



# FAD-Free Tuna Verification Best Practices

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# PURPOSE

The objective of this document is to identify robust mechanisms for verifying purse seine FAD-free claims while ensuring observer safety. This document does not claim which catch methods are the most sustainable, suggest whether certain methods should be preferentially sourced over others, or drive companies to preferentially source FAD-free tuna. The information presented is a culmination of in-depth background research and interviews with tuna experts, fishing industry, and fisheries observers. This report seeks to summarize the practices in place in current FAD-free verification practices, illuminate gaps, and ultimately provide recommendations and steps that seafood retailers, suppliers, fishing companies, RFMOs, and NGOs can take to advocate for improvements in FAD-free tuna traceability.





# CURRENT LANDSCAPE

## **FADs and why they are used**

A FAD, or fish aggregating device,<sup>\*1</sup> as used in this document, is defined by the WCPFC as “any object or group of objects, of any size, that has or has not been deployed, that is living or nonliving, including but not limited to buoys, floats, netting, webbing, plastics, bamboo, logs and whale sharks floating on or near the surface of the water that fish may associate with.”<sup>2</sup> Fishers have long observed that pelagic fish species generally aggregate under logs, seaweed patches, or other large animals like whale sharks, and are therefore easier to catch. For hundreds to thousands of years, fishers have fished on or around naturally occurring FADs.<sup>3</sup> However, more recently, they also began to construct and deploy FADs made out of human-made materials (e.g. PVC pipe and netting). FAD use today is extensive and focused mainly on large-scale industrial harvesting by purse seine tuna fleets, although it is also used by some handline and pole-and-line fleets as well. Although the definition of FADs varies somewhat among Regional Fisheries Management Organizations (RFMOs\*), this fishing method now comprises upwards of 40 percent of annual global tuna catches.<sup>4</sup>

## **Challenges with FADs & FAD-free claims**

While fishing on FADs is an efficient way to target and harvest tuna, the method can have higher proportions of unintended capture of non-target species and juvenile tuna than some other methods. It can also result in entanglement of non-target species such as sharks and sea turtles, and create the potential for FADs to be lost or abandoned resulting in marine debris and habitat damage when washed ashore or on to coral reefs. Improvements in fisheries management at the RFMO level – including FAD management improvements – are needed to address these challenges and prevent overfishing of both target and bycatch species. Experts have suggested a range of measures such as limits to the number of FADs that can be deployed or limits on the number of FAD sets, seasonal FAD fishery closures, specifications for FAD construction to reduce entanglement, or protocols to ensure FAD recovery. However, efforts to improve FAD management are challenged by misalignment of several key definitions of what constitutes a FAD set, continually evolving gear designs, poor data on the number of FADs deployed, and varying levels of political will among RFMO members.

Some supply-chain companies with sourcing policies and commitments have chosen to source tuna harvested using FAD-free methods. FAD-free harvest can reduce purse seine bycatch of some species and the capture of juvenile tunas, making it attractive to companies seeking to demonstrate progress with their sustainable sourcing commitments. Additionally, some companies looking to meet sourcing commitments have chosen to preferentially source from specific FAD-free fisheries based on their sustainable seafood certifications and ratings.

However, there are no established best practices for verifying claims of FAD-free caught tuna. Purse seine vessels will typically set on both FADs and free schools during the same fishing trip, meaning FAD-free harvest is not distinct from FAD harvest in terms of vessel identity, licensing, fishing area, or season (with the exception of FAD closure periods implemented by IATTC, ICCAT, and WCPFC).<sup>5</sup> Further, RFMOs are not aligned when it comes to defining ‘associated’\* (FAD) vs. ‘un-associated’\* (FAD-free) sets or a ‘free school’. FAD-free claims can therefore be applied to tuna harvested under a range of conditions depending on the source RFMO,<sup>6</sup> leaving companies purchasing FAD-free products uncertain as to how to verify those claims.

## **Existing verification practices**

To provide assurances to their customers, purse seine fishing companies are developing traceability and verification measures which differ in terms of scope and robustness.

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1 Asterisks denote words defined in the Glossary beginning on page 13

2 [WCPFC’s Conservation and Management Measure 2009-02](#)

3 [Pew, Fish Aggregating Devices \(FADs\) and Tuna: Impacts and Management Options](#)

4 [ISSE, FADS Fish Aggregating Devices](#)

5 As of August 2018, fisheries seeking MSC certification will no longer be permitted to use both certified and uncertified catch methods on a single trip. Fisheries currently in assessment or already certified will have three years to transition. Therefore, MSC certified tuna fisheries will not be using FAD and FAD-free catch methods on the same fishing trip, eliminating ‘mixed trips.’

6 For example, the Western and Central Pacific Fisheries Commission (WCPFC)\* defines a FAD as any object, living or nonliving, natural or man-made, deployed or not, as a FAD, while the Indian Ocean Tuna Commission (IOTC)\* specifies that only ‘deployed’ objects fall under its definition, meaning if tuna were harvested next to whale shark, it would be defined as associated in the WCPFC, but unassociated or FAD-free in the IOTC. Similarly, there are differences in how a free school is defined, and whether a fishery can be certified free school if it is one or five nautical miles (nm) from a FAD.



One strategy is the issuance of signed ‘captain’s statements,’ used to record certain data (e.g. fishing date and location) and verify, via the captain’s signature, that no FADs were used in harvesting a set of tuna. While they are easy to create and reference, captain’s statements are not standardized in terms of content or third-party verification, making them one of the least robust options currently used to verify FAD-free claims.

A range of traceability protocols are also being implemented by FAD-free tuna harvesters. Methods for loading, segregating, tracking, and documenting FAD-free tuna vary widely from company to company. Some rely upon camera footage to document the onboard handling of FAD-free tuna, some have methods for tagging or spatially differentiating FAD-free catch, while others use a combination of approaches. However, without independent verification, it can be difficult to determine if these processes or measures are sufficient or consistently implemented to validate if the catch is FAD-free.

