

Environmental Needs Assessment (Summary)

Fleet: Sunshine Fisheries Ltd.

Gear: Longline

Species: Western and Central Pacific Yellowfin Tuna

Location: Solomon Islands EEZ, High Seas

In November 2015, an environmental assessment was conducted by Fishing & Living to assess the Sunshine Fisheries fleet against the MSC standard, with an interest to launch a basic FIP. The assessment results are based on in-person interviews with Fiji government officials, Sunshine Fisheries' fleet manager, captains and on other MSC assessment conducted for the longline tuna fisheries of Fiji and the Solomon Islands.

Fleet composition and areas of operation

Sunshine Fisheries's fleet consists of 19 vessels, 4 of which are Chinese flagged and licensed by China to operate on the high seas. The other 15 vessels are Fiji flagged and licensed by Fiji to operate on the high seas. All vessels are licensed by the Solomon Islands to operate in the Solomon Islands' EEZ.

MSC principle 1

Stock Status

The main target species of the client group is South Pacific Albacore and Yellowfin tuna, making up approximately 63% and 19% (respectively) of the total catch. Some Bigeye is caught as bycatch, accounting for approximately 10% of the catch. South Pacific Albacore and Yellowfin tuna are subject to regular stock assessments, conducted by the Oceanic Fisheries Program from the Secretariat of the Pacific community. The most recent stock assessment for South Pacific Albacore was conducted in 2015. The assessment results show that Albacore is currently not subject to overfishing ($F < F_{MSY}$) and not overfished ($B > B_{MSY}$). The most recent stock assessment for Yellowfin was conducted in 2014. The results show that recent level of fishing mortality is below F_{MSY} (meaning the stock is not subject to overfishing) and spawner potential is above SB_{MSY} (meaning the stock is not overfished). However, Biomass has been estimated to have declined steadily overtime, with most of the decline occurring in the waters of Indonesia, Philippines and Vietnam, where 61% of the biomass is located and where many juveniles are caught. Therefore, it is thought that most of the fishing impact occurs there. The fishery under assessment here does not operate in these waters.

Limit and Target Reference Points

Appropriate implicit target reference points (TRPs) are in place (B_{MSY} and F_{MSY}) and formal target reference points in the range of 40%, 50% and 60% $SBF=0$ are under discussion in a series of management objectives workshops. WCPFC has adopted a limit reference point (LRP) of 20% SB and work is on-going to define the risk level for exceeding the LRP.

Harvest Control Rules

At this point Harvest Control Rules have not been put in place but they are measures in place that aim to control fishing mortality. CMM 2014-01 is targeted particularly at reducing fishing mortality on bigeye

tuna, which is overfished. The objective for yellowfin is to maintain the stock at MSY level by restraining fishing effort, particularly on juveniles and by purse seine fleets (which account for the majority of the catch as noted above). The CMM sets out detailed measures to restrict effort for the purse seine fisheries, but for longline fisheries, parties are just encouraged not to increase effort. For both stocks, there are requirements for catch and effort data submission, as well as a stock assessment process as described above. The harvest strategy is not yet formalized to achieve management objective and not responsive to stock status. However, a process is in place to ensure formalization of the harvest strategy.

Stock assessment and information

There is an adequate method to conduct stock assessment of tuna species in the Western and Central Pacific Ocean and good information on fishery removals from longline, purse-seine and other fisheries from Indonesia, Philippines and Vietnam.

MSC Principle 2

Logbook and observer data for this fleet were not made available, therefore only qualitative information on primary and secondary species were obtained through interviews with captains and Sunshine Fisheries' fleet manager. Therefore, scores assigned to this fisheries were allocated based on similar fisheries in the region. For a complete and accurate assessment, this data would be needed.

Based on similar assessment, the following list of potential primary, secondary and ETP species was drawn.

