Three-Year Audit Template

Sri Lanka Longline Fishery for Yellowfin Tuna, Bigeye Tuna & Swordfish

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Basic FIP information

Target species scientific name and common name	• Yellowfin Tuna (*Thunnus albacares)* • Bigeye Tuna (*Thunnus obesus*) • Swordfish (*Xiphius gladius*)	
Fishery location	Exclusive Economic Zone (EEZ) of the Democratic Socialist Republic of Sri Lanka and the north-west waters of the Indian Ocean FAO Fishing area - • Area 51 (Indian Ocean, Western) • Area 57 (Indian Ocean, Eastern)	
Gear type(s)	Longline	
Catch quantity (weight)	Yellowfin Tuna – 7,390.0 metric ton Bigeye Tuna - 1,422.2 metric ton Swordfish - 1,486.9 metric ton	
Vessel type(s) and size(s)	The Sri Lankan vessels licensed for large pelagic longline fishing within the 200-mile Sri Lankan EEZ and on the High Sea waters of the Indian Ocean that carry longline gear only. Only the vessels >10.3m in length are permitted by DFAR to engage in high-seas fishing.	

Number of vessels	224	
Management authority	IOTC & Seafood Exporters' Association of Sri Lanka	

Stakeholder consultation & meetings

Name	Affiliation	Date and Subjects Discussed
Mr. Nuwan Gunawardana	Director, Information Technology Division, Department of Fisheries and Aquatic Resources	29th June, 2021: Local observer programme
Mr. Viraj Balapitiya	Director Finance, Jay seafood processing and Member of Seafood Exporters Association of Sri Lanka	30th June, 2021: Changes brought about by FIP Market challenges
Ms. Kalyani Hewapathirana	Director, Fisheries Operation Division, Department of Fisheries and Aquatic Resources	2nd July, 2021: MCS system Fishery regulations in Sri Lanka Penalties, sanctions etc Compliance to IOTC Local observer programme ETP species
Mr. Ruwan Fernando	Secretary of the Multi day Boat Owners Association	3rd July, 2021: Local observer programme Non-compliance Sanctions Grievances addressing
Mr. Steve Creech	pelagikos Pvt Ltd	5th July, 2021: Local observer programme IOTC compliance ETP species Lost gear Bait fishes
Ms. Eranga Gunasekera	pelagikos Pvt Ltd	

Summary of MSC performance indicator scores

UoA1 – Yellowfin Tuna (*Thunnus albacares*) Indian Ocean Stock

Principle	Component	Performance Indicator		Current Score	Rationale and Justification
1	Outcome	1.1.1	Stock status	60-79	Yellowfin tuna is assumed to be a single stock across Indian Ocean. This is supported by the tag recoveries that provide evidence of large movements of yellowfin tuna. Latest stock status is determined on the basis of the 2018 assessment and other information presented in 2020. The 2018 stock assessment was carried out using Stock Synthesis III (SS3) a fully integrated model that is currently used to provide scientific advice for the three tropical tunas stocks in the Indian Ocean. According to the information available in 2019, the total catch has remained relatively stable at levels around the estimated MSY since 2012 (i.e., between 339,000 MT and 436,000 MT), with the 2018 catch being the largest since 2010 (440,833 MT), and exceeding the MSY range considering the best catch estimate by the Scientific Committee (Source. WPTT report). The stock assessment results are in Table: 1. However, it is noted that the quantified uncertainty in stock status is likely underestimating the underlying uncertainty of the assessment. On the weight-of-evidence available in 2018, 2019 and 2020, the yellowfin tuna stock is determined to remain overfished and subject to overfishing (Table 1). The stock is assessed currently to be below SB_{MSY}. Therefore, though SG 60 is met, it doesn't meet SG 80 and 100.

<table>
<tr><td></td><td></td><td></td><td></td><td></td><td>Table 1 Status of yellowfin tuna (Thunnus albacares) in the Indian Ocean
<table>
<tr><th>Parameter</th><th>Value</th></tr>
<tr><td>F2017/FMSY</td><td>1.20 (1.00 -1.71)</td></tr>
<tr><td>SB2017/SBMSY</td><td>0.83 (0.74-0.97</td></tr>
<tr><td>SB2017/SB0</td><td>0.30 (0.27 – 0.33)</td></tr>
<tr><td>MSY</td><td>403, 000 t (339–436,000 t)</td></tr>
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<tr><td></td><td></td><td>1.1.2</td><td>Stock rebuilding</td><td><60</td><td>FishBase Generation time for Thunnus albacares = 3.6 years.
The decline in stock status to below MSY reference level is not well understood due to various uncertainties. As a precautionary measure, the Commission should ensure that CPCs take all necessary action to achieve the catch reductions in their fleets, as per Res 19/01, to reduce overfishing. It is recommended that catches be reduced to a level at least below the CMSY estimate (403, 000 MT) from the 2018 assessment until new information based on the 2021 stock assessment and its associated projections are carried out. It is reminded that F2017 was 20% above the target reference point.
A workplan has been developed to address the issues identified by the WPTT and the external reviewer in 2018 and started implementation from 2019.
In 2019, using 2018 catch data available and the Resolution 18/01 in force, according to the report of the 21st session of WPTT (IOTC–2019–WPTT21), YFT catches from all fleets subject to Resolution I 18/01 had decreased by 15% from 2014/2015 levels, but in fact the IO-wide overall YFT catch increased by 10% in the same period (reaching the same level as reported in 2007), as the decrease in catches reported by such fisheries was offset by increases in the catches from some fisheries exempt from limitations on their catches of yellowfin tuna.
(Ref: IOTC-YFN-Report., Naunet Consultants)</td></tr>
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					There is no evidence that the rebuilding plan is succeeding. The interim plan for rebuilding Yellowfin tuna stock by IOTC (IOTC-2021-SS4-PropC_Rev1) lists out a management plan, which could help in improving the stock. Amendment 21/01 proposes measures like – • Reduce and maintain overall yellowfin tuna catch in the Indian Ocean at 394,291t • Eliminate exemptions provided for in 16/01 (superseded by 17/01, then by 18/01 then by 19/01) • Reduce the role of supply vessels in purse seine operations to reduce fishing pressure on juvenile yellowfin tuna • Differentiate reductions based on development status of CPCs as reflected in UN Fish Stocks agreement • Reduce burden on CPCs that are subjected to catch reductions/gear change by other IOTC resolutions • Strengthen the penalty, compliance and monitoring mechanisms. IOTC is planning to implement the resolution all fishing vessels targeting tuna and tuna like species in the Indian Ocean with effect from January 1st, 2022. This seems like a rebuilding plan and monitoring is in place to measure the effectiveness of the current strategy. Even though the interim plan 21/01 hopes to rebuild the fishery, it is not clear that the objectives can be achieved with two countries lodging formal objections (Indonesia and Oman) and three countries voting against the resolution at the 25th Session of the Commission (Iran, India and Madagascar). On grounds of precaution this PI is scored below 60 for now.
	Management	1.2.1	Harvest Strategy	60-79	In recent years catches have been evenly split between industrial and artisanal fisheries. Purse seiners (free and associated schools) and longline

