



GTA Fish Aggregating Device (FAD) Management Best Practices – May 2021

Vision Statement

The Global Tuna Alliance aims to develop a tuna industry where FADs, irrespective of gear-type, are non-entangling with no netting design, biodegradable, aim to (if not recovered) cause no harm to the marine environment, are independently observed in use and implement best practise to reduce by catch. We further require full transparency and data sharing for FAD operation and fisheries management. Tuna RFMOs are crucial in delivering this vision, and must demonstrate leadership.

Needed within 6-12 months	Needed By 2025 at the latest (unless stated)
Reducing Number	
Adopt science-based limits on FAD deployments and FAD sets.	The t-RFMOs should explore opportunities for consistency and harmonization, if possible, Sharing of knowledge of best practices. across t-RFMOs in FAD management measures
Design Improvements	
Require the use of non-entangling FAD designs; including prohibiting the use of any material that could unravel and cause ghost fishing and entanglement	Whilst the priority is full tracking and increased recovery, all existing FADs should have transitioned to being 100% biodegradable ¹ to minimise impacts of 'lost' FADs by 2024.
	All new FAD designs should be 100% biodegradable ¹ by 2023
	From 1 January 2022, all vessels must remove from the water, retain onboard and only dispose of in port, or render non-entangling before reusing, all traditional FADs encountered (e.g. those made of entangling materials or designs).
Tracking/Recovery	
Require reporting of electronic data on FAD use (tracks, echo sounders, estimates of biomass) to fishery authorities within appropriate timescales ² for monitoring, control and surveillance purposes.	Ensure FAD tracking & deployment data can be independently verified.
Require data reporting by set type (free swimming school, natural log, drifting FAD, anchored FAD, dolphin association, whale shark, dead whale) & comply with all other flag state & RFMO reporting requirements.	RFMOs compliance committees develop sanctions for failure to report FAD data correctly.
Require that RFMOs collect and publish data on the number and use of supply vessels, including identifying which vessels each support, and the number of FADs being deployed (active and inactive) and serviced by such vessels.	Require all RFMOs to develop best practices to maximise recovery of deployed FADs at the end of their useable life.

¹ With the exception of materials used for the instrumented buoys and buoyancy

² ≤24hrs for FAD recovery purposes; ≤3 months for compliance and management purposes

Ensure 100% observer coverage of trip activity (via human and/or electronic monitoring), including for vessels engaged in supply and tender activities.	Require all FAD users to demonstrably implement best practices to maximise recovery of deployed FADs at the end of their useable life.
Require activation of operational buoys, as defined by the joint tuna RFMO FAD 2019 meeting, prior to deployment	Implement projects to increase FAD recovery to maximum practical levels.
RFMOs to develop clear rules for deactivation of FAD buoys at sea.	Publish an annual summary of lost and recovered FADs by fleet
Require development of a FAD recovery policy that reduces marine debris and stranding, including through the use of arrangements to alert coastal countries of derelict FADs.	
Publish an annual summary of lost and recovered FADs by RFMO	
Develop and implement a FAD marking scheme based on the FAO Guidelines on the Marking of Fishing Gear for all new FAD deployments, regardless of vessel type.	
Record and provide to RFMOs, and fishery authorities, data on FAD activity (deployments, visits, sets and loss) and FAD structure through "FAD logbooks."	
GTA considers ownership of FADs in the first instance should be the responsibility of the last legal owner. FAD ownership should form part of the mandatory information to be collected by the RFMO	
Bycatch	
Require safe handling and practices for marine turtles, sharks and rays (such as those contained in ISSF best practices and those adopted by certain RFMOs such as IATTC and WCPFC).	More funding and efforts must be dedicated to echo-sounder research with the aim of being able to identify juvenile tuna responses. Also, to understand the possibility of detecting shark and other bycatch responses.
Require additional mitigation measures for the avoidance of shark bycatch, in particular silky sharks, such as passive mitigation, avoidance measures and release from nets.	Identify, and implement, mitigation measures that reduce the mortality levels of juvenile tuna in FAD fisheries (irrespective of gear).
Other	
Ensure FAD management measures also apply to all vessels engaged in supply and tender activities.	
Identify on RFMO Records of Fishing Vessels what activities supply and tender vessels are engaged in, whether they are working as bait boats, services FADs, or engaging in fishing.	
All fishery management authorities to define 'free school'.	
FAD management objectives should be defined, both within each t-RFMO and jointly, to guide	

research, data collection, and the development of effective conservation measures	
Using provided FAD track data, promote research to determine deployment areas that are highly likely to result in stranding on sensitive habitats and to identify areas of high incidence of stranding events and positional data on stranded FADs to enable targeted recovery.	

