Original: English/French/Spanish

ANNUAL FISHING / CAPACITY MANAGEMENT PLANS FOR TROPICAL TUNAS

This document contains the Annual Fishing / Capacity Management Plans for Tropical Tunas listed below that were received from CPCs. Some of these plans also include a FAD Management Plan, as indicated*.

CPC
BELIZE*
BRAZIL
CHINA (P.R.)
CURAÇAO*
EL SALVADOR*
EUROPEAN UNION*
GHANA*
GUATEMALA*
JAPAN
KOREA
MOROCCO
SENEGAL*
TRINIDAD AND TOBAGO*
CHINESE TAIPEI

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: BELIZE

Fishing Plan Year: 2021

1. Introduction

This Plan outlines Belize's involvement in the fishery of tropical tunas and more specifically bigeye tunas in the ICCAT Convention area and identifies its needs as a coastal State as well as its intention for its involvement in this fishery over the next three years.

1.1 Tropical Tuna Statement

Belize introduced its High Seas Fishing Act (HSFA) in 2003 to provide a legal framework for the regulation of the activities of its high seas fishing vessel. This Act was revised in 2013 and makes provisions for the adoption of and compliance with all conservation and management measures adopted by the relevant RFMOs for the protection of the high seas resources.

Pursuant to the adoption of the HSFA, 2013, Belize has also adopted Sanctions; Licensing; and Monitoring, Control and Surveillance Regulations. This regulatory framework promulgates the furtherance of various international treaties and arrangements that Belize has ratified including the FAO "Compliance Agreement"; the UN "Fish Stocks Agreement"; the FAO IPOA-IUU; and the United Nations Convention on the Laws of the Sea.

These actions formalize Belize's commitment to the elimination of activities which diminish the effectiveness of conservation and management measures. In addition to these regulations, Belize has adopted its National Plan of Action to prevent, deter, and eliminate illegal, unreported and unregulated (IUU) fishing on the high seas; a National Plan of Action for the Conservation and Management of Sharks on the High Seas; a National Plan for Reducing the Incidental By-Catch of Seabirds in Long Line Fisheries as well as a High Seas Fleet Management Policy and a National Inspection Plan. The FAO Guidelines on Sea Turtles has also been implemented.

Belize currently has 19 vessels engaged in the tropical tuna fishery in the ICCAT area of competence. This includes 10 longliners, 6 purse seiners and 3 support vessels and is representative of 41% of its operational high seas fishing fleet. While the purse seine vessels are engaged in directed tropical tuna fisheries, the longliners also target swordfish and albacore in addition to tropical tunas. As a result, this Administration has adopted a Quota Management Policy which outlines the implementation of a system for the allocation and management of quotas to vessels engaged in tropical tuna fisheries; and which this plan explains in detail.

2. Details of Fishing Plan

The Belize high seas fishing fleet which operates within the ICCAT Convention area, and which targets tropical tunas consist of two gear groups which target tropical tuna in the ICCAT Convention area. This comprises 10 longliners and 6 purse seiners and 3 support vessels as indicated in the table below. These vessels utilize almost 90% of our tropical tuna (BET) allowable catch.

Gear Type	*No. of Vessels*	*Tropical Tunas*			*Other Tunas*	
		BET	YFT	SKJ	ALB	SWO
Longline	10	√	√		√	√
Purse Seine	6	√	√	√		
Support	3					

2.1 Quota Allocation System and Management of Quotas

Since our membership with ICCAT and the allocation of our total allowable catches for the species regulated by ICCAT, Belize has implemented a quota allocation and management system. One of the important factors that are considered when allocating quotas is the total available catch that has been allocated to Belize for each species.