Human observers, such as those required by RFMOs or coastal states for scientific data collection, or in some cases, also monitoring compliance, are sometimes asked to verify whether harvest events were associated or unassociated with FADs.<sup>1</sup> On-vessel observers (also referred to as observers) are independent employees of ‘observer program providers’ (e.g. research agencies or private firms). They are the main source of independently collected data, ranging from information on the fishing activities to biological fisheries data that is later used to infer the impacts of fishing activities on the environment. Data on gear use (e.g. FADs) is important for estimating fishing impacts and monitoring compliance. Though FAD-free verification for the purposes of supporting product claims or certification is not the responsibility of tuna fisheries observers, in some instances their reports, logbooks, or other forms are requested for those purposes.<sup>1</sup> However, observer safety issues create challenges when requesting set-type verification by observers for the purposes of making claims in supply chains (see text box below).

Third-party audits are an independent way to verify that purse seiners are implementing traceability and product segregation mechanisms for FAD-free tuna. Auditor tasks include sampling supply chain documents, conducting on-site inspections, completing risk analyses, assessing strengths and weaknesses of supply chain documentation best practices, and monitoring compliance with those best practices. These functions help the auditor monitor whether fishing companies are in compliance with established traceability protocols – which can include an assessment of FAD-free segregation mechanisms.

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<sup>1</sup> Fisheries observers in the ICCAT, IATTC, WCPFC are required to record the use of FADs, and in the IOTC it is recommended. Some observers in the Western Central Pacific region are trained by the Parties to the Nauru Agreement (PNA)\* Office as part of the PNA’s Marine Stewardship Council (MSC) CoC certification to record set-type information in official forms and separately in observer diaries. These data are used for independent verification of the client group members’ vessels by the PNA office and could be used by the independent certification body if needed to verify origin from unassociated sets.

## Observer Safety

Observers have an important role in the sustainable management and long-term viability of fisheries by providing data needed to effectively manage fisheries. The presence of observers may be required on-board tuna purse seine fishing vessels by national government regulations and RFMO conservation and management measures. Those observers are responsible for gathering scientific and, in some cases, compliance data, including recording the use of FADs if required by the RFMO or nation. As a result, observers are seemingly well positioned to verify FAD usage to support supply chain claims.

However, using observers or their reports to verify FAD-free fishing claims made within supply chains adds a pseudo-auditing role to an observer’s duties, which may exacerbate threats to or abuse of observers by harvesters seeking to secure certified and/or FAD-free products. Observers already face occasional safety issues from fishing crew concerned with hiding unauthorized activities that may be exposed by the data that observers gather in their current role for RFMOs. These observer safety issues can include, but are not limited to: harassment, intimidation, physical violence, bribery, interference, or other forms of coercion.<sup>1</sup>

Limiting the role of observers to collecting only scientific data—and not compliance information—reduces risks to observers and improves their ability to freely and accurately collect data to support fisheries management. However, in light of current regulations requiring observers to collect compliance and scientific data, it is imperative that observer safety improvements are a priority for observer programs and employers, and all parties managing or sourcing tuna.

<sup>1</sup> <https://www.hakaimagazine.com/article-long/mysterious-disappearance-keith-davis>



Third-party MSC audits likely comprise the majority of third-party audits conducted on FAD-free tuna harvest. The MSC fisheries certification and seafood labeling program relies on independent third-party audits to verify that the origin of MSC certified products is from the relevant Unit of Certification, which in some cases are unassociated (FAD-free) purse seine sets. The MSC Chain of Custody (CoC\*) Standard requires segregation, identification, and traceability for certified fish, but it is not prescriptive in how this is achieved. For instance, some certified companies currently allow holding of FAD-free tuna in the same wells as FAD-caught tuna if a double net barrier is used, while others require complete segregation in separate wells. However, after a recent change in MSC's unit of assessment requirements, companies will no longer be allowed to use both certified (e.g. FAD-free) and uncertified (e.g. FAD) catch methods on the same fishing trip.<sup>1</sup> Ultimately, the certifier is still responsible for independent verification of compliance with the Standard, and in all cases, the principles of the CoC Standard must be met.

### ***Why aren't existing tuna fishing practices enough?***

There is a need for precautionary management strategies within tuna fisheries, as a whole, to help control pressure on global tuna stocks and reduce fishing bycatch. Since these robust harvest strategies require significant research, they may take several years to develop. To be effective, it is critical that retailers and their supply chains as well as fishing companies participate in RFMO advocacy pushing for more timely development and implementation of strengthened tuna harvesting strategies. Additionally, lack of supply chain transparency can pose risks to fishing companies and retailers alike, so there remains a need to improve transparency around traceability in tuna fisheries.

### ***Why aren't existing FAD-free verification practices enough?***

Claims are more credible when they are verified by a third party, when paperwork documents the entire chain of custody, and when multiple sources of data or evidence are used to support the claim. Many of the methods currently used to verify claims of FAD-free tuna are limited by the potential for bias and misreporting (e.g. industry self-reporting). Additionally, there is inconsistent implementation across both the sector (e.g. RFMOs, flag states, coastal states, and companies implement different protocols) and within companies (e.g. a company's fleet may be outfitted differently from vessel to vessel, or subcontracted vessels may not be monitored as closely as owned vessels). There is also widespread concern for the safety of on-vessel human observers if they are required to assist in verification. Human rights abuses have no place in seafood supply chains, thus it is imperative that observer and crew safety remain at the forefront of not just FAD management plans, but within all aspects of tuna fisheries. At present, as both FAD use and demand for FAD-free tuna product continue to grow, the need for robust fisheries management and credible and effective methods to verify claims of FAD-free tuna has increased.