					fisheries still account for around 50% of total catches, while catches from artisanal gears – namely handline, gillnet, and pole-and-line – have steadily increased since the 1980s (IOTC, 2016b). There is a harvest strategy in place that is expected to achieve stock management objectives reflected in PI 1.1.1. SG 80 score. There have been a series of interim plans developed for the recovery of the yellowfin stock in the Indian Ocean, (the latest is 21/01) through sanctions and other measures to manage the depletion of stocks, but it is doubtful that it has achieved its objectives. IOTC is periodically reviewing the strategy and is giving guidelines to member nations through interim plans. The target species is not shark and there is no unwanted catch in the fishery. Therefore, the PI does not meet SG 80, but it meets SG 60.
		1.2.2	Harvest control rules and tools	<60	Currently the IOTC has developed and adopted HCRs for only skipjack tuna (Katsuwonus pelamis). There are interim recovery plans revised every year aiming to reduce the exploitation rate as it nears PRI, but there is no evidence that they are effective in controlling exploitation rates. The Harvest rules and tools PIs are not likely to be met for: • Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached (SG 60 a) • The HCRs are likely to be robust to the main uncertainties and are appropriate and effective (SG 80a/b/c). Until clear harvest rules are implemented by IOTC, it is questionable if PI 1.2.2 meets with the SG 60 guidepost and require a condition.

		1.2.3	Information and monitoring	60-79	The member nations are providing sufficient relevant data related to stock structure, stock productivity, fleet composition to IOTC. Catches and effort data are poor for the Sri Lankan longline-gillnet fishery, although this is not part of the UoA. Sri Lanka has improved data collection of its long line fishery considerably. Sri Lanka submits data annually to IOTC which is used to update stock assessments and guide Management Strategy Evaluation and Operational management actions. Data are considered to be generally well known for the major industrial fisheries. Catches are less certain for artisanal coastal fisheries. Therefore SG 80 is not met.
		1.2.4	Assessment of stock status	100	No new stock assessment was carried out for yellowfin tuna in 2020, thus, stock status is determined on the basis of the 2018 assessment and other information presented in 2020. The assessment is appropriate for the stock, takes into account the biological features of the species and stock (spawning grounds, growth rates, diet, tag-recapture etc.). Individual member states submit National statistical reports to the IOTC informing the RFO of the nature of the UoA for incorporation into assessments. The assessment estimates stock status relative to reference points that are appropriate to the stock. The assessment takes uncertainty into account and estimates stock status with a statistical degree of confidence (usually at intervals of 80% confidence). The assessment is robust and alternate approaches have been explored with similar results. There is internal and external peer review for IOTC assessments. This meets SG 60, 80 and 100.

UoA2 – Bigeye Tuna (*Thunnus obesus*) Indian Ocean Stock

Principle	Component	Performance Indicator		Current Score	Rationale and Justification
1	Outcome	1.1.1	Stock status	60-79	In 2019 a new stock assessment was carried out for bigeye tuna in the IOTC area of competence to update the stock status undertaken in 2016. Two models were applied to the bigeye stock (JABBA and Stock Synthesis (SS3)). The stock assessment selected to provide scientific advice was carried out using SS3, a fully integrated model used to provide scientific advice for the three tropical tuna stocks in the Indian Ocean. Spawning biomass in 2018 was estimated to be 31% of the unfished levels in 2018 and 122% (82–181%) of the level that can support MSY. The assessment outcome is qualitatively different to the stock assessment conducted in 2016 due to the increase of catch of small size, changes in modelling assumptions about longline selectivity, and the abundance index developed in 2019. Catches in 2018 (~81,413 MT) remain lower than the estimated median MSY values from the stock assessment conducted in 2019 but within the range of estimated MSY. The average catch over the previous five years (2014–18; ~89,717 MT) is just above the estimated median MSY and within the range of estimated values. Thus, on the weight-of-evidence available in 2019, the bigeye tuna stock is determined to be not overfished but subject to overfishing (Table 2). Considering the SB2018 / SBMSY value and the current spawning biomass, it is highly likely that the stock is above a level consistent with MSY, and therefore that there is a high degree of certainty that the stock is above the PRI and therefore, SG60 requirements are met. SG 80 and SG 100 are not met, because according to IOTC 2020, on the weight-of-evidence available in 2019, the bigeye tuna stock

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<tr><td></td><td></td><td></td><td></td><td></td><td>is determined to be not overfished but subject to overfishing. The SS3 projections from the 2019 assessment show that there is a risk of breaching MSY-based reference points by 2021, and 2028 if catches are maintained at 2018 levels at the2018 selectivity and therefore size distribution of catch.

Table 2. Status of bigeye tuna (Thunnus obesus) in the Indian Ocean<table><tr><td>Parameter</td><td>Value</td></tr><tr><td>F2018 / FMSY</td><td>1.20 (0.70-2.05)</td></tr><tr><td>SB2018 / SBMSY</td><td>1.22 (0.82-1.81)</td></tr><tr><td>SB2018 / SB0</td><td>0.31 (0.21-0.34)</td></tr><tr><td>MSY</td><td>87,000 t (75-108,000 t)</td></tr></table></td></tr>
<tr><td></td><td></td><td>1.1.2</td><td>Stock rebuilding</td><td></td><td>NA</td></tr>
<tr><td></td><td>Management</td><td>1.2.1</td><td>Harvest Strategy</td><td>60-79</td><td>Resolution 15/10 On Target and Limit Reference Points and a Decision Framework lays out the interim target and limit reference points for Big eye tuna-
BTARGET=BMSY BLIM=0.50BMSY
FTARGET =FMSY FLIM=1.30FMSY
Industrial fisheries account for the majority of catches of bigeye tuna. The harvest strategy (interim rebuilding plan Res. 15-10) is expected to achieve stock management objectives reflected in PI 1.1.1 (SG 60), but not SG 80 or 100. It cannot be said with high confidence that the harvest strategy is responsive to the state of the stock as SS3 projections from the 2019 assessment show that there is a risk of breaching MSY-based reference points by 2021, and 2028 if catches are maintained at 2018 levels at the2018 selectivity and therefore size distribution of catch (IOTC 2020).</td></tr>
<tr><td></td><td></td><td>1.2.2</td><td>Harvest control rules and tools</td><td><60</td><td>Currently the IOTC has developed and adopted HCRs for only skipjack tuna (Katsuwonus pelamis). There are interim recovery plans revised every year aiming to reduce the exploitation rate as it nears PRI. The fishery is not yet overfished, but it is subject to overfishing. It is proposed that should the</td></tr>
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					management objective of maintaining biomass at levels higher than SBMSY with more than 50% probability in 2028 be pursued, the overall catch should be reduced 10% from 2018 levels (73,272 MT). The Harvest rules and tools PIs are not likely to be met for: • Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached (SG 60 a) • The HCRs are likely to be robust to the main uncertainties and are appropriate and effective (SG 80a/b/c). Until clear harvest rules are implemented by IOTC, it is questionable if PI 1.2.2 meets with the SG 60 guidepost.
		1.2.3	Information and monitoring	60-79	Bigeye tuna in the Indian Ocean is currently subject to many Conservation and Management Measures adopted by the Commission: • Resolution 15/01 on the recording of catch and effort by fishing vessels in the IOTC area of competence • Resolution 15/02 mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPC's) • Resolution 14/02 for the conservation and management of tropical tuna stocks in the IOTC area of competence. • Resolution 14/05 concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information • Resolution 10/08 concerning a record of active vessels fishing for tunas and swordfish in the IOTC area. Continued monitoring and improvement in data collection, reporting and analysis is required to reduce the uncertainty in assessments (IOTC, 2016a).

