



Skipjack Tuna Purse Seine Fishery

FAD Management Plan October, 2019

1. INTRODUCTION

This document presents our FAD management plan.

The purse seine tuna fishery in the Indian Ocean is based on FADs and free schools (i.e. in the ocean and not associated with a FAD). A FAD set is when a fishing vessels sets its purse seine within 1 nm of a FAD that has been activated by that vessel.

FADs are manufactured structures equipped with satellite-tracked buoys that may be tracked by tuna purse seiners as they float in the ocean. Vessels are able to identify the biomasses of tuna concentrated below a FAD and thus where sets may be made.

There are a number of concerns about the use of FADs, including the catch mix and harvest of juvenile yellowfin, their potential interaction with ETP species, the risk that lost FADs pose to vulnerable marine ecosystems and the possible impact on the ecosystem (ecological trap).

We recognize these issues and in seeking to reduce our footprint on the Indian Ocean ecosystem we have sought to reduce the risk by:

- Taking the lead in restricting the number of buoys below the IOTC defined maximum;
- At an early stage committing to only use non-entangling FADs;
- Actively worked to test and deploy bio-degradable FADs;
- Cooperated with stakeholders to recover derelict FADs; and
- Working in full compliance with all IOTC regulations.

Starting from Res 12/04,¹ IOTC has established rules on the use of FADs.

Resolution 19/02 is the latest list of regulations. It comprises procedures on FADs management plans, including:

- A limitation on the number of buoys per licensed purse seiner;
- More detailed specifications of catch reporting on FAD sets;
- The need for improved FAD design to reduce the risk of entanglement of non-target species; and
- Using biodegradable materials the construction of FADs.

From 2020:

- The maximum number of buoys per purse seiner that may be deployed at any one time has been reduced to 300; and
- The maximum number of buoys that may be acquired per vessel in a single year is 500.

From 2022:

- All FADs must be constructed of bio-degradable material.

In 2018, the our skipjack fishery using FADs and free school sets was certified against the MSC standard for sustainable fishing.

The MSC certification identified a number of FAD related issues.

- While the operation of purse seines in the water column has limited to no interaction with the oceanic benthos, there is a risk that lost FADs become derelict on-shore and damage habitat, including corals that are categorised under the MSC standard as vulnerable.
- Due to concern about the potential for purse seine tuna fisheries to negatively impact the structure and function of the ecosystem, there are ongoing investigations on the effects of FADs on tuna behaviour, migration patterns and feeding.
- There is not a clear idea of how many FADs are lost each year and how many are subsequently recovered.

We are committed to maintaining MSC certification and we will respond fully to the defined conditions to certification.

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<https://www.google.com/search?q=Res+12%2F04%2C+IOTC&og=Res+12%2F04%2C+IOTC&aqs=chrome..69i57.3695181j0j7&sourceid=chrome&ie=UTF-8>

In addition, we work in full cooperation with the Sustainable Indian Ocean Tuna Initiative (SIOTI) ² in the implementation of its Fishery Improvement Project (FIP).³ The FIP covers a number of FAD related issues.

- In late 2018, SIOTI commissioned consultants to draft a silky shark management plan. In the coming year, the FIP anticipates that specific management measures will be adopted to address the bycatch of silky shark.
- In April 2019, SIOTI commissioned a consultant to produce a working paper on EBFM for submission to the IOTC Working Party on Ecosystems and Bycatch (WPEB). Among other things, the consultant's terms of reference (TOR) required a review of the key risk areas associated with the ecological impact of FAD use.
- In 2019, SIOTI commissioned a study of FADs and provided recommendations for improving FAD monitoring, reporting and management in the Indian Ocean purse-seine tuna fishery.
- The FAD Watch programme that locates and intercepts FADs that may become derelict in Seychelles waters was expanded to cover 42 vessels and 5 islands.
- By the end of the third year of the FIP (2020) it is anticipated that:
 - All FADs operated by FIP participants are tracked;
 - Losses are registered; and
 - Best practical efforts are made for their location and recovery.
- By end year 4; that:
 - A review of the FAD reporting system indicates that the loss of FADs is minimised;
 - Lost FADs are highly unlikely to impact on VMEs; and
 - The results of a FAD management study are published.

We continue to stress our belief that producer members of SIOTI go beyond MSC and be proactive in taking initiatives to protect the ecosystem.

- We have established a dedicated department to identify and implement measures. This work is supported by a working group comprising technical experts and the AZTI research institute.
- The working group prepared a Strategy and Operational Plan that describes our approach.⁴
- This covers:
 - Our response to the MSC conditions;
 - Our cooperative work as part of the SIOTI FIP; and
 - The initiatives we propose that go beyond the requirements of MSC.