Belize's quota allocation and management system is simple and focuses primarily on adherence to the limits established by the relevant ICCAT recommendations. The quota allocation system summarized below is applicable to all vessels, inclusive of all gear types.

a) Once the total allowable catch for each species has been determined based on the relevant ICCAT recommendation for each species, a total allowable commercial catch is set for each vessel in accordance with individual applications made by a vessel owner.
b) Quotas are only allocated to those vessel owners having a valid high seas fishing license. Each vessel owner has the right to catch their quota or transfer it to another vessel which they own.
c) Quotas are allocated in metric tons and are allocated from the time of approval of application to the end of the current calendar year in which it is approved.
d) Any unused quotas allocated to a vessel owner cannot be transferred therefore operators must ensure full utilization. Any unused quotas shall be considered lost; however, a percentage of the unused quota may be considered for transfer only after careful consideration of the circumstances.
e) Any overharvest of allocated quotas is discouraged and is subject to a payback scheme by a reduced quota allocation of similar amount the following year or any other measures this Administration considers appropriate.
f) Annual quota renewal requests are considered upon submission of a new application and are approved based on the activities of the vessel, its previous utilization, and the availability of a catch allocation for relevant species.
g) Where there is no capacity/quota limitation by ICCAT for a species, this process still applies; except for internal catch limits which this Administration establishes for these species.
h) Vessel owners are required to report their catches monthly via a specified catch reporting form. Vessel owners are also required to have on board a bound logbook for the recording of their catches. There is also an electronic logbook on board each vessel and operators are also required to complete this catch reporting format daily.
i) Quotas once allocated are tracked and once the vessel has utilized over 50% of their allocation a notice is sent to the vessel operators advising that they have reached their halfway mark. Once 80% of quotas has been utilized another notice is sent with a warning regarding overharvesting.
j) Where total utilization of quotas has occurred, vessel operators are instructed to return to port.

It should be noted that Belize makes allocations for any overharvest or by-catches by their vessels by ensuring that 10% of its total allowable catch is reserved for contingency.

2.2 Vessel Monitoring

Belize's VMS requirements are in accordance with the specifications required by ICCAT for vessel monitoring. All Belize licensed high seas fishing vessels are required to have a satellite-based vessel monitoring system installed regardless of size limits. The VMS is tamper-proof and all mobile transceiver units installed on board the vessels are required to continuously report the vessel's identification, the geographic position of the vessel (longitude and latitude) with a margin of error lower than 500 meters and a confidence level of 99%, and the date and time on an hourly basis. The VMS also includes features such as geo fencing for RFMO areas, restricted fishing areas or areas of interest, designated port areas, fisheries closure zones as well as EEZ zones. Additionally, it features electronic catch reporting capability.

2.3 Observer Coverage

Belize has contracted the services of Capricorn Fisheries Monitoring Cc (CAPFISH) to provide observer services for the fulfilment of ICCAT observer coverage requirements for its vessels. Deployments are carried out in accordance with the recommendation of ICCAT.

3. Expansion of capacity in 2021

There has been a reduction in the fleet size targeting tropical tunas for 2021. Belize intends to recruit new vessels to replace those vessels that have been removed from our fleet; however, it does not intent to expand the capacity for the harvesting of bigeye tuna.

4. FAD Management Plan

4.1 Introduction

4.1.1 Scope

This Plan sets out the methods and measures that the Belize High Seas Fisheries Unit (BHSFU) will use to standardize the use of Fish Aggregating Devices (FAD) for various purposes including limiting fishing mortality on vulnerable tropical tuna species such as juvenile bigeye, yellowfin and skipjack tuna.

Fundamentals of this Plan apply to Belize flagged purse seine vessels operating on the High Seas. Unless otherwise indicated, references to fishing or fishing vessels apply to purse seine fishing vessels and/or group purse seine fishing vessels and their support vessels.

4.1.2 Legal Status

In the first order, this FAD Management Plan represents the strategy of the BHSFU and does not have legal effect. It is the aim of the BHSFU to introduce specific features of the Plan through various means in the short term which may contain permit conditions and legally binding Fishing Vessel Circulars.

In the long term, this Plan will be reviewed according to further developments, such as to ICCAT Recommendation 19-02. Specific Regulations will be introduced to give legal effect to the Plan.