Main primary species	Albacore tuna (for yellowfin UoC), yellowfin tuna (for Albacore UoC), Bigeye tuna
Potential minor primary species	Striped Marlin (Skipjack)
Potential main secondary species	Blue Shark, Mahi Mahi, Swordfish, Escolar, Black Marlin
Potential minor secondary species	Opah (moonfish), Sunfish, Oilfish, Barracuda
ETP species	Silky Sharks, Oceanic White tip, Loggerhead turtle, Olive Ridley turtle, Hawksbill turtle, green turtle

Bigeye tuna

According to the most recent stock assessment in 2014, the stock overfished and experiencing overfishing. Limit reference points for this stock are not defined in relation to the point of recruitment impairment, however estimates of recruitment from the stock assessment do not show evidence of changes in recruitment. There is no explicit rebuilding plan in place for bigeye tuna at present, although there is a strategy in place that aims to reduce fishing mortality on the stock (CMM 2014-01). While WCPFC measures for Bigeye does constitute a management strategy, there is little evidence about its effectiveness.

Sharks

At international level, as of September 2014, eight species of sharks and all manta rays present in the WCPO are included in CITES Appendix II and six species are listed on the CMS Appendices. At regional level, the WCPFC:

- Has an International Plan of Action for Sharks (IPOA Sharks) and other relevant shark policies to minimise unwanted shark catches and encourage the live release of incidental catches of shark (CMM-2014-05);
- Gives full protection to silky sharks (*Carcharhinus falciformis*) through CMM-2013-08 and oceanic whitetip sharks (*Carcharhinus longimanus*) through CMM-2011-04 in the Convention area, with mandatory immediate release of those caught during fishing operations;
- Has mandatory annual reporting obligations of shark catches in the fisheries, including fishing effort by gear type, noting sharks that are retained and discarded.
- CMM 2014-05 requires CMM to ensure that vessels comply with at least one of 2 options:
 - Do not use or carry wire traces as branch lines or leaders: or
 - Do not use branch lines running directly off the longline floats or drop lines, known as shark lines.

Solomon Islands

Solomon Islands has set management measures as part of its licensing system, including the banning of trace wires, 5% retention with shark fins attached and an assurance that shark finning is not taking place. MFMR has also adjusted its licensing rules to include the provision to prevent the landing of oceanic whitetip, silky sharks, hammerhead, great white sharks, porbeagles and manta rays. Evidence needs to be available that these rules are being applied. Solomon Islands will also underline its commitment to shark conservation by adopting a Shark NPOA. This work needs to be undertaken in cooperation with the Ministry of Environment.

Fiji

The 2012 license conditions for Fiji licensed vessels in now include the following:

- Vessels are only to carry on board Longline gears targeted at Tuna and Tuna like species. No drop line and shark line is to be carried on board (Condition 1: 1.3)
- All licensed vessels fishing in the archipelagic waters, the 12 miles territorial seas and the EEZ are to have on board fins that total no more than 5% of the weight of sharks on board. This license condition is subject to change in the period of the licensing condition (Condition 1: 1.4).
- All licensed vessels are to carry on board their Long line vessels, turtle mitigation gears (Condition 1: 1.5)
- Licensees are to submit to the Fisheries Licensing Office the following by fax (forms provided by Fisheries Department): summaries of actual fish landing by number of whole piece, by weights (kg), by vessel, by species immediately at the conclusion each discharge (Condition 2:1.4.1).

Outreach to Vessel operators and compliance

The Fiji Ministry sent a letter to operators (dated 21 June 2013) reminding them of WCPFC requirements in relation to sharks:

- WCPFC CMM 2010-07 para 7- 'CCM'S shall have on board fins that total no more than 5% of the weight of the sharks on board up to first point of landing'
- WCPFC CMM 2011-04 para 7- CCM's shall prohibit vessel flying their flags and vessels under charter arrangement to the CCM from retaining on board, transshipping, storing on the fishing

vessel, or landing any oceanic white tip shark, in whole or in part, in the fisheries covered by the convention.

Equipment on vessels

All Sunshine Fisheries vessels have:

- An anti-sharking policy
- Do not use Wire leaders
- Use monofilament

Turtles

All sea turtle species are listed under Appendix I of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and Appendices I and II of the CMS. At regional level, WCPFC CMM 2008-03 on the conservation and management of sea turtles requires the implementation of the FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations. The CMM also details reporting requirements for states, for example the obligation to specifically report in annual reports the progress of the implementation of the FAO Guidelines; including information collected on interactions with sea turtles in fisheries managed under the Convention. WCPFC longline vessels must carry and use line cutters and de-hookers to handle and promptly release sea turtles caught or entangled. Observer reports will note whether this is done, but this information is only available from individual reports, and not from the aggregated data provided by SPC.