2. ECHEBASTAR: FAD MANAGEMENT PLAN⁵

2.1 Objective

Our FAD Management Plan has been developed to:

- Meet IOTC regulations;
- Adopt ISSF best practices;
- Work with other tuna fishing companies and stakeholders to implement the SIOTI FIP; and
- Respond to our commitment to go beyond the requirements of the MSC standard.

The implementation of this Plan strengthens our sustainable management and responsible use of FADs while maintaining our operational efficiency.

² <https://fisheryprogress.org/fip-profile/indian-ocean-tuna-purse-seine-sioti>

³ SIOTI (<https://fisheryprogress.org/fip-profile/indian-ocean-tuna-purse-seine-sioti>) was established by Governments, major tuna processors, producer organizations, fishing companies and the WWF to promote and establish sustainable management of tuna fisheries in the IO. The Fisheries Improvement Project (FIP) prepared by SIOTI responds to the potential certification of a single unit of assessment (UoA) comprising all (42) purse seiners (including those of Echebatar) fishing tuna in the IO.

⁴ Building the Future Together. Echebatar: Strategy & Operational Plan for a Sustainable Purse Seine Tuna Fishery in the Indian Ocean 2019 - 2023 <https://echebatar.com/wp-content/uploads/2019/09/Echebatar-Strategy-Operational-Plan-for-a-Sustainable-Purse-Seine-Tuna-Fishery-in-the-Indian-Ocean-2019-2023.pdf>

⁵ This management plan relates the purchase, activation, deployment and recovery of FADs owned by Echebatar and used in the Indian Ocean tuna fishery. It represents the company policy of Echebatar and does not have legal affect.

2.2 ISSF Best Practices

ISSF continues to work to reduce the potential impact of FADs on the ecosystem. A recently released report (July 2019⁶) identifies the elements that are considered to be most important for effective management of FADs and recommends best practises. As can be seen from the analysis below (table 1), we have gone a long way to applying these practices.

Table 1: Echebatar and ISSF Recommended Best Practices

ISSF Recommended Best Practice	Echebatar
Complying with flag state and RFMO reporting requirements by set type.	
Commit to filling out completely and accurately the logsheets required by the flag state, licensing authority, and/or RFMO for each set on a trip. The data should include catch and bycatch by set type;	We fully comply with log book regulations and s there are data on catch and bycatch for each set. This information is published on the company web site, with up-dates with analysis every six months.
Provide data on FAD activity (deployments, visits, sets and loss) through "FAD logbooks" and data on number of active FADs through the analysis of satellite buoy daily position data provided by satellite buoy provider;	We have contracted AZTI to develop a data base on the buoys we purchase and activate.
Commit to 100% observer coverage.	Since 2014, there has been 100 % human observer coverage of all our fishing trips.
Voluntarily reporting additional FAD buoy data for use by RFMO science bodies;	
Participate in scientific programs that require the recovery of historical data and use of FAD position data and acoustic records from the echo-sounder buoys (with a time lag, as needed for time sensitive confidentiality) either at the RFMO level or with specialized research institutions.	We work closely with AZTI to collect and analyze data that are useful to scientific programs. Data on biomasses under FADs are provided with a 6-month lag to maintain confidentiality.
Supporting science-based FAD limits	
Commit to not increase the number of FADs per vessel even if the RFMO would allow for an increase.	We fully comply with IOTC buoy limits. Indeed, in 2016 we unilaterally reduced the number of FADs used to below the number permitted by the IOTC.
Commit to other practices that limit the number of FADs.	We fully support the implementation of a recovery strategy for the yellowfin stock that would result in an increase in the number of free school sets and reduce the number of FAD sets.
Support the adoption of meaningful FAD closures that will mitigate impacts of FAD fishing on target tuna stocks.	We do not agree with a seasonal closure of the purse seine tuna fishery in the Indian Ocean, especially when other major fisheries for the species are to a large part unregulated. We support strictly applied quotas for yellowfin tuna that by acting as a choke species restricts the number of FAD sets.
Using non-entangling FADs to reduce ghost fishing;	
Commit to using non-entangling FADs (without any netting) only.	Since 2016, we have exclusively used non-entangling FADs. See https://www.echebatar.com/assets/pesca/NON-ENTANGLING-FADS.pdf
Commit to removing entangling FADs that are found in the water.	The evidence indicates that entangling FADs are rarely encountered in the Indian Ocean. Whatever, we prohibit the placing of our buoys on entangling FADs
Mitigating other environmental impacts due to FAD loss including through the use of biodegradable FADs and FAD recovery policies;	
Test biodegradable FADs, using local materials if possible.	We are working closely with AZTI to develop biodegradable FADs