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<sup>1</sup> Fisheries entering MSC assessment after February 2019 will need to comply with the new unit of assessment rules, while fisheries already under assessment or currently certified will have until 2021 to make the transition.





# Best Practices and Recommendations for Verifying FAD-Free Tuna Claims

The recommendations presented below are a result of in-depth research and discussion of robust methods that should be implemented for the credible and effective verification of FAD-free tuna product claims in supply chains. The recommendations will need to be revisited over time as changing harvest methods, fisheries management measures, and emerging technologies shift best practice definitions. Each recommendation is followed by a justification for why that recommendation was made and how it addresses existing challenges to verification. Where noted, additional information relevant to the recommendations is located in the appendices.





# Steps to Responsible Verification of FAD-Free Tuna

*We recommend all companies making FAD-free harvest claims on products adopt the following best practice recommendations*

## 1 USE ELECTRONIC MONITORING SYSTEMS

Outfit vessels with electronic monitoring systems, and review footage to verify FAD-free harvest and proper handling. Electronic monitoring systems should include cameras installed to give a 360° view of at a least one nautical mile distance from the vessel as well as cameras placed on the wet deck capturing on-vessel activities (i.e. brailing, sorting, filling of wells).



## 2 IMPLEMENT TRACEABILITY PROTOCOLS

Comprehensive and auditable traceability practices that specify a standardized operating procedure for segregating FAD-free product, collecting key data elements (KDEs), and storing and sharing information, should be in place on harvest vessels and throughout supply chains.

## 3 CONDUCT THIRD-PARTY AUDITS

Independent, third-party audits should be conducted to ensure that all parties are complying with standardized traceability protocols on harvest vessels and throughout supply chains.



## 4 MAKE FAD-FREE VERIFICATION METHODS PUBLIC

Companies should make public their FAD-free verification practices and protocols either upon request or on a public-facing platform.



## 5 OBSERVERS SHOULD NOT BE USED TO VERIFY FAD-FREE TUNA CLAIMS FOR SUPPLY CHAINS

To protect the safety of human observers at sea, alternative independent means of FAD-free tuna verification, such as electronic monitoring, should be utilized.





We recommend all companies making FAD-free harvest claims on products adopt the following best practice recommendations:

## **Recommendation 1. Outfit vessels with electronic monitoring\* systems and review footage to verify FAD-free harvest and proper handling**

### Justification

- When pointed towards the wet deck, cameras help verify catch method based on catch composition (e.g. by-catch species) and can document the brailing, sorting, loading and unloading of catch into and out of wells, and monitor key data regarding the transshipment of catch.<sup>1</sup>
- When three or more cameras are pointed to sea they can help verify whether a FAD was visible at the surface, record the gear set pattern, and document events that would disqualify catch from FAD-free claims (e.g. a whale shark encircled in the net).
- Time stamps and other information from camera footage can provide an independent 'layer' of information to assist in determining FAD-free eligibility when compared to vessel computer logs, captain's logbooks, AIS\*/VMS\* data, and vessel tracks (including speed, heading, and hydraulic pressure).<sup>2</sup>
- Companies further down the supply chain can be granted access to the electronic monitoring data directly, with no need to request access from the relevant authority.<sup>3</sup>
- Even highly trained observers can face challenges in differentiating a FAD vs. FAD-free set at sea or monitoring all fishing activities in real time.<sup>4</sup> Recordings make it possible to review events repeatedly, if needed, and may reduce the number of FAD sets misidentified as FAD-free.
- Electronic monitoring systems are not affected by the safety issues that sometimes affect human observers (e.g. harassment, threats, violence, and intimidation), and can be designed to limit vulnerability to tampering.
- Electronic monitoring may capture evidence of abuse of observers by crew which can potentially be used as evidence of observer interference.\*
- As an ancillary benefit, boat owners find that video monitoring can also help monitor the safety of crew and fisheries observers, and its presence may also serve to deter labor and safety violations.

When preparing to use electronic monitoring for verification purposes, some of the questions companies should consider include, but are not limited to:

- How best to store the large volumes of data collected?
- Who has access to the data?
- Who is responsible for reviewing the data?
- What fishing activities in particular should be reviewed?
- How best to handle crew privacy concerns?

### Concerns

- There is disagreement about the distance that a camera can record a FAD, since most of the object is submerged under water.
  - Cameras can pair with other technologies (e.g. beacons) to provide added assurance about the position of some FADs; but in their absence, cameras are limited by visibility conditions.
- If verification is required, there will be increased costs, regardless of the method or system used. Land-based, independent companies, supplying the monitoring technology, are usually also employed to interpret and analyze footage to verify FAD-free claims, adding to the operational costs of these tools. As technologies and equipment are developed and refined, costs may decrease over time.
- There are no standard practices governing how, or how often, electronic monitoring data are delivered for review.

1 [ICCAT, Minimum standards for the implementation of electronic monitoring systems for the tropical tuna purse seine fleet, 2016](#)

2 [ICCAT, Minimum standards for the implementation of electronic monitoring systems for the tropical tuna purse seine fleet, 2016](#)

3 This might not be possible in all places due to data protection legislation preventing open data sharing, especially where there are areas of commercial confidentiality.

4 The duties, training, and scope of most fisheries observers and observer programs do not typically include verification for labeling purposes or making claims in supply chains. Typically, there is only one observer per fishing vessel so they can only monitor one section of a ship at a time, and are not always available when fishing occurs (e.g. rest hours, eating meals, sick time, maximum working hours reached). As an alternative, electronic monitoring can be installed to simultaneously monitor as many areas of the ship and surrounding water as is desired, 24 hours a day. Since observers trying to visually identify FADs are limited by their ability to see partially-submerged objects in a range of weather conditions and distances, cameras directed at sea and at the vessel deck can provide a better vantage point than is available to human observers.