Fiji

Sea turtles in Fiji are currently protected under the Fisheries Act (CAP 158) - Protection Of Turtles- Amendment, which was extended in 2010 to 2018. These Amendment Regulations prohibit people from in any molesting, taking or killing turtles of any species. All four species are CITES Appendix I listed by Fiji and are also all protected under the Endangered & Protected Species Act (2002). Interactions are rare as the gear is deep set, so incidental capture tends to be limited to accidental entanglement or hooking (e.g. around the flippers) as the gear is retrieved. All crew are trained (NMFS / McCoy (2009) & Fisheries Department (2011)) and equipped (dehooking tools / line cutters) to release any hooked turtles.

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At the national level, there is no single document that can be described as a formal plan as required by the CAP, elements which would constitute a plan have been implemented. The Fiji Sea Turtle Recovery Plan (Fiji Sea Turtle Steering Committee, 2008) provides a prioritised action plan for addressing sea turtle conservation, including a specific sub-component for 'assessing and mitigating bycatch'

Solomon Islands

CMM 2008-03 has not been applied in the licensing laws. Whilst accepted that interaction with sea turtles and deep set longlines is minimal, MFMR will apply sea turtle awareness and mitigation. This will be supported by the MSSIF programme, and specific actions will seek to establish the cooperation of WWF.

Outreach to vessel operators

This is a predominantly deep-set fishery (Fiji Fisheries - which represents around 25% of the UoC catch - sometimes target shallower yellowfin and bigeye over the new moon period). They all use circular hooks and whole sardines for bait, thus further reducing turtle bycatch incidence. The industry has undergone a couple of major awareness-building and training rounds, firstly by the US National Marine Fisheries Service (NMFS) in 2008 and more recently by the Fisheries Department in. This has covered awareness raising of the status of sea turtles and their potential vulnerability to longlines, mitigation approaches as well as release procedures should a turtle be hooked. All vessels have been provided with de-hooking and other tools and trained in their use.

Equipment on vessels

All Sunshine Fisheries vessels use circle hooks and have:

- Line cutters
- De-hookers

Observer data, Port Sampling, Logbooks

Vessels are required to complete the South Pacific (SPC) Regional Longline logsheet which allows reporting of catches of the major shark species (blue shark, hammerhead, mako, oceanic whitetip, porbeagle, silky and thresher sharks; the logbook has fields for number retained, kgs retained and number discarded). However, the logsheet does not have separations of the two pelagic and bigeye thresher sharks and no separation of the 4 hammerhead shark species.

Fiji

Fiji's Port Sampling coverage was at 15% for 2012 and 10% for 2013. In 2014, a total of 144 port sampling were achieved. This activity is carried out by observers whilst not on placement. Having a dedicated port sampler, with both the Fiji National and Regional Observers program observer's assistance, was able to cover vessels with an aim of sampling at least three vessels per week. The Fiji National Observer coverage for 2014 has risen to a high of 18.7%. Fiji observers are placed on board Fiji National Fleet covering waters from Fiji's archipelagic waters to areas beyond Fiji's national jurisdiction.

Solomon Islands

Logsheet coverage for the locally based foreign longliners in 2014 is more than 50%. MFMR proposes to move to e-logbooks for the longline fishery by 1 January 2016. PNAO is in the process of developing a longline catch logbook. The collection of log-sheets continue to be maintained at 99%. The Data Registrar ensures the reconciliation of log - sheets and the relevant landing data and VMS information sets.

Port sampling takes place in Honiara and Noro. In ports activity only covers the longline vessels. Longline unloading in these 2 ports continues to increase. Port sampling data is not available to present in this report.

Observer coverage on longliners remains under 5%. Observer coverage for the foreign longline fleet is flag state obligation. Progress in e-monitoring is expected to continue with cooperation between SPC, MFMR and NFD in 2015.

3 of Sunshine Fisheries' vessels are currently taking part in an e-monitoring trial.

Habitats

No noticeable issues.

Ecosystems

No noticeable issues.