4.1.3 Objective

The objectives of this FAD management plan include, inter alia:

a) Reinforce the gathering of scientific data;
b) Decrease the catch of bycatch of small tunas on FADs;
c) Effectively manage the deployment and retrieval of FADs;
d) Limit the number of FADs deployed

4.2 Description

4.2.1 Definition and Types of FADs

For the purpose of this Plan, the following definitions shall apply:

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

Fish Aggregating Device (FAD) is any permanent, semi-permanent or temporary object, structure or device of any material, manmade or natural, which is deployed, and/or tracked, and used aggregate fish or subsequent capture. FADs can either be anchored (aFADs) or drifting (dFADs).

FAD set is setting a fishing gear around a tuna school associated with a FAD.

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

Activation is the act of enabling satellite communication services by the buoy supplier company at the request of the buoy owner. The owner then starts paying fees for communication services. The buoy can be transmitting or not, depending if it has been manually switched on.

4.2.2 FAD Limits

Purse seine vessels that are licensed in accordance with Belize's High Seas Fishing Act, 2013 may deploy and use FADs. The total number of FADs that may be deployed shall not exceed 300 FADs per vessel at any one time for the period from January 1, 2021 to December 31, 2021. The total number may be reviewed on a case by case basis and depending on the vessel size.

The deployment of FADs in the EEZ of other States are outside the restrictions imposed by this management plan and shall be in accordance with the laws of that State.

4.2.3 Consideration of interaction with other gear types

In reference to possible conflict between purse seine fishing and the long line fleet which may result from the wide range use of FADs in the purse seine fishery, the situation will be monitored. Specifically, data will be gathered on the operation of the tuna long line fleet as it continues to grow and on the characteristics of purse seine catches as determined through our observer program. Any unfavorable impacts resulting from FAD fishing or FADs having obstructed the operation of the longline fleet will result in this policy being reviewed should such impacts be clearly established.

4.2.4 By-Catch Policy

Vessel owners/operators in the purse seine FAD fishery shall be required to submit information on the by-catch taken during fishing operations by species, estimates of volume or estimate of number of fish in catches. This shall be reported through the catch log sheets.

If the by-catch taken is utilized in any way, it is required that the operator submit a report on the disposition of the by-catch on a species-by-species basis.

The Belize High Seas Fisheries Unit through its observer program shall monitor the by-catch in the FAD tuna purse seine fishery with a goal of establishing the average weight of species make-up of by-catch.

4.2.5 FAD Ownership

This Plan does not generate any property rights over FADs or fish that may aggregate to them. No exceptionality of access is considered when a particular vessel deploys a FAD in accordance with this Plan.

5. Institutional Arrangement

5.1 Institutional responsibilities for the FAD Management Plan

The Belize High Seas Fisheries Unit, under the Ministry of Finance is the competent authority responsible for the development and implementation of this FAD Management Plan.

5.2 Application process for FAD deployment approval

Vessel owners/operators shall provide prior notice to the Belize High Seas Fisheries Unit of their intention to deploy FADs. The information to be provided shall include:

i. Location in latitude and longitude,
ii. Date of deployment,
iii. New or replacement FAD,
iv. FAD number assigned.

All FAD deployment, for new or replaced FADs shall be witnessed and documented by an observer approved by the BHSFU.

5.3 FAD replacement Policy

The owners/operators shall notify the Belize High Seas Fisheries Unit before any lost FADs are replaced and a report from an observer shall be required as testimony of the replacement of the FAD. Replacement of FADs shall be deployed with a new identification number in accordance with this Plan.

5.4 Additional reporting obligations

Location of FADs and reporting

Owners/operators of tuna purse seine FAD fishery should submit quarterly list of FADs deployed. The list should provide, at a minimum, position of each FAD in terms of latitude and longitude, date of deployment and identification of lost FADs. This list should be submitted no later than 30 days after the preceding quarter has ended.

Monitoring of the FAD Fishery

Catch data shall be collected from all purse seine vessels based on the use of FADs in order to monitor the species make-up of tunas and other information of the FAD associated catches.