- o At present, electronic monitoring data are commonly uploaded when the fishing vessel is within cell phone range of land, or it is stored on a hard drive and submitted after each trip, to companies that provide land-based observation services. It is important that standards be established so that data are reviewed before products with FAD-free claims enter the market.
- Concerns about privacy and invasion of personal liberty have been raised by some vessel crew.

#### Future Best Practice

- Additional technologies should be used in combination with electronic monitoring (e.g. VMS/AIS data, FAD/buoy beacons, and gear sensors). These tools provide additional layers of electronic data that can corroborate FAD-free claims.

## **Recommendation 2: Implement robust and auditable traceability protocols**

Protocols should clearly define FAD and FAD-free, include robust procedures to avoid mixing, and provide for traceability of FAD and FAD-free tuna throughout the supply chain. Below are minimum criteria of a comprehensive FAD-free traceability protocol, but this should not be considered a comprehensive list (see Appendix I for additional criteria).

### **Key data elements\* (KDEs)**

Tuna traceability systems should be able to capture, link, and share important data about the 'who, what, where, when, and how' of fishing trips, including vessel information and set types. KDEs should include, at a minimum, the below information:<sup>1</sup>

- Species name
  - o Latin scientific name
- Country of origin label (COOL)
- Fishing method
  - o Gear type
  - o Set type
- Volume of catch (by set, when offloaded)
- Catch location
  - o RFMO Convention Area
  - o Stock
  - o Country or region of stock (as specific as possible)
- Fishery Improvement Project (FIP)
  - o Name of FIP and link to public work plan
- Certification
  - o Name of certification and Chain of Custody Code of supplier
- Fishing vessel
  - o Vessel name
  - o Flag of vessel(s)
  - o International Maritime Organization (IMO) number or other Unique Vessel Identifier (UVI)
  - o Registered owner name
- Transshipment
  - o Did transshipment occur?
  - o If transshipped at port, port name
  - o If transshipped at sea, RFMO name and indication of where (coastal, Exclusive Economic Zone [EEZ], or high seas waters)<sup>2</sup>
  - o Date of transshipment
  - o Was transshipment monitored by government and third-party observer?
- Transshipment vessel
  - o Vessel(s) name
  - o Flag of transshipment vessel(s)
  - o Unique Vessel Identifier (e.g. radio call sign or IMO number)
- Fishing trip
  - o Start and end date of fishing trip
  - o Date of first landing

<sup>1</sup> The KDEs listed in this document are in alignment with the Tuna Traceability Recommendations shared and previously discussed within the NGO Tuna Forum.

<sup>2</sup> All RFMOs prohibit the transshipments at sea for purse seine vessels, with some exceptions for archipelagic waters within the WCPFC.



## **Data systems**

Tuna harvesting information should be stored and shared via fully electronic traceability systems with the below features:

- IT systems capable of managing data using standardized protocols for storing, backing up, communicating, and granting authorized access to information, so that critical product traceability information can be quickly shared at all levels throughout the supply chain, from harvest vessel to retailer.
- Systems should be electronic, minimizing human error, and reducing the ability to tamper or fraudulently record or change data when compared with paper-based systems.
- Electronic traceability systems should allow for live data capture of electronic monitoring footage, near-real time-data capture of vessel location tracking data, and daily capture of e-logbooks.<sup>1</sup>
- Transmission of data for verification and auditing purposes should occur when within range of receivers, and-should not be delayed until product is landed.
- Data systems should access and cross-reference against authoritative data sources (e.g. government vessel registries) when possible.
- Captain's logbooks should be kept in a format accessible by the vessel owning company and third-party auditors for cross-referencing with tuna harvest information.
- If gear sensors are used on harvest vessels, data should be electronically captured, stored, and be available for comparison alongside traceability data.
- Traceability protocols should be comprehensive and credible and align with the recommendations in the Expert Panel on Legal and Traceable Wild Fish Products.<sup>2</sup>

## **Physical separation of product**

Due to the nature of tuna purse seine harvesting, both FAD and FAD-free sets are usually made by the same vessel during the same trip,<sup>2</sup> creating a need to ensure that FAD-free eligible tuna are kept separate and not mixed with tuna from FAD sets.

- If both set types (FAD and FAD-free) are used during the same trip, there must be complete segregation of FAD and FAD-free catch in separate holding wells<sup>2</sup>. Wells should be clearly identified as FAD or FAD-free on the vessel (e.g. via labels or tags on hatches), and on storage documentation (e.g. well diagrams).
- To ensure no mixing of FAD and FAD-free sets, any opening of wells or transfers/unloading of harvest should be conducted by personnel (e.g. stevedores) trained in traceability protocols and recorded via electronic monitoring of the wells.
- Wells, once full, should be sealed (e.g. using a certain color zip tie or uniquely numbered and formally recorded 'lead' seals), and not opened until offloaded.
- Captain's logbooks should note well numbers and include unique identifiers on nets that correspond to the harvest event for both FAD and FAD-free sets.

## Justification

- Robust and auditable traceability protocols allow all companies operating harvest vessels (and their customers) to know the traceability practices that apply to FAD-free tuna, regardless of RFMO, flag state, or origin.
- Audits conducted by third-parties remove subjectivity from traceability and verification assessments, allowing auditors to be more consistent across audits.
- Collecting standardized Key Data Elements allows for more expedient checks of critical information associated with a set and/or shipment of tuna.
- Modernized, electronic data systems allow for expedited data sharing across the supply chain and reduces the potential for human error.
- Strong traceability practices and documentation are needed when tuna are being loaded or unloaded from vessel wells to prevent commingling and retain the integrity of FAD-free claims.

## Concerns

- There is disagreement as to whether it would be best practice for traceability protocols to be standardized across RFMOs, certification programs, and private companies, or allow for regional modification.
  - At minimum, aligned definitions of 'associated' and 'unassociated' sets across RFMOs would ensure FAD-free verification could pursue the same standard.