MSC Principle 3

The key components of the governance and fishery management framework are:

1. The **Western Central Pacific Fisheries Commission (WCPFC)**, the tuna RFMO for the Western and Central Pacific Ocean, and;
2. The **Fiji national government** is responsible for ensuring management measures applied within Fiji waters are compatible with those of the WCPFC, and fishing by Fiji flagged vessels both within and beyond the Fiji EEZ is carried out in accordance with any measures put in place by WCPFC.
3. The **Solomon Islands national government** given that some of the vessels are licensed by the SI government and operating in Solomon Islands EEZ.
4. The **People Republic of China government** given that some vessels are licensed and flagged by China to fish in the high seas

Noticeable issues

Solomon Islands- Decision Making Process (PI 3.2.2)

The Ministry of Fisheries and Marine Resources does make some information available such as management plans, NPOA. Regulation undergoes scrutiny by the Fishery Advisory Council and other stakeholders. The information on the rationale for decision making is not readily available but minutes of the Fishery Advisory Council provide rationale for FAC recommendations and are available upon request. The Minister provide a letter to the FAC with an explanation of why certain recommendations are not adopted. However, these explanations are not made available to the public.

High Seas – Decision Making Process (PI 3.2.2)

For the High Seas, only the regional level decision-making processes apply. These are probably sufficient to meet the SG60 level, but tend to be slow (because of the consensus requirement) and may only respond to the most important issues.

High Seas- Compliance and enforcement (PI 3.2.3)

At the regional level, the WCPFC aims to ensure compliance through a range of sanctions notably through VMS, black listing of IUU vessels, port state controls, observers and logbooks. Port inspection reports provide evidence that they are being applied. Logbook data are supplied as part of licence requirements; VMS and observer reports provide additional evidence of general compliance with the management system. There is no evidence of systematic non-compliance, however a paper by Gilman and Kingman (2013) provides insight into the major deficiencies in the WCPFC's transparency regarding compliance by member countries: *"The lack of a WCPFC process to respond to non-compliance by Members and Cooperating Non-members, a prohibition on States from using information on non-compliance with WCPFC obligations unilaterally, in combination with a substantial lack of transparency*

in information on compliance, including due to lax reporting, collectively are inadequate incentives for compliance.” Evidence of enforcement of already agreed sanctions; such as deduction when countries exceed their catch limits for bigeye tuna under CMM 2014-01 still needs to be demonstrated.

Preliminary scores

Component	PI No.	PI	Solomon Islands	Fiji	High Seas
Outcome	1.1.1	Stock status	90	90	>80
	1.1.2	Reference Points	90	90	60-70
	1.1.3	Stock rebuilding			
Management	1.2.1	Harvest strategy	70	70	60-70
	1.2.2	Harvest control rules & tools	60	60	60
	1.2.3	Information & monitoring	90	90	>80
	1.2.4	Assessment of stock status	95	95	>80
Primary Species	2.1.1	Outcome status	60-70	60-70	60-70
	2.1.2	Management Strategy	<60	<60	<60
	2.1.3	Information	<60	<60	<60
Secondary Species	2.2.1	Outcome status	60-70	60-70	60-70
	2.2.2	Management Strategy	60-70	60-70	60-70
	2.2.3	Information	<60	<60	<60
ETP Species	2.3.1	Outcome status	<60	<60	<60
	2.3.2	Management Strategy	60-70	60-70	60-70
	2.3.3	Information	60-70	60-70	60-70
Habitats	2.4.1	Outcome status	>80	>80	>80
	2.4.2	Management Strategy	>80	>80	>80
	2.4.3	Information	>80	>80	>80
Ecosystem	2.5.1	Outcome status	>80	>80	>80
	2.5.2	Management Strategy	>80	>80	>80
	2.5.3	Information	>80	>80	>80
Governance and Policy	3.1.1	Legal and/or customary Framework	85	95	>80
	3.1.2	Consultation, Roles and Responsibilities	95	85	>80
	3.1.3	Long term Objectives	90	90	>80
Fishery Specific management system	3.2.1	Fishery Specific objectives	90	80	>80
	3.2.2	Decision making processes	75	85	60-70
	3.2.3	Compliance & enforcement	85	80	60-70
	3.2.4	Monitoring and management performance	80	80	>80