					Catches and effort data are poor for the Sri Lankan longline-gillnet fishery, although this is not part of the UoA. Sri Lanka has improved data collection of its long line fishery considerably. Sri Lanka submits data annually to IOTC which is used to update stock assessments and guide Management Strategy Evaluation and Operational management actions. Data are considered to be generally well known for the major industrial fisheries. Catches are less certain for artisanal coastal fisheries. Therefore SG 80 or 100 is not met.
		1.2.4	Assessment of stock status	100	In 2019 a new stock assessment was carried out for bigeye tuna in the IOTC area of competence to update the stock status undertaken in 2016. Two models were applied to the bigeye stock (JABBA and Stock Synthesis (SS3)). The stock assessment selected to provide scientific advice was carried out using SS3, a fully integrated model used to provide scientific advice for the three tropical tunas stocks in the Indian Ocean. The reported stock status is based on the SS3 model formulation using a grid of 18 model configurations designed to capture the uncertainty on stock recruitment relationship, the influence of tagging information and selectivity of longline fleets. Due to concerns on the reported catch data for 2018, the stock status is based on SS3 model formulations using the best catch estimate by the Scientific Committee. The assessment estimates stock status relative to reference points that are appropriate to the stock. The assessment takes uncertainty into account and estimates stock status with a statistical degree of confidence (usually at intervals of 80% confidence). The assessment is robust and alternate approaches have been explored with similar results. There is internal and external peer review for IOTC assessments. This meets SG 60, 80 and 100.

UoA3 –Swordfish (*Xiphius gladius*) Indian Ocean Stock

<table>
<tr><th>Principle</th><th>Component</th><th>Performance Indicator</th><th></th><th>Current Score</th><th>Rationale and Justification</th></tr>
<tr><td>1</td><td>Outcome</td><td>1.1.1</td><td>Stock status</td><td>>80</td><td>A new assessment was undertaken in 2020 using stock synthesis with fisheries data up to 2018. The assessment uses a spatially disaggregated, sex explicit and age structured model. The SS3 model, used for stock status advice, indicated that MSY-based reference points were not exceeded for the Indian Ocean population as a whole (F2018/FMSY< 1; SB2018/SBMSY> 1). The two alternative models (ASPIC and JABBA) applied to swordfish also indicated that the stock was above a biomass level that would produce MSY. Spawning biomass in 2018 was estimated to be 40-83% of the unfished levels. Most recent catches of 32,671 MT in 2019 are just below the MSY level (33,000 MT). On the weight-of-evidence available in 2020, the stock is determined to be not overfished and not subject to overfishing. Considering the SB2018 / SBMSY value and the current spawning biomass, it is highly likely that the stock is above a level consistent with MSY, and therefore that there is a high degree of certainty that the stock is above the PRI and therefore, SG60 and SG80 requirements are met. SG 100 is not met as it cannot be said with 95% confidence that the stock is above PRI.

(Table 3)
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<tr><th>Parameter</th><th>Value</th></tr>
<tr><td>F2018 / FMSY</td><td>0.60 (0.40–0.83)</td></tr>
<tr><td>SB2018 / SBMSY</td><td>1.75 (1.28–2.35)</td></tr>
<tr><td>SB2018 / SB0</td><td>0.42 (0.36–0.47)</td></tr>
<tr><td>MSY</td><td>33,000 t (27–40,000t)</td></tr>
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		1.1.2	Stock rebuilding		NA
	Management	1.2.1	Harvest Strategy	>80	Currently, there are no catch limits for Swordfish stock. Under the current levels of catches, the spawning biomass is projected to remain relatively stable, with a high probability of maintaining at or above the SB_{MSY} for the longer term (IOTC 2020). Swordfish in the Indian Ocean is currently subject to a number of Conservation and Management Measures adopted by the Commission, although none are species specific There is no TAC in place, but fishing effort has been reduced since effort limitations were put into place (IOTC 2013). The 2019 assessment indicated recent catches are at maximum sustainable yield (MSY) levels. The most recent catches (32,671 MT in 2019) are at approximately the MSY level (33,000 MT). According to the scientific committee, under the current levels of catches, the spawning biomass is projected to remain relatively stable, with a high probability of maintaining at or above the SBMSY for the longer term. Nevertheless, the Commission should consider limiting the catches so as not to exceed the 2018 catch level (30,847 t) to ensure that the probability of exceeding the SBMSY target reference points in the long term remains minimal (2%). Considering the present state of stock and management advice in IOTC 2020, the PI scores SG 80, but not SG 100.
		1.2.2	Harvest control rules and tools	<60	Currently the IOTC has developed and adopted HCRs for only skipjack tuna (Katsuwonus pelamis). Currently the stock of Sword fish is determined to be not overfished and not subject to overfishing (IOTC 2020). There are interim management plans revised every year aiming to reduce the exploitation rate as it nears PRI. The Harvest rules and tools PIs are not likely to be met for:

					• Generally understood HCRs are in place or available that are expected to reduce the exploitation rate as the point of recruitment impairment (PRI) is approached (SG 60 a) • The HCRs are likely to be robust to the main uncertainties and are appropriate and effective (SG 80a/b/c). Until clear harvest rules are implemented by IOTC, it is doubtful that PI 1.2.2 meets with the SG 60 guidepost.
		1.2.3	Information and monitoring	60-79	There is one overarching species-specific management measure for swordfish in the Indian Ocean, which limits the fishing capacity to 2007 levels. Other measures which also apply to swordfish include: recording of catch and effort information, recording of licensed and authorized foreign fishing vessels, regional observer program and maintaining a record of active fishing vessels (IOTC 2014). The Compliance Committee indicated that reporting of mandatory statistics is generally poor, due to incomplete and/or poorly documented data, although an improvement was noted in 2012 (IOTC 2013b). There is no TAC in place, but fishing effort has been reduced since effort limitations were put into place (IOTC 2013). Swordfish in the Indian Ocean is currently subject to many Conservation and Management Measures adopted by the Commission, although none are species specific: • Resolution 15/01: On the recording of catch and effort by fishing vessels in the IOTC area of competence • Resolution 15/02: Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPC's) • Resolution 14/05: Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC

