

Comisión Interamericana del Atún Tropical Inter-American Tropical Tuna Commission



Definitions of terms related to FAD fishing, notably those related to science and management of FADs

Joint t-RFMO FAD Technical Working Group

2ª Reunión del Grupo de Trabajo conjunto de las OROP atuneras sobre plantados
2nd Meeting of the Joint Tuna RFMOs Working Group on FADs
San Diego, California USA, 08-10 May 2019

List of key areas for future action for the joint t-RFMO FAD WG

KEY AREAS	SPECIFIC ACTIONS	KOBE	RFMO	CPC
	<p>Legal aspects:</p> <ul style="list-style-type: none"> – Definition of a FAD – Definition of ownership and responsibilities 	X	X	
	<p>Definitions and common indicators:</p> <ul style="list-style-type: none"> – Identify available sources for common definitions – Harmonize definitions related to science and management of FADs: FAD set (associated vs non-associated), non-entangling, biodegradable, active buoy, type of operation at FADs etc. Prioritization should be given to those definitions with direct management implications and the science needed to guide that management 	X	X	



Co-funded by
European Union



iotc ctot



Western and
Central Pacific
Fisheries
Commission

Objective

Elaborate harmonized definitions related to science and management of FADs.

Discussion Topic 2 of the Joint t-RFMO FAD Technical Working Group

Conduct a revision of current definitions used in the different tRFMOs and other sources, fostering a greater harmonization, giving priority to those definitions with direct management implications and the science needed to guide that management.



Co-funded by
European Union



Western and
Central Pacific
Fisheries
Commission

Work Plan

Work plan for Discussion Topic 2: Definitions

- 1. Compile the definitions currently adopted in each of the tRFMOs** [Dec 2018]. Members of the TWG will make available through basecamp the definitions adopted and/or used in the different tRFMOs and other sources.
- 2. Summarize and propose a first draft of common harmonized definitions** [Jan 2019]. The coordinator will conduct a revision of current definitions used in the different tRFMOs and other sources. He will prepare a summary of the definitions and will propose a first draft of potential common definitions
- 3. The TWG will agree on a second draft of common harmonized definitions** [March 2019]. The TWG will discussed through basecamp the 1st draft and will agree on a 2nd draft of definitions to be presented to the Joint t-RFMO FAD Working Group
- 4. The Joint t-RFMO FAD Working Group will adopt and recommend** a set of harmonized definitions related to science and management of FADs [May 2019]



Approach

Abandoned FAD

Synonyms:

<p>ICCAT, 2018. Report of the Standing Committee on Research and Statistics (SCRS) [Based on Grande et al., 2018]</p>	<p>FAD from which the communication has been intentionally stopped by deactivating the buoy attached or has been left at sea without a buoy.</p>
<p>IOTC Resolution 18-08. Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species</p>	<p>FADs without a beacon or which have drifted outside the fishing zone).</p>
<p>FAO, 2018. Report of the Technical Consultation on Marking of Fishing Gear. Rome, Italy, 5–9 February 2018. FAO Fisheries and Aquaculture Report No. 1236. Rome, FAO.</p>	<p>The term “abandoned fishing gear” means fishing gear over which that operator/owner has control and that could be retrieved by owner/operator, but is deliberately left at sea due to force majeure or other unforeseen reasons.</p>

Proposal of the joint t-RFMO Technical WG

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



Co-funded by
European Union



iotc ctoci



Western and
Central Pacific
Fisheries
Commission

Approach

FAD

Synonyms:

Fish-Aggregating Device [FAD]