Glossary

Fish Aggregating Device (FAD) means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna species for consequent capture.

Abandoned FAD: FAD from which the communication has been intentionally stopped by deactivating the buoy or has been left at sea without a buoy.

Active FAD: A FAD that is capable of transmitting by the presence of a functioning satellite-transmitting buoy.

Anchored FAD: A FAD tethered to the bottom of the ocean. It usually consists of a very large buoy and anchored to the bottom of the ocean with a chain.

Beaching: Event consisting of a FAD washing ashore and becoming grounded, beached or entangled on a reef, potentially causing damage to coastal ecosystems.

Biodegradable FAD: Fish aggregating devices constructed with natural or biodegradable materials that reduce the impact of beaching and debris. The term biodegradable is applied to a material or substance that is subject to a chemical process during which microorganisms that are available in the environment convert materials into natural substances such as water, carbon dioxide, and decompose organic matter. In addition, the substances resulting from the degradation of these materials should not be toxic for the marine and coastal ecosystems or include heavy metals in their composition. Biodegradable materials should allow a maximum lifetime of FADs of one year and then degrade as fast as possible.

Deactivated FAD: FAD with a de-registered buoy. Carried out by the buoy supplier company after the request by the vessel owner. From then on, the communication service is no longer billed, and the buoy stops transmitting.

Deployed FAD: FAD that is physically placed or deposited in the water by a vessel engaged in or supporting the activities of fishing.

Drifting FAD: A FAD not tethered to the bottom of the ocean. A DFAD typically has a floating structure (such as a bamboo or metal raft with buoyancy provided by buoys, corks, etc.) and a submerged structure (made of old netting, canvass, ropes, natural material such as bamboo, etc.).

Encountered FAD: Any FAD which a vessel comes across and/or interacts with in the course of fishing.

FAD Owner Vessel: The vessel that last deployed and/or monitored a satellite buoy on a FAD. This may change during the life-time of a FAD with FAD appropriation, and buoy leasing and selling processes.

FAD Set: Setting a fishing gear around a tuna school associated with a FAD.

Floating Object: Any natural or artificial floating (i.e. surface or subsurface) object with no capability of moving on its own. FADs are those floating objects that are man-made and intentionally deployed and/or tracked. Logs are those floating objects that are accidentally lost from anthropic or natural sources.

Floating Object Set: Setting a fishing gear around a tuna school associated with a floating object.

Free School Set: The net is set around a free-swimming school of tuna, i.e. a school that is not associated with any floating object or cetaceans.

Log: Artificial (ALOG) or natural (NLOG) floating objects resulting from contingency (from anthropic or natural sources). They can be classified as FALOG (artificial log resulting from accidental loss from human fishing activity), HALOG (artificial log resulting from human non-fishing activity), ANLOG (natural log of animal origin) and VNLOG (natural log of vegetal origin).

Lost FAD: FAD that can no longer be tracked by any vessel because the information of the buoy attached is no longer received due to several deliberate or involuntary reasons (buoy satellite transmission terminated or lost, FAD and/or buoy sinking, drifted out of range, etc.).

Monitored FAD: A FAD with a satellite buoy transmitting position at least every day.

Non-entangling FAD: FAD designed to eradicate ghost fishing and entanglement both during and after the useable life of a FAD.

Operational buoy: Any instrumented buoy, previously activated, switched on and deployed at sea, which transmit position and any other available information such as eco-sounder estimates.

Support Vessel: A vessel that operates in support of purse seine vessels fishing on FADs, and whose role is to deploy, repair, retrieve or maintain FADs at sea.