					area of competence and access agreement information • Resolution 12/11 On The implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties • Resolution 11/04: On a regional observer scheme • Resolution 10/08: Concerning a record of active vessels fishing for tunas and swordfish in the IOTC area It is to be noted that the most recent catches (32,671 MT in 2019) are at approximately the MSY level (33,000 MT). Projections indicate that an increase of 40% or more from 2018 catch levels will likely result in the biomass dropping below the SBMSY level for the longer term (>75% probability). Sri Lanka has improved data collection of its long line fishery considerably. Sri Lanka submits data annually to IOTC which is used to update stock assessments and guide Management Strategy Evaluation and Operational management actions. The local observer programme implemented by the FIP is quite efficient in collecting data from long line vessels after its first stage of implementation. The FIP is hoping to extend this to other vessels targeting tuna.
		1.2.4	Assessment of stock status	100	A new assessment was undertaken in 2020 using stock synthesis with fisheries data up to 2018. The assessment uses a spatially disaggregated, sex explicit and age structured model. The SS3 model was used for stock advice, but two alternate models, ASPIC and JABBA, were also applied. The assessment estimates stock status relative to reference points that are appropriate to the stock. The assessment takes uncertainty into account and estimates stock status with a statistical degree of confidence (usually at intervals of 80% confidence). The assessment is robust and alternate approaches have been explored with similar results. There is

					internal and external peer review for IOTC assessments. This meets SG 60, 80 and 100.
2	Primary species	2.1.1	Outcome	UoA 1, 2 & 3- 60-79	For UoA 1- Main Primary species are- • Bigeye – SG 60 is met as it is likely to be above PRI, but recent IOTC assessment does not consider Bigeye to be highly likely to be above PRI, so SG 80 is not met. • Sword fish – SG 60 & SG 80 are met in case of Sword fish, with recent IOTC assessment. The stock is highly likely to be above PRI, but SG 100 is not met as the management advice is that if fishing continues at the 2018 level, the stock may be overfished. For UoA 2 – Main Primary species are – • Yellow fin – SG 60 is met. The stock is currently below PRI, but the interim plan to rebuild the stock published in 2021 (IOTC-2021-SS4-PropC_Rev1) proposes management measures that are expected to ensure that the UoA does not hinder recovery and rebuilding. SG 80 or 100 is not met. • Sword fish – SG 60 & SG 80 are met in case of Sword fish, with recent IOTC assessment. The stock is highly likely to be above PRI, but SG 100 is not met as the management advice is that if fishing continues at the 2018 level, the stock may be overfished. For UoA 3 - Main Primary species are – • Yellow fin – SG 60 is met. The stock is currently below PRI, but the interim plan to rebuild the stock published in 2021 (IOTC-2021-SS4-PropC_Rev1) proposes management measures that are expected to ensure that the UoA does not hinder recovery and rebuilding. SG 80 or 100 is not met. • Bigeye – SG 60 is met as it is likely to be above PRI, but recent IOTC assessment does

					not consider Bigeye to be highly likely to be above PRI, so SG 80 is not met. Minor Primary species for the 3 UoA s are – • Skipjack – SG 100 is met as the stock is above PRI and is not overfished. (ISSF Technical Report 2021-10) • Albacore – SG 100 met as the stock is still above PRI, but there is a probability of overfishing. Therefore, there is a possibility for the score to change by next assessment. (ISSF Technical Report 2021-10) • Black Marlin – SG 100 is met as the 2018 assessment estimates the stock to be above PRI. But the report is also indicating many uncertainties in assessment and is advising caution. • Blue Marlin – SG 100 is met as the 2018 assessment is estimating the stock to be near MSY, but it is also indicating that the stock is subject to overfishing, though not overfished in the recent years. • Striped Marlin – SG 100 is not met as the 2017 assessment indicates it as below MSY and is giving a status of overfished. • Indo-Pacific sailfish – SG 100 is met as 2018 assessment indicates stock near MSY, but not yet overfished. • Blue shark – SG 100 met as per 2017 assessment; the stock is assessed to be above PRI
		2.1.2	Management strategy	60-79	SG 60 is met for all main Primary species for all UoAs as there are measures in place to maintain or rebuild the stock at PRI and they are likely to work based on plausible argument. But SG 80 or 100 is not met as it cannot be said with confidence that these measures are working, especially in the case of Yellowfin tuna and there is no clear evidence that the measures are

					implemented successfully. Shark finning is not taking place in Sri Lanka. The laws expect shark to be landed as whole and there is strict monitoring and enforcement at harbours to ensure this. Quantitative evidence for this could help in full assessment to score better. There is no unwanted catch of Primary species in the UoA.
		2.1.3	Information	>80	Main Primary species - Some quantitative evidence is available and is adequate to assess the impact of the UoA on the main primary species with respect to status. The information is adequate to support a partial strategy to manage the stock. Therefore, SG 60 & 80 are met. As there are many uncertainties in the data, SG 100 is not met. Minor Primary species – SG 100 is met as some quantitative information adequate to estimate the impact of the UoA on minor primary species with respect to status.
	Secondary species	2.2.1	Outcome	100	Main Secondary species – There are no main secondary species in the fishery, Minor Secondary species – • Escolar – Meets SG 100 as the stock is not under threat of over exploitation. • Ribbon fish – Meets SG 100 as it is listed as of least concern in fishbase. • Indo-Pacific king mackerel – A preliminary assessment in 2016 reports the species is not overfished. This meets SG 100. • There are many other minor secondary species but as their proportion in the catch is very low, it is not considered in this assessment. • In addition to this the bait species used can also be considered as minor secondary species. The major bait species is Milkfish (*Chanos chanos)* which is imported from the

					aquaculture ponds of Indonesia. The FIP has information on the quantity and companies importing them, so this meets SG 80. • Othe bait species include- ○ Indian scad (*Decapterus russelli*) ○ Bigeye scad *(Selar crumenophthalamus)* ○ Locally caught flying fish The quantity of these fishes caught from Sri Lankan waters is not available, but the quantity from IOTC areas is available. With this it is estimated to be less than 1%. Fishbase reports both the species to be of least concern, therefore it meets SG 100. It would be good the FIP collects more information on bait species before it plans a full assessment.
		2.2.2	Management strategy	Minor-60-79	There are no management measures particular to Secondary species. The catch of secondary minor species is regularly monitored through Local observer programme and harbour patrolling. The proportion of secondary species is very low in the total catch of the three UoA's. Thus SG 60 is met for minor species. Shark is not a secondary species, and Sri Lankan laws ensure that Shark is landed whole. It is understood that there is no unwanted catch in the UoA, but quantitative evidence to substantiate shark finning and unwanted catch will help improve score.
		2.2.3	Information	Minor-80	DFAR is collecting information regarding all catches including minor secondary species. This information is enough to form a partial strategy for managing minor secondary species. Thus SG 60 & 80 are met. As it cannot be said with adequate certainty that all information regarding minor secondary species is collected, SG 100 is not met.