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<sup>1</sup> Most government systems have some built-in error checking capability to reduce the number of data entry errors. Some governments might be resistant to allowing unchecked, un-proofed data to be released.

<sup>2</sup> [Expert Panel on Legal and Traceable Wild Fish Products, 2015](#)

#### Future Best Practice

- To simplify vessel-level traceability of set type and prevent co-mingling of FAD and FAD-free product, vessels making FAD-free claims on products should not engage in FAD fishing during the same fishing trip where FAD-free fishing occurs.<sup>1</sup>
- Companies should make traceability data systems interoperable with downstream companies over time.

### **Recommendation 3: Conduct third-party audits**

Third-party audits provide another independent source of information that can be leveraged to verify FAD-free claims. Companies making FAD-free tuna claims should conduct annual third-party vessel audits to ensure traceability practices are being implemented at the time of catch through offloading. All subcontractors should also be audited annually. Companies can share audit results (in part or in total) with customers and other stakeholders to demonstrate their commitment to independently verify product claims.

In the context of FAD-free tuna, third-party audits serve to:

- Provide insight about compliance with traceability and chain of custody protocols and product handling
  - Audits can be conducted both in person (e.g. to observe practices at port) and via paperwork/data analysis (e.g. to check records for completeness).
- Auditors can spot-check the accuracy of data to ensure it aligns with (is in agreement with) public data sources (e.g. size and species composition of FAD-free catch).

Recommended qualifications of a purse seine tuna third-party auditor can be seen below, and should not be considered an exhaustive list:<sup>2 3 4</sup>

- Auditors should undergo FAD-free specific training in alignment with the traceability protocols outlined in Recommendation 2.
- Auditors should have training from an accredited third-party organization to ensure voluntary sustainability standards are being implemented with consistency across applicable fisheries, as well as conform to organization's change in requirements for accreditation (if they change), and re-accreditation processes as needed.
- All auditors should conform to the requirements of ISO/IEC Guide 17065:2012\* and all other requirements of the traceability protocol relevant to the scope of the accreditation applied for and use IAF Guidance to interpret the guide.
- All auditors should follow guidance on auditing provided in ISO 19011:2011.\*
- All auditors should operate with professional integrity, free from commercial, financial, or other outside pressures which might affect his or her judgement and are not allowed to promote any goods or services during his or her auditing/evaluation process, and ensure there is no conflict of interest.

#### Justification

- Self-verification of FAD-free claims by tuna companies is not adequate for robust verification because companies have financial incentives to claim tuna is FAD-free; claims should be periodically and independently assessed to demonstrate accuracy.
- Audits can help ensure proper CoC is maintained on the vessel (e.g. during unloading at port) and down the supply chain (e.g. interview staff, oversee processes in action, and/or review documents and records).
- Audits conducted by third parties remove subjectivity from traceability and verification assessments, allowing auditors to be more consistent across audits.

#### Concerns

- There is a risk that auditors will not always uniformly apply protocols.
  - Seafood companies are ultimately responsible for ensuring their auditors are properly trained and accredited, licensed, and re-licensed to audit against FAD-free verification protocols.

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1 As of August 2018, fisheries seeking MSC certification will no longer be permitted to use both certified and uncertified catch methods on a single trip. Fisheries currently in assessment or already certified will have three years to transition. Therefore, MSC certified tuna fisheries will not be using FAD and FAD-free catch methods on the same fishing trip, eliminating 'mixed trips.'

2 [Accreditation Services International Accreditation Procedure](#)

3 [Fair Trade USA Quality Manual](#)

4 [Marine Stewardship Council Certification Requirements: General Requirements for CABs](#)



## Recommendation 4: Make FAD-free verification methods public

Companies should make public their FAD-free verification practices and protocols either upon request or on a public-facing platform (e.g. a Corporate Social Responsibility webpage or the [Ocean Disclosure Project](#)). Information regarding third-party audits should be made public (e.g. who performs third-party audits, how frequently audits are conducted, what is being audited). Audit results and plans to remediate nonconformities should be publicly available. Protocols used to ensure product segregation and traceability should also be made public.

### Justification

- Transparency allows consumers and the supply chain (e.g. retailers) to better determine if FAD-free tuna suppliers are meeting their sourcing commitments and/or responsible seafood policies.
- Making the audit process transparent to the supply chain and customers will improve confidence in FAD-free claims and chain of custody.

### Concerns

- The publication of FAD-free verification practices and protocols may reveal weaknesses and gaps in the system that could be exploited by some fishing companies, potentially allowing them to conduct unauthorized activities while still following FAD-free practices and protocols.
- Intellectual property concerns from those who developed the FAD-free verification practices and protocols may hamper efforts to make them public.
- Some fishing companies are concerned that the publication of FAD-free verification practices and protocols might reveal confidential information about their activities.
- Some data owned by governments may be subject to data protection legislation that may delay or prevent some data from being made publically available.

## Recommendation 5: Observers should not be used to verify FAD-free tuna claims for supply chains

To protect the safety of human observers at sea, alternative independent means of FAD-free verification such as increased data monitoring, electronic monitoring, or third-party audits should be utilized.<sup>1</sup>

### Justification

- Price premiums or other incentives associated with FAD-free tuna may create additional observer safety issues\* if observers are required to aid in verification of FAD-free supply chain claims. Verification of FAD-free tuna based on observer data could provide an incentive for some fishing companies to pressure observers and their employers to alter data to preserve their FAD-free tuna claims, affecting an observer's independence from fishing companies.
- Regional observer coordinators in the Western and Central Pacific region do not recommend their observers participate in MSC CoC verification as it exposes them to safety concerns such as threats, intimidation, and harassment.<sup>2</sup>
- The primary duty of observers is to collect data to support and improve fisheries research and management. Additional responsibilities relating to third-party verification of FAD-free tuna could distract observers from this duty which may affect the quality of the data they provide.