Reporting requirements for FAD fishing

Owners and operators that utilized FADs in their fishery shall comply with the reporting requirement as set out in this Plan and other legally binding circulars and submit information on their catches.

Owners/operators involved in FAD fishery shall be required to carry on board fisheries observers to monitor their fishing activities, FAD deployment operations, supply and mothership activities up to 100%.

5.5 Conflict Resolution in relation to FADs

Any conflict arising between the operators in the purse seine FAD fishery shall be referred to the Director of the Belize High Seas Fisheries Unit and where a resolution cannot be made then the matter shall be taken to the Registrar of Ships in accordance with Belize's High Seas Fishing Act, 2013 and subsidiary regulations, and whose decision shall be final.

5.6 Details of any closed areas or periods

This section of the Plan describes the provisions that will be applied to Belize flagged purse seine fishing vessels operating in the high seas in accordance with ICCAT's Guidelines for the Preparation of FAD Management Plan as contained in ICCAT Recommendation 19-02.

The requirements below will be endorsed via conditions of fishing licenses issued to relevant vessels until such time as this Plan is reflected in Belize's Regulations.

All Belize flagged purse seine fishing vessels operating in the high seas and any other jurisdictions utilizing FAD in the ICCAT Convention area will be required to observe the Area/Time closure in relation with the protection of juveniles as contained in the relevant Recommendation 19-02 from January 1 to 28 February 2020 and 1 January to 31 March 2021.

The prohibition outlined above includes but is not limited to:

- Launching any floating objects, with or without bait;
- Fishing around, under, or in association with artificial objects, including vessels;
- Fishing around, under, or in association with natural objects;
- Towing floating objects from inside to outside the closure area.

Vessels fishing on unassociated 'free schools' shall be required to have an authorized observer on board for the duration of their fishing activities within the area/time closure.

5.7 Requirements for Deploying FADs

The deployment of any FADs during the FAD closure periods specified above is strictly prohibited. At any other times, deployment must be directed in accordance with the requirements below.

Consistent with para 37 of ICCAT Recommendation 15-01, all Belize flagged purse seine fishing vessels operating on the high seas during the area/time closure specified above will be subject to 100% observer coverage under the ICCAT Scientific Observer Program. Observers will monitor all FAD deployments of all surface fishing vessels 20 meters LOA or greater fishing tropical tunas in the area/time closure referred to above.

No FAD shall be deployed unless prior authorization from the BHSFU is granted and which shall be reliant on:

i. Provision of all the information above; and
ii. The number of FADs already deployed by the vessel

The BHSFU shall not authorize the deployment of a FAD if records show that the FAD limit would be surpassed by the relevant vessel.

6. FAD Construction, Specification and Requirements

6.1 FAD Marking

Deployed drifting FADs must be clearly marked as follows:

a) With the raft section clearly painted with reflecting paint so that it can be seen from a distance of 1 kilometer;
b) The raft section should support a radar reflector that must be suspended at least 2 meters above the waterline of the raft;
c) With the name of the vessel that has deployed it;
d) The FAD number;
e) Electronic devices such as transponders and radio beacons which mechanically and constantly indicate their location by way of signals may be used in addition to other devices but should not be activated at radio signals that could clash with other devices used for navigation and search and rescue purposes.

The name of the vessel and FAD number shall be contained on a removable plate such that in the event that FADs are changed, the plate can be connected to the new FAD ensuring that the same FAD number corresponds to the same deployment location in terms of latitude and longitude.

The marking of the FAD above must be in lettering at least 30 cm high and of a color that contrasts with the color of the plate. The plate must be connected to a point on the FAD where it is clearly noticeable.