	ETP species	2.3.1	Outcome	60-79	There are no national and/or international requirements that set limits for the ETP species that interact with the Sri Lankan Tuna Fishery. The FIP had almost no information regarding ETP species when it started. This has improved considerably. The Local observer programme which is entering the fourth phase after successfully completing three phases has been instrumental in data collection of ETP species. • Mobulid rays – there is relatively very low number of interactions per annum (i.e. less than 30% of the total fishing mortality) and the all individuals of the Chilean devil ray are released permitting the likely survival of some of the released animals the known direct effects of the UoA are therefore highly likely to not hinder recovery, such that SG60 and SG80 are met. The numbers and volumes of spinetail devil ray and smoothtail mobula per annum are insignificant compared with the total estimated fishing mortality in the Indian Ocean (Garcia and Herrea estimate total mortality at 10 500 tons per annum). Despite that ALL individuals are retained in contravention of Res. 19/03, the known direct effects of the UoA are considered highly likely to not hinder recovery, such that SG60 and SG80 are met. One cannot say with a high degree of confidence that the effect of the Sri Lanka tuna fleet on the population is not having a significant detrimental effect on the species, SG100 is not met. • Silky shark - The catch of silky shark by the UoA component of the Sri Lankan coastal longline fleet represents approximately 0.067% of the total fishing mortality in the

					Indian Ocean. At such a low level relative to the total fishing mortality the impact of the UoA can be deemed highly likely to not be hindering recovery of the species. SG60, SG80 are met. Without an estimate of the total population size or stock assessment it is not possible to conclude this with a high degree of certainty - SG100 is not met. • Thresher sharks – The LOP reports that some thresher sharks (32) are still retained by the fishery, most are either discarded dead (39) or alive (16). The number caught by UoA is extremely low so that it can be concluded highly likely that the UoA is not causing significant detrimental direct effects on these species, SG60, SG80 are met. Without an estimate of the total population size or stock assessment it is not possible to conclude this with a high degree of certainty - SG100 is not met. • Oceanic whitetip shark – The estimated average annual volume of oceanic whitetip caught by the UoA is 0.7 ton or 766 individuals. LOP has reported that majority of them are discarded alive, only few are discarded dead. At the extremely low level of incidence in the Unit of Assessment, and considering that about half the individuals are released alive, it can be concluded highly likely that the UoA fishery is not causing significant detrimental direct effects on this species, SG60, SG80 are met. Without an estimate of the total population size or stock assessment it is not possible to conclude this with a high degree of certainty - SG100 is not met.

					• Common bottlenose dolphin – the LOP reported a total of 20 interactions with this species in 3 years. In all instances the dolphins were reported released alive. The species is ranked as Least Concern by the IUCN and at such a relatively low level of incidence and considering the LOP reports all individuals are released alive one can conclude that the UoA is highly likely to not be hindering recovery of this species. SG60 and SG80 are met. Without a stock assessment it is not possible to conclude this with a high degree of certainty that the UoA is not hindering recovery of the species - SG100 is not met. • Sea turtles – the fishery LOP reported interactions with leatherback, loggerhead and olive Ridley turtles. The LOP reported a total of 43 leatherback turtles over 3 years with 28 discarded dead and 13 discarded alive; 13 loggerhead turtles and 256 Olive Ridley turtles all of which were reported discarded alive. For Olive Ridley and loggerhead turtles one can conclude that at the low level of incidence and considering live release of all individuals that the UoA is likely not to hinder recovery of those species. SG60 is met for these two species. Without better estimates of the number of interactions, the fate/post-capture mortality of each individual and without accurate estimates of population size or a stock assessment one cannot conclude that the fishery is highly likely not hindering recovery of the two species - SG80 and SG100 are not met. For the leatherback turtle the Sri Lankan longline fishery is estimated to be responsible for approximately 14% of catches

					in the Indian Ocean annually and the reported high level of mortality in the UoA suggests that the impact of the UoA is not insignificant and therefore one cannot conclude that the fishery is not likely hindering recovery of the species. Further information is required to score this species, but enough information to do an RBF is available. Potential indirect effects may include reduced availability of prey items for ETP species due to their removal by the UoA; disturbance of nesting behaviour for sea turtles; perturbation of pelagic ecosystem balance. More information on each of these possible indirect effects should be collected to inform scoring of this issue. Until then it cannot be concluded that indirect effects are highly likely to not create unacceptable impacts. SG80 is not met.
		2.3.2	Management strategy	60-79	ETP species include silky shark, thresher sharks, devil rays and mobulid rays, oceanic whitetip shark, common dolphin and sea turtles. Giant manta rays and Mobula species – These species are the focus of IOTC Resolution 19/03. Oceanic whitetip shark, bigeye thresher shark, hammerhead sharks, shortfin mako, silky shark – Various IOTC Resolutions are focused on the management of shark species, and on oceanic whitetip shark specifically. (Resolution 13/06, 13/05, 17/05 & 12/09) of IOTC. Sea Turtles – Turtle species are the focus of Resolution 12/04. The Shark Fisheries Management Regulations, 2015, prohibits the finning of any shark species at sea or the transhipment of fins and prohibits the catching and landing of the following species: Shark species of the Family Alopidae;

					a. *Alopias vulpinus* b. *Alopias superciliosus* c. *Alopias pelagicus* *Carcharhinus longmanus* *Rhincodon typus*. NPOA sharks was first finalized in 2013 then revised in 2018 for implementation from 2018-2022. An update on the progress of the implementation of the FAO Guideline to Reduce Sea Turtle Mortality in Fishing Operation in 2019 was submitted to IOTC in March 2020. Marine turtles are legally protected in Sri Lanka and it is prohibited to catch them. Longline vessels are required to have dehookers for removal of hooks and a line cutter on board, to release the caught marine turtles. Reporting of bycatch has been made legally mandatory and facilitated via logbooks. Overall, the abovementioned measures require the collection and reporting on information on each of the species' groups and the UoA has in place the Local Observer Program to monitor a small portion of the vessels are adhering to those requirements through use of at-sea observers/crew by recording all catch from 3 sets per trip. In addition, the fleet submits catch returns and annual implementation reports to the IOTC. The measures in place, including both IOTC regional Resolutions as well as Sri Lankan National Regulations, are expected to ensure the UoA does not hinder the recovery of ETP species. SG60 is met. Measures in place are not expected to be highly likely to ensure the UoA does not hinder the recovery of ETP species. SG80 is not met. A "comprehensive strategy" is defined as a complete and tested strategy made up of linked monitoring, analyses, and management measures and responses. SG100 is not met. NPOA for sharks and sea turtles bolstered by specific regulations can be considered likely to work based on plausible argument (i.e., they have been