### Concerns

- Although we recommend observers play no role in FAD-free tuna verification for supply chain claims, they remain vital for collecting at-sea scientific and, where required, compliance data for fisheries management – including purse seine tuna fisheries – and may therefore still face safety issues from fishing vessel crew and companies seeking to hide unauthorized activity. Safety concerns have a detrimental effect on their human and labor rights, which in turn could undermine their effectiveness at monitoring fishing activities.

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<sup>1</sup> It should be recognized that observers are required to record and report whether a set is a FAD set or a free school set for fisheries management purposes, however all efforts should be made to keep observer logbooks and reports confidential.

<sup>2</sup> [17th Regional Observer Coordinators Workshop Nadi, Fiji February 6th – 10th](#)

# The Work Ahead

There are many opportunities ahead for collaborative work within purse seine tuna fisheries. To support the five recommendations presented above, it is important that continued efforts are made to:

- Standardize terminology used for FAD-free verification across all RFMOs, to ensure there is clear understanding of what constitutes FAD-free fishing<sup>1</sup>
- Further develop standards for correctly designating a set FAD-free when fishing where FADs are present but further away than the RFMO-designated threshold distance

The purpose of this document and recommendations is to identify robust mechanisms for verifying purse seine FAD-free tuna supply chain claims, and it therefore does not address all of the challenges faced by FAD and FAD-free tuna fisheries. However, the following were topics frequently raised in our research and represent steps companies, regulators, and NGOs should take to support improvements in purse seine tuna fisheries more broadly:

- Support the strengthening of FAD management within RFMOs to control pressure on tuna stocks
  - E.g. Implement designs that reduce bycatch by specifying FAD materials and construction (e.g. using natural and biodegradable frames such as bamboo instead of plastic, or non-entangling subsurface materials such as ropes or canvas)
- Engage with tuna fishery managers, RFMOs, and the observer programs and employers under their authority to champion adoption, implementation and compliance with the [International Observer Bill of Rights](#) and other observer safety improvements<sup>2</sup>

See Appendix II for additional roles and responsibilities for implementing these best practice measures.

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1 Terms needing further alignment include, but are not limited to: material composition, natural vs. human-made FADs, deployed vs. found FADs, distance from FADs required for 'unassociated'/'free-school' classification.

2 Additional improvements include championing the WCPFC's swift and effective communication of their observer safety reforms while encouraging all other tuna RFMOs (IOTC, IATTC, ICCAT, CCSBT) to implement similar reforms.





# Glossary

List of definitions of key terms, mentions of multiple sources of definitions, if applicable.<sup>1</sup>

**Associated (also described as FAD):** tuna schools associated with and caught with the aid of FADs

**Automatic Identification Systems (AIS):** tracking systems which broadcast a vessel's identity, position, and other; all commercial vessels larger than 300 gross tons must use AIS, but it is not mandatory for fishing vessels unless a coastal state requires it for ships under its jurisdiction (Source: Pew)

**Chain of Custody (CoC):** documentation showing the transfer of ownership of seafood product every time that product changes ownership and/or is altered or repacked; certifiers often require partners to adhere to a specific chain of custody protocol in order to move labeled, certified product through the supply chain (Source: Future of Fish)

**Cooperating Non-Contracting Party (CNCP) of RFMO:** a non-member of a RFMO who is a coastal state, or has an interest in fishing, or whose fishing vessels fish or intend to fish within the RFMOs area of jurisdiction and agrees to abide by its rules and regulations for non-members (also called Cooperating Non-Member (CNM))

**Critical Tracking Event (CTE):** a specific point along a supply chain where certain key data elements need to be captured for the purpose of enabling traceability of a product. CTEs for seafood include harvest, landing, primary processing, aggregation, packaging, shipping, receiving, and sale (Source: Future of Fish)

**Electronic Monitoring:** typically refers to closed circuit video cameras, sensors to monitor use of fishing gear, a GPS receiver, and a control center to manage, process and store data. EM tools can also include vessel monitoring systems (VMS), electronic logbooks, and additional sensor data, and can be a valid tool to monitor the fishing effort, total catch by set, and bycatch (Source: Environmental Defense Fund, ICCAT's Minimum standards for the implementation of electronic monitoring systems for the tropical tuna purse seine fleet, Ruiz et al., 2015)

**FAD-Free (also described as non-associated or unassociated):** fishing on a free swimming school of tuna without the use or association with FADs. FAD-free fishing typically takes place in daylight, at a location that is a minimum of either one or five nautical miles away from a FAD (depending on the RFMO), and is not associated with another small vessel (Source: atuna.com)

**Fish Aggregating Device (FAD):** any object or group of objects, of any size, that has or has not been deployed, that is living or nonliving, including but not limited to buoys, floats, netting, webbing, plastics, bamboo, logs and whale sharks floating on or near the surface of the water that fish may associate with (Source: WCPFC) buoys and platforms used to attract and 'hold' pelagic fishes to enhance fishing, or, drifting (DFAD) or anchored floating or submerged objects (AFAD) deployed for the purpose of aggregating target tuna species (Source: IOTC); or anchored, drifting, floating or submerged objects deployed and/or tracked by vessels, including through the use of radio and/or satellite buoys, for the purpose of aggregating target tuna species for purse-seine fishing operations (Source: IATTC); or artificial or natural objects placed on the surface that attract several species underneath, thus increasing their catchability (Source: ICCAT)

**Fisheries Observer:** a person who is authorized by a regulatory authority to collect fishing data on board a fishing vessel. Although observers may not have any enforcement powers they are often tasked with the collection of fisheries enforcement related data as well as other fisheries management related data (Source: Association for Professional Observers)