⁶ ISSF 2019-11: Recommended Best Practices for FAD Management in Tropical Tuna Purse Seine Fisheries. <https://iss-foundation.org/download-monitor-demo/download-info/issf-2019-11-recommended-best-practices-for-fad-management-in-tropical-tuna-purse-seine-fisheries/>

	https://iotc.org/sites/default/files/documents/2019/08/IOTC-2019-WPEB15-34.pdf
Participate in research collaborative projects to test biodegradable FADs;	We fully cooperate with the project SC07 “Testing designs and identify options to mitigate impacts of drifting FADs on the Ecosystem – EASME/EMFF/2017/1.3.2.6 - FWC EASME/EMFF/2016/008 Provision of SAF Beyond EU waters” that seeks to test the use of specific biodegradable materials and designs for the construction of drifting FADs in natural environmental conditions.
Commit to not increase the number of FADs per vessel even if the RFMO would allow for an increase.	We are committed to reducing the number of buoys used by our vessels (see below)
Commit to other practices that limit the number of FADs such as: ⇒ Deploying only FADs with satellite tracking buoys, ⇒ Not activating remotely the buoys of dormant FADs, and ⇒ Allowing buoys to report at least once per day while they are in the water.	We are totally committed to not increasing the number of FADs used by our vessels. We only deploy FADs with satellite tracking buoys.
Test whether simpler, smaller FADs effectively aggregate tunas and use them if so.	We continue to review the best design of FADs. This point is incorporated in the Code of Best Practises.
Participate in research programs to determine deployment areas that are highly likely to result in stranding.	We have contracted AZTI to complete the required research.
Promote good practices to reduce the loss and abandonment of FADs.	We are committed to reducing the loss of FADS and reducing the number that may become derelict on-shore.
Provide FAD track data to identify areas of high incidence of stranding events and positional data on beached FADs to enable targeted recovery;	We work with AZTI to provide FAD track data to identify areas of high incidence of stranding events and positional data on beached FADs to enable targeted recovery.
Participate in cooperative efforts to remove stranded FADs.	We cooperate fully with the FAD-Watch project: (i) the first multi-sectorial initiative developed to prevent and mitigate FAD beaching across islands in the Seychelles; and (ii) applies coastal recovery as a mitigation measure.
Implementing further mitigation efforts for silky sharks.	
Commit to using non-entangling FADs only.	Our use of non-entangling nets has reduced the number of interactions with silky sharks.
Adopt a combination of practices that can reduce mortality and increase shark survival amongst the following: Making fewer FAD sets, Avoiding small sets (e.g. under 10 tons), Releasing sharks from the net, when safe and practical;	On four of our six purse seiners, we have invested in a secondary conveyor belt to quickly return living silky shark to the Ocean in an effort to reduce post release mortality. For commercial reasons, our skippers never set on biomasses of less than 10 mt. Note that some sets will result in a catch of less than 10 mt but this is due to technical reasons.
Practicing live and safe release of sharks (and rays) from the deck.	See above.

2.3 Echebatar FAD Management Measures

Number of FADs and instrumented buoys

- All FADs should be deployed and tracked with instrumented buoys, which should be made operational on-board.
- Until 31 December 2020, Echebatar will respond to IOTC Res 19/02 with a maximum number of 300 operational buoys followed per purse seiner vessel at any one time, with a maximum annual purchase per purse seiner vessel of 500 instrumented buoys.
- From 1st January 2021, Echebatar will voluntarily reduce the number of operational buoys per purse seiner vessel followed at any one time to 275 with a maximum annual purchase per purse seiner vessel of 475 instrumented buoys.
- From 1st January 2022, Echebatar will voluntarily reduce the number of operational buoys followed per purse seiner vessel at any one time to 250 with a maximum annual purchase per purse seiner vessel of 450 instrumented buoys.

Supply Vessels

- We recommend that, from 2022, there be a further reduction in the number of support vessels operating in the purse seine fishery in Indian Ocean.

FAD Construction

- To reduce the risk of damage from lost FADS, in compliance with IOTC Res. 19/02, by 2022, if not earlier, our FADS will be constructed from bio-degradable materials.

Catch Retention

- As required by IOTC regulations, all our catch will be retained.

FAD Traceability

- We are working with AZTI to ensure that by early 2020, all FAD purchases, activation, status and recovery data will be fully documented and available for inspection.

FAD Recovery

- We will continue to work with other tuna catching companies and stakeholders in FAD Watch programme.
- We will identify local stakeholders in other countries who may replicate the experience (see Echebatar Strategy)

2.4 Monitoring

- Our sustainability working group will monitor implementation of this Plan and up-dated information will be posted on the Echebatar web site on a regular basis.

2.5 Review

- This Plan shall be under continual review and may be amended at any time.
- This plan shall be amended in line with future measures adopted by IOTC.