					developed specifically to draw attention to and resolve the issue). SG60 is met. The LOP is still expanding and there are incidences of non-adhering to management measure, so SG80 not met. There is no evidence of vessels in the UoA landing or retaining oceanic whitetip sharks, thresher sharks, sea turtles or common bottlenose dolphins. SG80 is met for these species. There is no evidence that the UoA fleet has adopted best-practice release procedures. It is clear that Resolution 19/03 on the Conservation of Mobulid Rays is not being adhered to by the fleet as spinetail mobula and smoothtail mobula are retained by the fishery. SG80 is not met for these species. Silky shark (although not officially protected by either the IOTC of Sri Lankan national legislation) is recognised by other MSC UoAs that are certified in the Indian Ocean as an ETP species. The UoA clearly considers silky shark as valuable bycatch species and retains all large sharks while discarding (dead or alive) small sharks. Until all are released or discarded SG80 is not met. The LOP can be considered as an alternate measure to reduce ETP species interactions. The associated training, education and communication programs associated with deployment of these trained personnel also greatly contribute to minimising mortality of ETP species more broadly in the fleet as the program spreads to more vessels and harbours. This meets SG 60, but not SG 80.
		2.3.3	Information	60-79	The LOP uses Local Observers to record each and every ETP species caught and the outcome for each individual (i.e., discarded alive or dead) for a given set. LOs also take pictures of the catch for analysis on land. The outcome (fate) for each fish or other captured species (i.e., retained or discarded dead or alive) is extracted from the Local Observer Trip

					Record Book. The quantitative data from the LOP is useful to estimate the UoA related mortality of ETP species. There is a system to collect data from multi-day fishing boats in Sri Lanka and it is cost-effective , technical and usable. It collects CPUE data (fish per 1000 hooks) for all longline vessels. The information from the LOP informs managers on the number of interactions, the behaviour of the crew and the application of release procedures and provides some indication of the fate of the released individuals. Expansion of the LOP to include more vessels within the UoA and all harbours where the UoA vessels land their catch would support increased scoring.
	Habitats	2.4.1	Outcome	>80	Tuna longline fishery operates in the open waters, therefore interaction with the seabed is almost nil. WWF describe non-demersal longline gear as minimally damaging fishing gear with no or negligible interaction with the seafloor (WWF (2015). Ecological sustainability evaluation of seafood: Guidelines for Wild Catch Fisheries, Version 2.0.) The small boat artisanal single day sector lines are set at depths of 50-80 m, between 15 and 25 km from the coastline - in the inshore coastal north-eastern and north-western fishing grounds, (Dissanayake, D. C. T., Samaraweera, E. K. V., & Amarasiri, C. 2010). VMEs are not present in the high seas and the only interaction of the fishery with reefs and such VMEs is through lost gear. This is expected to be minimal. Therefore, SG 60 & 80 are met. As there is no evidence of the interaction of the fishery with VMEs SG 100 is not met.
		2.4.2	Management strategy	>80	The fishery has no interaction with the benthic habitat, so it is not necessary to have a management measures or strategies to ensure protection of habitat. This meets SG 60 & 80, but as there is no

					strategy in place to ensure that lost gear is not harming the habitat, SG 100 is not met. At the same time the fishery is continuously monitored with VMS and camera onboard, and this can be considered as a partial strategy. This gives objective basis of confidence that the fishery is not harming the habitat. Vessel tracking provides some quantitative evidence; therefore, SG 80 is met, but not SG 100.
		2.4.3	Information	>80	Extensive studies on reef habitats and turtle nesting beaches are done in Sri Lankan coasts. Therefore, the nature, distribution and vulnerability of the main habitats in the UoA area are known. VMS provides information on location of fishing and local observers onboard too collects information. This meets SG 60 & 80. SG 100 is not met as the distribution of all habitats, physical impact of gear on all habitats and changes in habitat distribution over time has not been studied.
	Ecosystem	2.5.1	Outcome	>80	The quantities of target and bycatch species caught by the UoA make up a very small proportion of total catches in the Indian Ocean and the UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to a point where there would be a serious or irreversible harm. SG 60 & 80 is met. SG 100 is not met.
		2.5.2	Management strategy	>80	Sri Lanka's National Development Policies incorporates conservation and protection of coastal and offshore environments. An ecosystem approach is lacking in the management plans and legislation. Sri Lanka complies with IOTCs policies and management measures. The FIP has considerably improved reporting and monitoring procedures of the fishery. SG 60 & 80 are met. SG 100 is not met.
		2.5.3	Information	>80	Information is adequate to broadly understand the key elements of the Sri Lankan ecosystem. Main impacts of the UoA on key ecosystem elements can

					be inferred from existing information, but have not been investigated in detail. With the FIP, VMS and local observer programme monitoring and observation has improved considerably. Thus, adequate information on the impacts of UoA on ecosystem can be inferred. Adequate data is collected to detect any increase in risk level. This meets SG 80 but not SG 100.
3	Governance and Policy	3.1.1	Legal and customary framework	>80	IOTC is laying down the long-term objectives consistent with MSC Principles and the CPCs are complying with it. Sri Lanka, being a part of it, has a compliance level of 86% with IOTC (*Ms. Kalyani Hewapathirana, Pers. comm*). Sri Lanka has an effective national legal system which is organised and has effective cooperation with other parties, to deliver management outcomes consistent with MSC Principles 1 and 2. The national Fisheries regulations were strengthened with Amendment after 2013. The management system has a transparent mechanism to settle legal disputes acceptable to all parties. The management system observes the rights of traditional fishermen in a manner consistent with the objectives of MSC Principles 1 and 2. This meets SG 60 & 80, but not 100.
		3.1.2	Consultation, roles and responsibilities	>80	IOTC The functions, roles and responsibilities of member countries of the IOTC have been identified in various Articles of the Conventions. The roles and responsibilities of the Commission and Committees have also been well defined by both RFMOs. At the 2012 Commission meeting (16th Session), Contracting Parties (Members) agreed that meetings of the IOTC and its subsidiary bodies should be open to participation by observers from all those who have attended the current and/or previous sessions of the Commission. The IOTC also have formal cooperative

					relationships with other organizations such as ACAP and CCBST. Sri Lanka Organisations and individuals involved in the management process have been identified. National management of fisheries falls to the mandate of The Ministry of Fisheries and Aquatic Resources Development (MFARD) and the main implementing body of the Ministry, the Department of Fisheries and Aquatic Resources (DFAR). Functions and roles are explicitly defined and understood. There is a regular consultation process and it is clear that local knowledge is taken into consideration. The involvement of affected parties is ensured to an extent. This meets SG 60 & 80. During the remote site visit, with fishermen representative, it was understood that they would like to have more opportunities to express their opinions. Thus, SG 100 is not met.
		3.1.3	Long term objectives	>80	IOTC- The IOTC have clear long-term objectives that are used to help guide the decision-making process. To promote cooperation among the Contracting Parties (Members) and Cooperating Non-Contracting Parties of the IOTC with a view to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the organisation's establishing Agreement and encouraging sustainable development of fisheries based on such stocks. The various resolutions and recommendations adopted clearly lay out their objectives. Various Articles of the Commission require the effective long-term management of tuna and tuna like species. Sri Lanka- Sri Lanka has considerably improved in aligning its national objectives with IOTC. This meets SG 60 & 80.