**Free School (also described as unassociated or non-associated):** setting on a free-swimming school of generally large, mature fish without the use or association with FADs. Free schooling tuna can be spotted with the use of helicopters, strong binoculars, look-outs, or information about currents and oceanographic features (Source: atuna.com, IOTC Proceeding no. 6, 2003) See also: FAD-free, unassociated

**Indian Ocean Tuna Commission (IOTC):** an intergovernmental regional fishery management organization (RFMO) responsible for the management of tuna and tuna-like species in the Indian Ocean (Source: IOTC)

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<sup>1</sup> For a more detailed list of FAD definitions, please refer to the WCPFC's [What does well-managed FAD use look like within a tropical purse seine fishery?](#)

**Inter-American Tropical Tuna Commission (IATTC):** an intergovernmental regional fishery management organization (RFMO) responsible for the conservation and management of tuna and other marine resources in the eastern Pacific Ocean (Source: IATTC)

**International Commission for Conservation of Atlantic Tunas (ICCAT):** an inter-governmental regional fishery management organization (RFMO) that is responsible for the conservation of tunas and tuna-like species in the Atlantic Ocean and its adjacent seas (Source: ICCAT)

**International Observer Bill of Rights:** a document for observer employers and programs which defines the terms of employment that will help ensure a fair and safe working environment for all observers regardless of nationality. It is complemented by the provisions of the Code of Conduct for Responsible Observer Programmes, Observer Health and Safety (CCROP-HS), and Stakeholder Responsibilities (CCROP-SR). The custodian of this document is the Association for Professional Observers (Source: APO)

**International Organization for Standardization (ISO) 19011:2011:** an international standard providing guidance on auditing management systems, including the principles of auditing, managing an audit program, and conducting management systems audits, as well as guidance on the evaluation of competence of individuals involved in the audit process, including the person managing the audit program, auditors and audit teams (Source: ISO)

**International Organization for Standardization (ISO)/International Electrotechnical Commission (IEC) Guide 17065:2012:** an international standard, created by a specialized, joint system for worldwide standardization, containing requirements for the competence, consistent operation and impartiality of product, process, and service certification bodies (Source: ISO)

**International Seafood Sustainability Foundation (ISSF):** an NGO comprised of scientists, industry leaders, and environmental champions with the shared mission to undertake and facilitate science-based initiatives for the long-term conservation and sustainable use of global tuna stocks, reducing bycatch and promoting tuna ecosystem health (Source: ISSF)

**Key Data Elements (KDEs):** pieces of information that capture the who, what, where, and when of a seafood product as it moves through different Critical Tracking Events in the supply chain. Industry-wide agreement about what information needs to be captured continues to be a work-in-progress (Source: Future of Fish)

**Observer Employer:** this includes any employer of an observer (government observer program or private company). If a private company (sometimes referred to as an observer provider), it is one that is contracted (or permitted) by the regulatory authority to carry out the purpose of providing monitored entities with observers (Source: IOBR)

**Observer Interference:** any physical or circumstantial manipulation that has the effect of preventing or influencing any aspect of the observer's duties in a way that prevents the observer from carrying out their duties according to the observer program's protocols (Source: IOBR)

**Observer Program:** this includes all personnel of an agency, organization, and/or contracted non-observer entity who are responsible for the direct management of the monitoring program, including trainers, briefers, debriefers, port coordinators, observer coordinators, and logistic personnel. May or may not include the observer employer company staff (Source: IOBR)

**Observer Safety Issues:** any safety concerns that can negatively affect an observer's human rights, labor rights, and ability to perform their duties. This can include, but not limited to, harassment, threats, physical violence, intimidation, bribery, interference, and insufficient training

**Parties to the Nauru Agreement (PNA):** an agreement that brings together eight Pacific Island countries to sustainably manage tuna and increase economic benefits for their peoples including Federated States of Micronesia, Kiribati, Marshall Islands, Nauru, Palau, Papua New Guinea, Solomon Islands and Tuvalu who combined, control 50% of the global supply of skipjack tuna (Source: WFF)

**Regional Fisheries Management Organization (RFMO):** an international body made up of countries that share a practical and/or financial interest in managing and conserving fish stocks in a particular region, and include coastal States, whose waters are home to at least part of an identified fish stock, and "distant water fishing nations" (DWFN), whose fleets travel to areas where a fish stock is found (Source: Pew)

**Seafood Task Force:** formerly known as the Shrimp Sustainable Supply Chain Task Force, the Seafood Task Force is a



multi-stakeholder alliance working to drive measurable social and environmental change in the Thai seafood industry through greater supply chain accountability, verification and transparency (Source: Seafood Task Force)

**Unassociated (also described as non-associated or free school):** tuna schools not associated with FADs or floating objects, aka free-school or FAD-free

**Vessel Monitoring System (VMS):** satellite surveillance systems used by commercial vessels that use secure satellite-based communications, generally sent from a vessel to fisheries management authorities and owner companies, to indicate a vessel's identification, location, time, course, and speed via onboard transceiver units (Source: Pew, NOAA)

**Western and Central Pacific Fisheries Commission (WCPFC):** an intergovernmental regional fishery management organization (RFMO) that seeks to ensure, through effective management, the long-term conservation and sustainable use of highly migratory fish stocks (i.e. tunas, billfish, marlin) in the western and central Pacific Ocean (Source: WCPFC)

# Appendix I: Implementing Auditable Traceability Protocols at Different Stages of FAD-Free Tuna Harvest

Below are example protocols that should be considered during tuna harvest, and should not be considered a comprehensive list (continued from p. 6).