IATTC C-18-05 . Amendment of Resolution C-16-01 on the collection and analyses of data on Fish-Aggregating Devices	For the purposes of this Resolution, the term “Fish-Aggregating Device” (FAD) means 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.
WCPFC CMM 2009-02 . Conservation and Management Measure on the Application of High Seas FAD Closures and Catch Retention [definition set out in WCPFC CMM 2009-02]	Any object or group of objects, of any size, that has or has not been deployed, that is living or non-living, 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.
IOTC 2013 . Glossary of scientific terms, acronyms and abbreviations, and report terminology	Buoys and platforms used to attract and „hold” pelagic fishes to enhance fishing. Can be as simple as a floating log or bamboo raft, but tuna fishers setting purse seine nets around tuna schools now deploy sophisticated FADs that allow satellite tracking and interrogation of information, such as sea surface temperature.
IATTC, 2018 . Recommendations of the IATTC FAD WG adopted by the Commission.	<u>Any floating object</u> , anchored or drifting, that has been constructed or modified, deployed and/or tracked, for the purpose of aggregating fish. Modified means the addition of any component for the purpose of improving its functionality. Tracked means the capacity of determining the location of the FAD or its actual determination.
IOTC Resolution 13-08 . Procedures on a fish aggregating devices (FADs) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species.	For the purpose of this Resolution, the term Fish Aggregating Device means drifting (DFAD) or anchored floating or submerged objects (AFAD) deployed for the purpose of aggregating target tuna species.
Hampton et al., 2017 . What does well-managed FAD use look like within a tropical purse seine fishery? Joint t-RFMO FAD Working Group Meeting, j-FAD_35/2017.	A man-made FOB specifically designed to encourage fish aggregation at the device.
FAO 2005-2019 . Fishing Technology Equipments, Fish Aggregating Device (FAD). Technology Fact Sheets. Text by J. Prado. In: <i>FAO Fisheries and Aquaculture Department</i> [online]. Rome. Updated 27 May 2005. [Cited 18 February 2019]	Fish Aggregating Device (FAD) is a permanent, semi-permanent or temporary structure or device made from any material and used to lure fish.
FAO, 2018 . Report of the Technical Consultation on Marking of Fishing Gear. Rome, Italy, 5–9 February	The term “fish aggregating device” (FAD) in these guidelines, without prejudice to the use of different definitions in other

2018.FAO Fisheries and Aquaculture Report No. 1236. Rome, FAO.	instruments, refers to a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed, and/or tracked, and used to aggregate fish for subsequent capture. FADs can be either anchored (aFADs) or drifting (dFADs)
ICCAT, 2016 . ICCAT Manual. International Commission for the Conservation of Atlantic Tuna. In: ICCAT Publications [on-line]. Updated 2016. [Cited 01/27/]. ISBN (Electronic Edition): 978-92-990055-0-7	Artificial or natural objects placed on the surface that attract several species underneath, thus increasing their catchability.
ISSF Glossary	Man-made floating objects specifically designed to encourage fish aggregation at the device. They can be anchored to the ocean floor (anchored FADs) or set to drift in the open ocean (drifting FADs).
ICCAT 16-01 . Recommendation by ICCAT on a Multi-Annual Conservation and Management Program for Tropical Tunas	<pre> graph LR FOB[FOB] --> FAD[FAD] FOB --> LOG[LOG] FAD --> AFAD[AFAD] FAD --> DFAD[DFAD] LOG --> NLOG[NLOG] LOG --> ALOG[ALOG] NLOG --> ANLOG[ANLOG] NLOG --> VNLOG[VNLOG] ALOG --> FALOG[FALOG] ALOG --> HALOG[HALOG] </pre>
Escalle et al., 2018a . Evaluation of dFAD construction materials in the WCPFC. WCPFC-SC14-2018/EB-IP-01	DFADs consist of two parts: i) the raft itself, including components to ensure buoyancy (e.g. buoys, floats, drums, pipes), and which is often covered by old nets or sacking to limit detection by other vessels or to act as a shadow to attract fish; and ii) submerged appendages to increase drag, reducing drifting speed and increasing its attractive power.

Code	Name	Example
AFAD	Anchored FAD	a moored floating object
DFAD	Drifting FAD	Bamboo or metal raft
FALOG	Artificial log resulting from human activity (and related to fishing activities)	Nets, wreck, ropes
HALOG	Artificial log resulting from human activity (not related to fishing activities)	Washing machine, oil tank
ANLOG	Natural log of animal origin	Carcasses, whale shark
VNLOG	Natural log of plant origin	Branches, trunk, palm leaf

Proposal of the joint t-RFMO Technical WG

Permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed, and/or tracked, and used to aggregate fish for subsequent capture. FADs can be either anchored (aFADs) or drifting (dFADs).