					It is not clear that explicit objectives are present, therefore, SG 100 is not met.
	Fishery specific management system	3.2.1	Fishery specific objectives	>80	IOTC The Commission has four key functions and responsibilities which enable it to achieve its objectives. They are drawn from the United Nations Convention on the Law of the Sea (UNCLOS), and are: • To keep under review the conditions and trends of the stocks and to gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks; • To encourage, recommend, and coordinate research and development activities in respect of the stocks and fisheries covered by the IOTC, and such other activities as the Commission may decide appropriate, such as transfer of technology, training and enhancement, having due regard to the need to ensure the equitable participation of Members of the Commission in the fisheries and the special interests and needs of Members in the region that are developing countries; • To adopt – on the basis of scientific evidence – Conservation and Management Measures (CMM) to ensure the conservation of the stocks covered by the Agreement and to promote the objective of their optimum utilisation throughout the Area; • To keep under review the economic and social aspects of the fisheries based on the stocks covered by the Agreement bearing in mind, in particular, the interests of developing coastal States. At regional level fisheries objectives are not well defined in general. Some reference points associated to interim values have been adopted for several IOTC stocks through the IOTC Resolution 13/10 and Recommendation 12/14. Despite this lack of defined

					management objectives, a set of interim objectives exist, which could be derived from the IOTC convention text, other international agreements to which IOTC is bound (e.g., UNCLOS), and recent IOTC resolutions and recommendations. These are consistent with achieving the outcomes of MSC Principle 1 and 2. Bmsy/Fmsy objectives are well defined and some IOTC Resolutions make specific reference to the precautionary approach and to long-term sustainable utilization of tuna stocks. However, they cannot be considered well defined and measurable. Sri Lanka- The Government's strategy for management is to ensure the fishery resources are conserved along with maximizing economic benefit from the resources. Therefore SG 80 is met. As the long and short-term management plans are not consistently achieving their objectives, SG 100 is not met.
		3.2.2	Decision making processes	>80	IOTC- The IOTC have defined a clear decision-making process. The decision-making process within the IOTC is by consensus. If consensus cannot be made, a vote can be made. The decision-making process for resolutions and recommendations are open for both commissions. Both commissions require the use of the precautionary approach when applying the decision-making process. Sri Lanka- Sri Lanka has improved its fishery regulations and MCS post ban from EU. Decision making responds to serious and other issues identified. It is not clear whether Sri Lanka is using a precautionary approach in management, but its compliance with IOTC is around 86% (the compliance has recently come down from 90% to 86% due to overfishing).

					Information regarding management and decisions are available on the website of the Department of Fisheries & Aquatic resources. The fishery is complying with judicial decisions regarding disputes. (Fishermen representative pers. Commn.) This meets SG 80 but not 100.
		3.2.3	Compliance and enforcement	>80	IOTC – Compliance at the Commission level is addressed through various monitoring, control and surveillance (MCS) means. There is a required list of illegal, unreported and unregulated (IUU) fishing vessels, VMS systems are required, data is collected through observer and logbooks and there are some port state controls. The Commission has penalties to deal with non-compliance, but these are not always used. Further to this the IOTC has a Compliance Committee, an advisory body of the Commission, which was set up in 2003 and its main activities are: • Review all aspects of CPCs individual compliance with IOTC Conservation and Management Measures; • Review information relevant to compliance from IOTC subsidiary bodies and from Reports of Implementation submitted by CPCs, • To identify and discuss problems related to the effective implementation of, and compliance with, IOTC Conservation and Management Measures, and to make recommendations to the Commission on how to address these problems. Report of implementation are released annually by country and it describes the actions they have taken, under national legislation, in the previous year to implement conservation and management measures adopted by the Commission, including the imposition of adequate penalties for violations (IOTC Secretariat, 2017). Sri Lanka-

					At National level, there is an MCS structure and national observers deployed in high seas in boats bigger than 24 m to ensure their compliance with national laws. With the local observer programme and VMS, the MCS system is now more effective. Any vessel found to cross the EEZ of another country will be identified with VMS location and skipper and vessel owner will be punished. Skipper's license will be cancelled for a minimum of 6 months and can be fined up to 10-15 lakh rupees. The sanctions are enough deterrent for the fishers to comply with the regulations and systematic non-compliance is minimal. (*Ms. Kalyani pers. Commn*.) this meets SG 80. Once the local observer programme spreads to other boats too, the score will improve considerably.
		3.2.4	Management performance evaluation	60-79	IOTC- The IOTC and its subsidiary bodies annually review progress made in implementing each of the recommendations arising from the Performance Review, and the latest updates are included as an appendix to each report of the Commission. Sri lanka- Sri Lanka has implemented the first part of its local observer programme successfully and this has helped in evaluating the management performance. The system has occasional internal review, but it is not clear that it is regularly reviewed. Thus SG 60 is met, but not SG 80 & 100.

Acronyms

CPUE Catch Per Unit of Effort
DFAR Department of Fisheries and Aquatic Resources
EEZ Exclusive Economic Zone
ETP Endangered, Threatened and Protected species
EU European Union
FIP Fishery Improvement Project
HCR Harvest Control Rules
LOP Local Observer Programme
IOTC Indian Ocean Tuna Commission
IUU Illegal, Unreported and Unregulated fishing
MCS Monitoring, Control and Surveillance
MFAR Ministry of Fisheries and Aquatic Resources Development
MSC Marine Stewardship Council
MSY Maximum Sustainable Yield
NPOA National Plans of Action
PI Performance Indicator
PRI Point of Recruitment Impairment
SEASL Seafood Exporters‟ Association of Sri Lanka
SG Scoring Guidepost
SB Spawning stock Biomass
UoA Unit of Assessment
VMS Vessel Monitoring System
WWF World Wide Fund for Nature

Workplan results

Result	Related Action on FisheryProgress	Related MSC Performance Indicator	Explanation
Around 86% compliance with IOTC in reporting	Contracting Party Country compliance with IOTC's Agreement – Stock Status	1.2.4, 1.2.2, 1.2.1, 1.2.3, 1.1.2, 1.1.1	The MFARD & RA send representatives to Working parties related to target species and Principle 1 as well as to the annual meeting of the Scientific Committee (SC), which provides advice to the Commission on the status of stocks and the management actions necessary to ensure sustainability of the fishery. The FIP and the Government organization is actively involved in IOTC Working Parties and Technical Committees. Sri Lanka supported Resolution 21/01 at the 25th Session of the IOTC in June. Sri Lanka failed to comply with catch reductions under 19/01, leading to cumulative over-catch for 2017/18/19, which is being reduced from the catch in 2020. Further deductions are expected in 2021. This has led to the Country's compliance with IOTC to drop from 90% to 86%.
Technical training & capacity building for scientists & fishery managers on IOTC stock assessment methods, harvest strategy evaluation & stock assessment of FIP target species using nonconventional stock assessment methods - completed	Technical training and capacity building – stock assessment and harvest strategy	1.2.4, 1.1.2, 1.1.1	The objective of the action point was to ensure that Sri Lanka's representatives to IOTC working groups and regional meetings are able to confidently and effectively contribute to driving positive changes and or improvements to IOTC stock assessment methodologies. The capacity building workshop was successfully conducted by Dr Toshihide Kitakado, Professor, Department of Marine Biosciences, Tokyo University of Marine Science and Technology between the 13th and 15th of March 2019. Dr Toshihide Kitakado is the Chairperson of the IOTC Working Party on Methods. The technical training and capacity building programme covered the following areas and included a lot of hands-on data manipulation. A preliminary analysis of the data collected for yellowfin and bigeye tuna and swordfish was also initiated. This action seems to be completed successfully.
Increased compliance with IOTC regarding	Contracting Party Country compliance	2.3.3, 2.3.2, 2.3.1, 2.5.3,	The Government of Sri Lanka through the MFARD&RA has undertaken to comply with and fulfil the following IOTC