## ***Before initiating a fishing trip***

- FAD-free traceability plans should clearly define the roles and responsibilities of the harvesting company personnel, and other parties involved (e.g. auditors, receiving entities, etc.).
  - Fishing vessel crew, dock personnel, auditors, and other pertinent individuals should be trained specifically for their part in complying with FAD-free traceability protocols.
- The fishing company should document, in advance, all vessels intending to harvest FAD-free tuna and pre-register, if required, by a certification body if applicable.
- If a fishing company uses subcontracted vessels, those vessels should undergo similar pre-registration with a signed agreement/contract to fish following the same traceability protocols.
- Electronic monitoring equipment should be tested to ensure it is operational.

## ***During harvest and loading***

- Electronic monitoring should be used to record all fishing activities such as setting, pursing, brailing, sorting, loading catch into wells, transfers, offloading at port.
- Specific protocols should be in place for identifying FAD-free eligible sets (e.g. distance from FADs, gear set pattern, hours of eligible harvest).
  - Protocols should also clearly list ways product could be disqualified from claiming FAD-free (e.g. FAD drifts/swims within boundary before nets close, discovery of FAD within net, FAD indicator species within catch, improper catch transfer procedure used, traceability documentation compromised or separated from product).

## ***After fishing***

- Electronic monitoring should be used to record all key fishing activities such as transfers between wells and/or vessels, transshipment, and offloading at port.
- Critical documentation should be made available upon request (e.g. by auditors, supply chain, and/or consumers) for the purposes of verification.
- Fishing companies, retailers, or other parties with a vested interest in FAD-free claims should not request or be granted access to fisheries observer reports or observer logbooks at any time. Fisheries authorities should only grant independent third parties (e.g. auditors) access to observer data about FAD usage aboard specific vessels.

## ***Product disqualification***

- If the eligibility of a FAD-free set comes into question, a protocol should exist which outlines the procedures to be taken to determine if a set is truly eligible for FAD-free status or not. Examples of protocols include, but are not limited to review of electronic monitoring data and footage and comparison to other data sources (e.g. logbooks), to be exercised by an independent, third party.
- Port sampling enables a third-party intermediary, with a designated and standard set of sampling protocols, to sample tuna in vessel wells and assess species composition of the set or sets contained in a well, record presence of any indicator species (i.e. triggerfish, rainbow runner, mahi mahi) which might disqualify a set as being FAD-free, and ensure weights are being appropriately recorded.
- Mass balance enables a third-party intermediary to identify and compare declared amounts of FAD-free caught tuna with declared imports and exports, and can identify significant irregularities in catch or trade of FAD-free claimed tuna.



# Appendix II: Roles and Responsibilities for Implementing Best Practice Measures

The adoption and implementation of these FAD-free tuna verification best practices will require collaboration among stakeholders. This appendix outlines some roles and responsibilities for supporting the five recommendations outlined in this document.

## **Fisheries managers/RFMO members and CNCPs/Flag States/Coastal States**

- RFMOs and certification schemes should align definitions of FAD (associated) and FAD-free (unassociated or free school fishing).
- RFMOs should create and implement adequate FAD management plans.
- All parties should support and promote the adoption of electronic monitoring and include policies requiring electronic monitoring in FAD-management plans.
- As part of a comprehensive FAD management plan, RFMOs should create and standardize an internationally-recognized FAD marking scheme.
- To improve the safety of observers, RFMOs should adopt the International Observer Bill of Rights for all observer programs and employers operating in their area of authority.

## **Companies employing observers**

- Observer programs and other employers that provide on-vessel observers for tuna fishing vessels operating within an RFMO's area of competence are responsible for training observers to, at least, the minimum standards adopted by that RFMO.

## **Fishing companies**

- Monitoring systems should be installed, covering all purse seine vessels that harvest tuna using FAD-free methods (see Recommendation 1).
- Fishing companies are responsible for implementing robust and auditable traceability protocols within their organizations, overseeing the training of staff, and managing documentation and other information that supports the traceable verification processes.
- If companies subcontract, companies have the obligation to ensure that subcontractors also comply with traceability protocols via written agreement/contracts; companies should conduct audits of their subcontractors to ensure proper implementation.
- Fishing companies are responsible for passing information to appropriate authorities and communicating pertinent traceability information down the supply chain.
- Appropriate information should be shared through the supply chain for retailer confidence and credibility when making FAD-free claims.
- Fishing companies are responsible for contracting third-party auditors to independently assess FAD-free claims, ensuring audits are included in traceability protocols, and are implemented.
- Information about third-party audit methods, and at minimum a summary of findings, should be made public on the company's website.

## **Retailers/Foodservice/Distributors**

- It is the responsibility of retailers, foodservice companies, and distributors to inquire with FAD-free tuna suppliers about the proportion of harvest vessels currently using electronic monitoring, and consider adopting a policy that all FAD-free tuna should be monitored electronically (see Recommendation 1).
- Retailers, foodservice companies, and distributors should support the adoption of robust and auditable traceability measures in purse seine tuna fisheries and inquire about their use within sourcing supply chains.
- Policies and/or commitments regarding sourcing of FAD-free tuna, and the methods retailers, foodservice companies, and distributors intend to use for verifying those claims, should be made public. Additionally, companies should report progress against its policy and commitments and how it is working towards implementing best practices.
- Companies should inquire with FAD-free tuna suppliers about their current use of third-party audits, and consider adopting a policy that all FAD-free tuna should be audited by an independent third party to ensure the

validity of FAD-free claims.

- Companies should not request that observer data are used to verify FAD-free tuna for supply chain claims.

#### **NGOs**

- NGOs should make a coordinated ask of fishing companies to increase adoption of electronic monitoring for both FAD-free verification and observer safety.
- There should be a coordinated ask of fishing companies to increase the adoption of third-party auditing for companies that source FAD-free caught tuna.
- NGOs should support the creation and alignment of robust and auditable traceability protocols by aligning their recommendations for standards and best practice criteria, in coordination with industry standards.
- NGOs should oppose the involvement of observers in third-party verification of FAD-free tuna.