The FAD number is to be allocated by the vessel master and shall be the first three letters of the vessel name followed by a two digit number (which shall be sequential according to the number of FADs deployed in the high seas), followed by the letters "HS" to indicate deployment in the high seas. For example:

Vessel Name: RANDOM
FAD ID: RAN01HS

6.2 FAD Design and Construction

In order to minimize the ecological impact of FADs, in particular the entanglement of sharks, turtles and other non-target species, and the release of synthetic persistent marine debris, all deployed man-made FADs must meet the following minimum criteria:

i. The surface structure of the FAD should not be covered or only covered with material implying minimum risk of entanglement by-catch species and should be constructed such that they can be easily located at their place of deployment.
ii. The sub-surface components should be exclusively composed of non-entangling material (e.g. ropes or canvas).
iii. The use of biodegradable materials should be prioritized in the designing of FADs.
iv. The design should include an appropriate number of counterweights along the synthetic rope to ensure that it sinks to the bottom in the event that the floater becomes detached and drifts away.
v. The design and maintenance of FADs shall be the responsibility of the owner/operator deploying the FADs

6.3 Replacing Lost FADs

The vessel master shall notify the BHSFU that a FAD has been permanently lost by providing the following information:

i. The date of last sighting of the FAD;
ii. The location (latitude and longitude) recorded in degrees and minutes of last sighting;
iii. The FAD number; and
iv. FAD Construction material.

The BHSFU will review this information and may grant approval to deploy a replacement FAD depending on the situations.

6.4 Requirement for Retrieving FADs

Consistent with ICCAT Recommendation 15-01, all Belize flagged purse seine fishing vessels operating on the high seas during the area/time closure will be subject to 100% observer coverage under their Scientific Observer Program. Observers will monitor all FAD retrievals.

The vessel master must supply the following data in writing to the BHSFU:

i. The date of retrieval;
ii. The location (latitude and longitude) recorded in degrees and minutes of retrieval; and
iii. The FAD number.

7. Applicable Period for FAD Management Plan

This plan is applicable for a period of 1 year from date of issuance.

8. Monitoring and Review of the Implementation of FAD Management Plan

This FAD Management Plan shall be reviewed every year and may be amended at any time as deemed necessary. The next review is scheduled for January 2022.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET									
	Number of Vessels					**Total Estimated Capacity**			
TYPE	***2018***	***2019***	***2020***	***2021***	*Estimated best catch rate per unit*	***2018***	***2019***	***2020***	***2021***
Purse Seiner over 40m	6	7	8	6	BET allocation	200-400 t	200-400 t	200-400 t	50-400 t
Purse seiner between 20 and 40m									
Purse seiners less than 20m									
Long liner over 40m	3	4	0	0	BET Allocation	100-200 t	100-200 t	0 t	0 t
Long liner between 20 and 40m	9	10	11	10	BET Allocation	30-50 t	30-50 t	30-50 t	30-50 t
Long liner less than 20m									
For Capacity Expansion									
Bait boat									
Support Vessels	0	4	4	3					
Other gears (specify)									
Total fishing capacity	18	25	23	19					
Catch Limit	2018	2019	2020	2021					
Initial catch limit	3500	3500	1598*	1598					
Quota transfer made (if applicable)	Not applicable								
Quota transfer received (if applicable)	Not applicable								
Total adjusted quota (if applicable)	3500	3500	1598	1598					

* 2014-2017 average catch less 10% equals 1598 m/t

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS

Name of CPC: Brazil

Fishing Plan Year: 2021

1. Introduction

Brazilian Fishing Plan for tropical tunas, in conformity with Paragraphs 20, 21 and 22a, of Rec. 19-02.