ecological impact of UoA fisheries	with IOTC's Agreement – Ecological impact of LKA YFT, BET AND SWO fisheries	2.5.2, 2.5.1, 2.4.3, 2.4.2, 2.4.1, 2.1.3, 2.1.2, 2.1.1, 2.2.3, 2.2.2, 2.2.1	regulations pertaining to performance indicators associated with *MSC Principle 2 – ecological impact of longline yellowfin and big-eye tuna and swordfish fisheries*. There is improvement in monitoring and control systems which helps in reducing the ecological impact. Prior to the FIP there were no records of ETP species or ecological impacts of fishery. The awareness programmes and trainings along with sanctions and fines have helped the fishermen to comply with regulations. The fishermen are trained to release the ETP species alive and this is monitored. The fishery has improved in ETP management. Sri Lanka has sponsored a proposal on harvesting immature fish at the 4th Special Session of the IOTC in March and co-sponsored a proposal on reducing FADs at the 25th Session of the IOTC in June.
National Plan of action for Sharks revised and updated and actions identified.	NPA - Sharks	2.3.2, 2.2.2	This action is completed over the three years. Sri Lanka is a party to the United Nations Convention on the Law of the Sea (UNCLOS), United Nations Fish Stocks Agreement (UNFSA), Convention on the International Trade in the Endangered Species of Fauna and Flora (CITES) and several other international treaties that concern the conservation and management of living resources and biodiversity, and a member of the Indian Ocean Tuna Commission (IOTC). Sri Lanka has developed several national instruments such as policy guidelines, laws and regulations, and plans of action to guide the process of implementation of the commitments made under the above treaties. The Sri Lanka National Plan of Action for the Conservation and Management of Sharks (SL-NPOA –Sharks) was published in 2013. The DFAR reviewed and finalized the new SLNPOA Sharks (2018 – 2022) in January, 2018. A series of consultation workshop were conducted by the DFAR with the officers and staff of five District Fisheries Offices and Shark fishermen at the coastal states of Sri Lanka. The Final Report was submitted to the DFAR on 11th December 2018.
The FIP has completed 3 phases	Local (Crew-based) Observer Programme	2.3.3, 2.3.2, 2.3.1, 2.4.3, 2.4.2, 2.4.1, 2.1.3, 2.1.2,	The programme was introduced mainly to collect information on the ETP species. Prior to this there was no reliable data on ETP species from Sri Lankan fishery. This was planned as an alternative to National observers onboard which is a requirement

of Local observer programme successfully and is moving to the fourth pahse.		2.1.1, 2.2.3, 2.2.2, 2.2.1	fo compliance with IOTC. The programme seems to have revolutionized the data collection method with both the government and fishermen excited about the programme. Presently the programme has been implemented successfully for three years, as three phases. The programme presently covers all < 24 m vessels. Data collection is based on digital photography, electronic logbook and crew as observers.
The fishery has more than 80% compliance with IOTC	Contracting Party Country compliance with IOTC's Agreement – Management of Longline fisheries	3.2.3, 3.1.2, 3.2.2, 3.2.1, 3.1.3, 3.1.1, 3.2.4	The Government of Sri Lanka through the MFARD has undertaken to comply with and fulfil the IOTC regulations pertaining to performance indicators associated with MSC Principle 3 – management of the longline yellowfin and big-eye tuna and swordfish fisheries. As part of this DFAR's Legal officer participated in a residential training programme conducted by FAO in Rome, Italy. Later DFAR's representatives attended IOTCs workshop related to MCS and catch documentation scheme. The DFAR is continuing to implement acts and regulations pertaining to the management of the longline fisheries, during the reporting period. Recently Sri Lanka's compliance with IOTC has gone down from 90% to 86 % due to cumulative over-catch for 2017/18/19. Measures are under way to bring the catches to the prescribed level according to IOTC interim resolution 20/01.

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Change in score- 2018 to 2021

Component	PI	Performance Indicator	2018 score	2021 score
PRINCIPLE 1 – UoA 1 YFT				
Outcome	1.1.1	Stock status		
	1.1.2	Stock rebuilding		
Management	1.2.1	Harvest Strategy		
	1.2.2	Harvest control rules and tools		
	1.2.3	Information and monitoring		
	1.2.4	Assessment of stock status		
PRINCIPLE 1 – UoA 2 BET				
Outcome	1.1.1	Stock status		
	1.1.2	Stock rebuilding		
Management	1.2.1	Harvest Strategy		
	1.2.2	Harvest control rules and tools		
	1.2.3	Information and monitoring		
	1.2.4	Assessment of stock status		
PRINCIPLE 1 – UoA 3 SWO				
Outcome	1.1.1	Stock status		
	1.1.2	Stock rebuilding		

Management	1.2.1	Harvest Strategy		
	1.2.2	Harvest control rules and tools		
	1.2.3	Information and monitoring		
	1.2.4	Assessment of stock status		
PRINCIPLE 2				
Primary Species UoA 1	2.1.1	Outcome		
	2.1.2	Management		
	2.1.3	Information		
Primary Species UoA 2	2.1.1	Outcome		
	2.1.2	Management		
	2.1.3	Information		
Primary Species UoA 3	2.1.1	Outcome		
	2.1.2	Management		
	2.1.3	Information		
Secondary species	2.2.1	Outcome		
	2.2.2	Management		
	2.2.3	Information		
ETP species	2.3.1	Outcome		
	2.3.2	Management		
	2.3.3	Information		
Habitats	2.4.1	Outcome		
	2.4.2	Management		

	2.4.3	Information		
Ecosystem	2.5.1	Outcome		
	2.5.2	Management		
	2.5.3	Information		
Principle 2 conclusion				
PRINCIPLE 3				
Governance & policy	3.1.1	Legal and customary framework		
	3.1.2	Consultation, roles and responsibilities		
	3.1.3	Long term objectives		
Fishery specific management system	3.2.1	Fishery specific objectives		
	3.2.2	Decision making processes		
	3.2.3	Compliance and enforcement		
	3.2.4	Management performance evaluation		