Definitions of terms related to FAD fishing operations

Abandoned FAD	Dolphin set	Floating object interaction	Monitored FAD
Active FAD	Drifting FAD	Floating object set	Natural FAD
Anchored FAD	Encountered FAD	Free school set	Non-entangling FAD
Associated set	FAD owner vessel	Log	Object set
Beaching	FAD set	Lost FAD	Tender vessel
Biodegradable FAD	Fish-Aggregating Device [FAD]	Marine mammal set	Unassociated set
Deployed FAD	Floating Object [FOB]	Mark	Whale shark set



Co-funded by
European Union



iotc ctoci



Western and
Central Pacific
Fisheries
Commission

BUOYS

Definitions of terms related to FAD fishing operations [BUOYS]

Abandonment (deliberate loss)	Instrumented Buoy
Acquired buoy	Loss (accidental loss)
Activation	Monitored/tracked buoys
Active buoy	Operational buoy
Buoy	Reactivation
Buoy in stock	Satellite Buoy (GPS or transmitter buoys)
Buoy owner	Shared buoys
Deactivation	Switching off
Echosounder Buoy	Switching on



Co-funded by
European Union

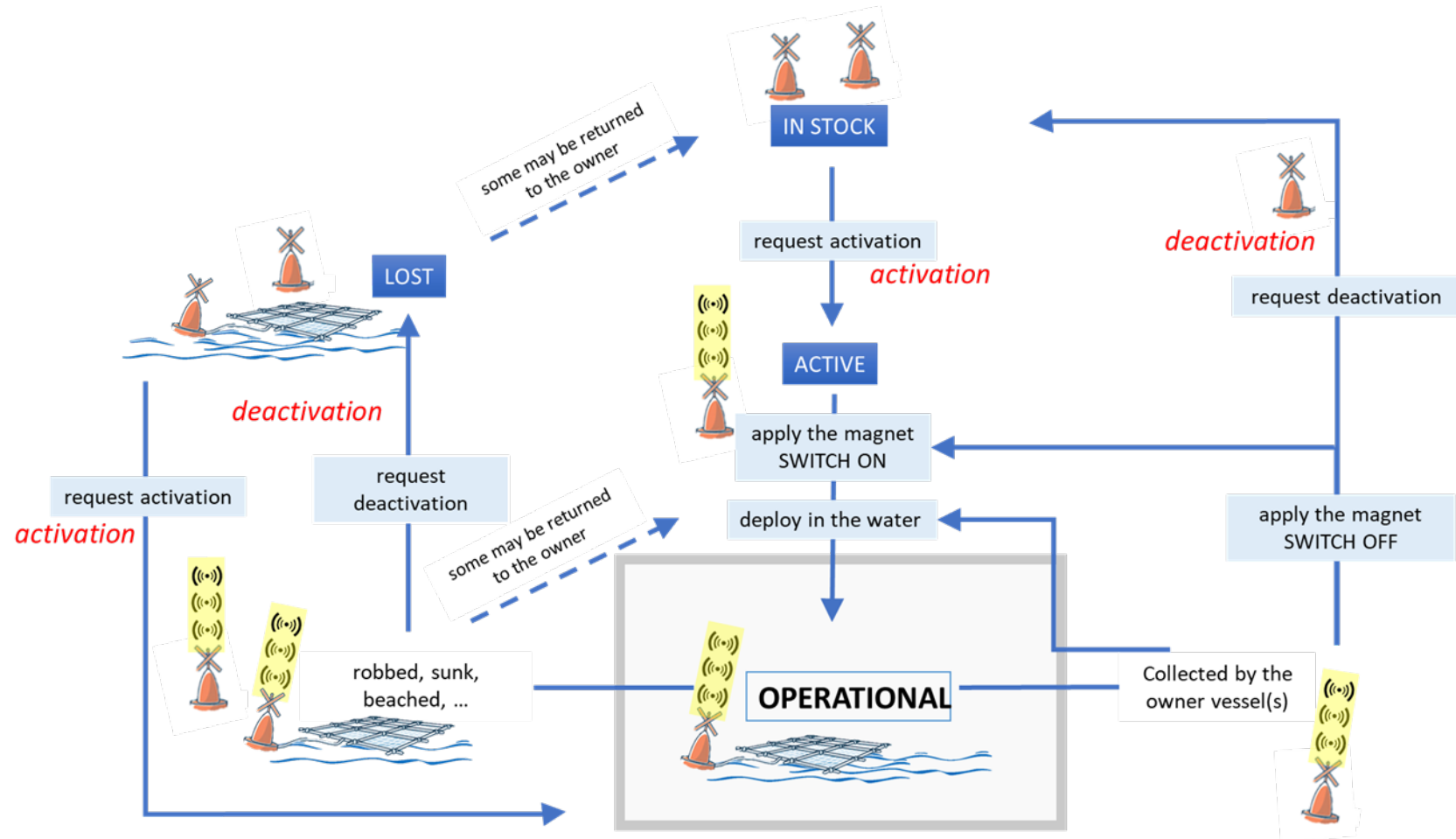


iotc ctoci

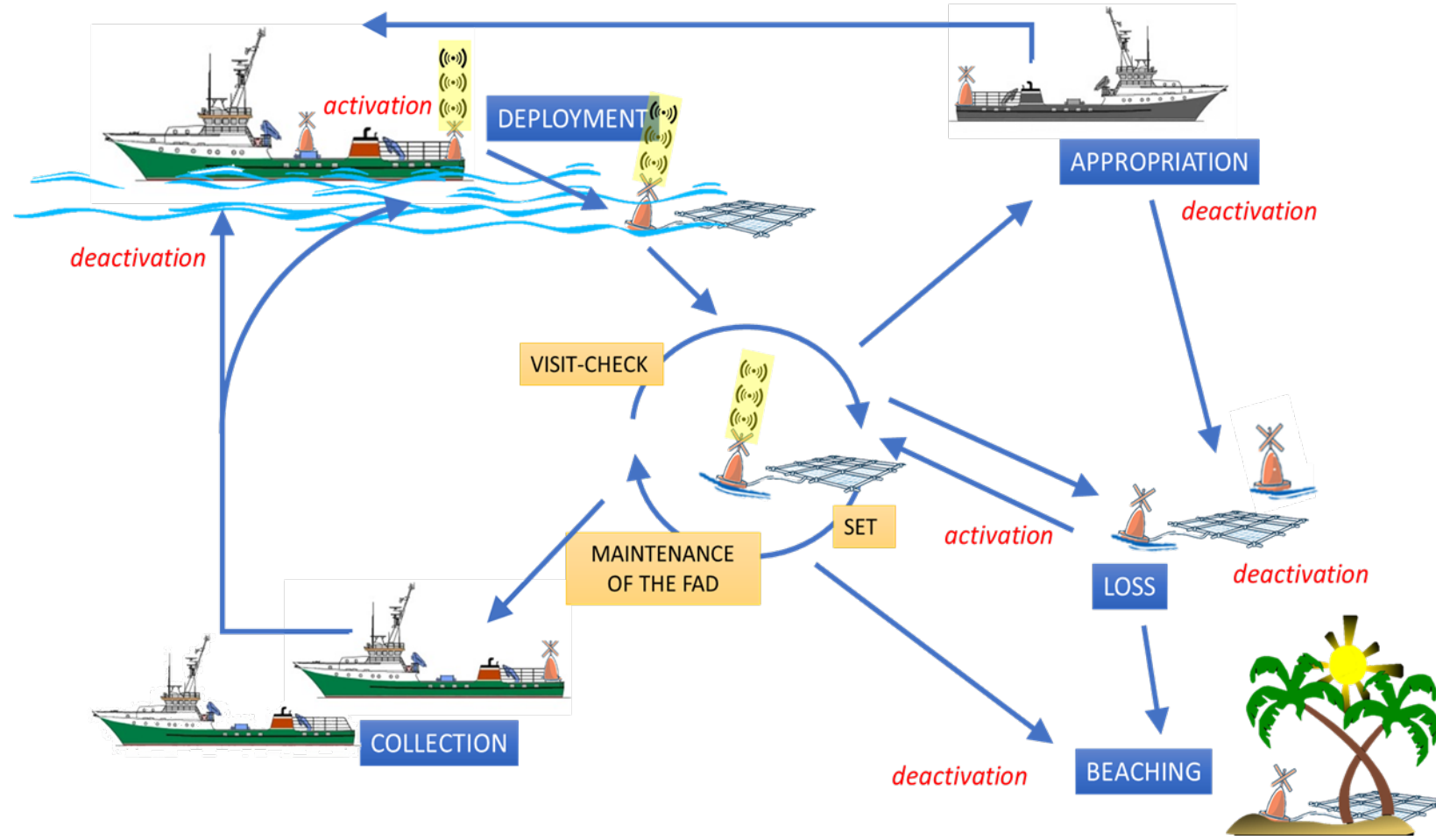


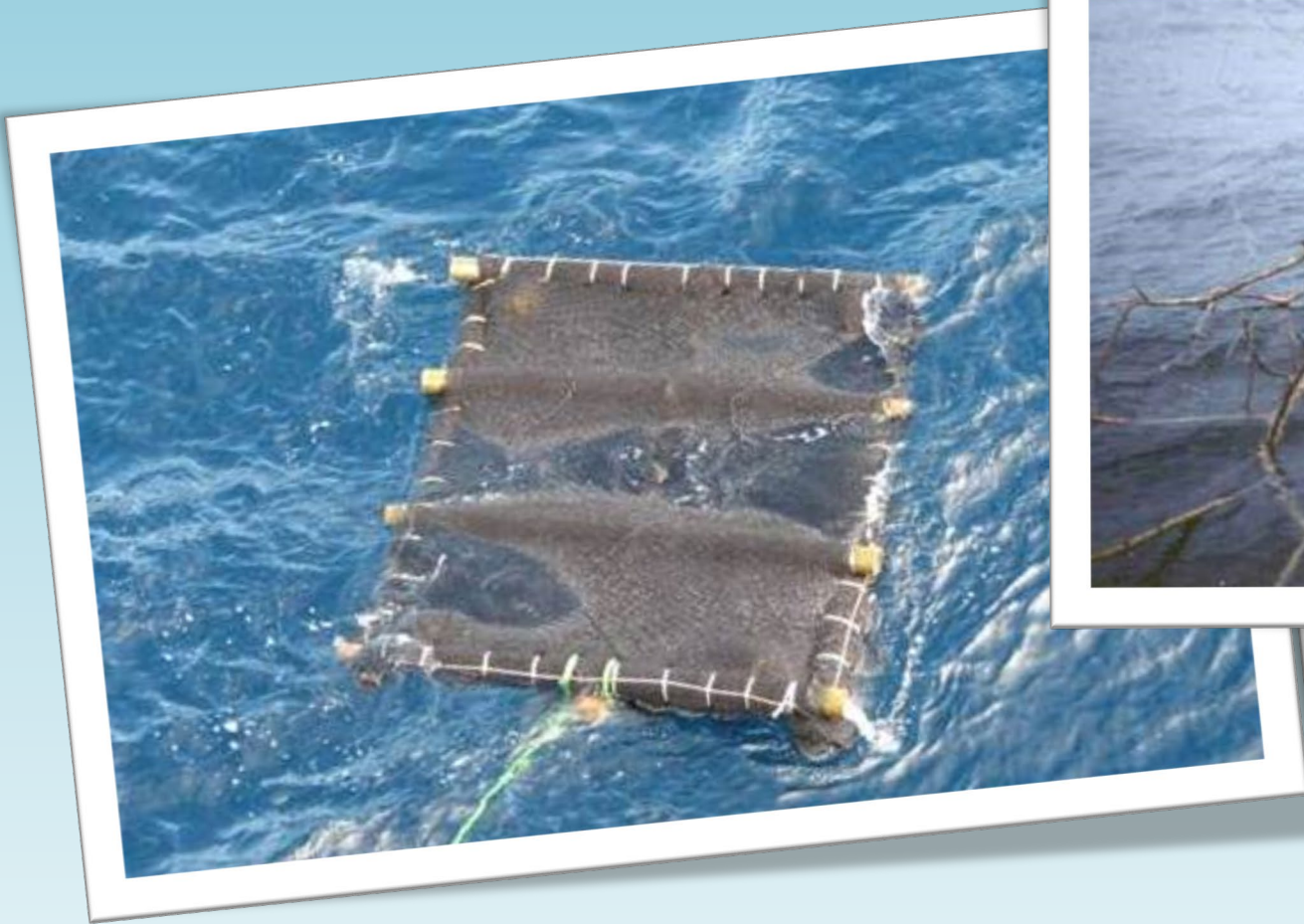
Western and
Central Pacific
Fisheries
Commission

BUOYS



BUOYS





Questions