2. Details of fishing plan

2.1 How Brazil will implement any catch reductions necessary as a result of paragraph 4 (Ref. Rec. 19-02/ Par. 20)

According to Paragraph 4.b, CPCs that have a recent average catch greater than 3,500 t, shall apply a catch limit that is 17% less than their recent average catch for the 4-year period 2014-2017. Brazilian catches from 2014 through 2017 were, respectively: 6456 t, 7750 t, 7660 t, and 7258 t, resulting in an average of 7281 t, which reduced by 17% equals 6043 t. From November 2018 to December 2019, Brazil already adopted the following normative measures to ensure this limit is respected:

09/11/2018: Portaria interministerial 59A

- Prohibits the use of FADs to fish for tunas;
- Prohibits fishing in the vicinity of oceanographic buoys at distances less than 200m;
- Prohibits tying the fishing boat to oceanographic buoys;
- Makes the use of VMS mandatory to all boats fishing for tunas larger than 10 m (to be enforced on 11/09/2019);
- Limits the number of boats authorized to fish with handline in associated schools to 250, with the process of establishing the new license and licensing all the interested boats to be completed within one year (until 11/09/2019);
- Makes the authorization to fish for tunas with handline in associated schools exclusive, i.e. boats that are authorized to fish with such a permit cannot have any other fishing license;
- Limits the amount of bycatch of boats authorized to fish with handline in associated schools to 20% of the total catch (it prevents using the fishing license to other fishing modalities);
- Establishes the obligation for all fishing boats authorized to fish for tunas and tuna-like species to land their catches in specifically authorized ports.

09/05/2019: Portaria SAP/MAPA 89

- Prohibits the emission of any new fishing licenses, including licenses for building new fishing boats, for any modality of fishing methods targeting tunas or tuna-like species, except boats authorized to fish with handline (already frozen at 250, by Portaria 59A).

04/11/2019: Portaria 5.174

- In response for a call to boat owners to issue a specific license to fish for tunas by handline in associated schools (Normative Instruction 44), the Brazilian Government authorized only 184 fishing boats, a number that is about HALF of the present fleet of 300 boats.

So, Brazil has already frozen the number of longliners at the level of May 2019, by Portaria SAP/MAPA 89, and the number of boats authorized to fish with handline at 250 (although only 184 were authorized), by Portaria Interministerial 59A. Due to all the measures already adopted by the Brazilian Government since 2018, Brazilian catches of bigeye tuna were reduced from 7.258 t, in 2017, to 5.096 t, in 2019, a reduction of 30%. The expected landings for 2019 and 2020 should, therefore, be around 6,000 t, within the limit provisionally established for Brazil, for 2020. In case the quota of 6,043 t is reached before the end of the year, the fishery for bigeye tuna will be suspended for the remainder of that year.

2.2 Statement of Brazil development intentions for tropical tunas, informing other CPCs of potential changes in the fishery over time (Ref. Rec. 19-02/ Para 21, 22a)

Brazil has the firm intention to develop its fishery for tropical tunas, mainly by expanding its artisanal fishery with handline, in a progressive and gradual manner, in conformity with international law.

Starting with the United Nations Convention on the Law of the Sea (UNCLOS), Article 116, on the rights to fish on the high seas, which establishes that all States have the right that their nationals engage in fishing, but subject to, *inter alia*, the rights and duties as well as the interests of coastal States. In Article 119, on the conservation of the living resources of the high seas, UNCLOS states that in determining the allowable catch and establishing other conservation measures for living resources in the high seas, States shall take measures which are designed, on the best scientific evidence available to the States concerned, to maintain or restore populations of harvested species at levels which can produce the maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing States. The same article also requires the States concerned to ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any State.

In the United Nations Fish Stock Agreement, there is an entire section, Part VII, on the special requirements of Developing States, including Article 24, obliging States to take into account, in particular, the vulnerability of developing States which are dependent on the exploitation of living marine resources, including for meeting the nutritional requirements of their populations; the need to avoid adverse impacts on, and ensure access to fisheries by subsistence, small-scale and artisanal fishers and to ensure that conservation and management measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States. In Article 25, it requires all States to cooperate, *inter alia*, to enhance the ability of developing States, to conserve and manage straddling fish stocks and highly migratory fish stocks and to develop their own fisheries for such stocks; and to enable them to participate in high seas fisheries for such stocks, including facilitating access to such fisheries. That article is reiterated in Article 5 of the FAO Code of Conduct for Responsible Fisheries, which, in its Article 7, also calls upon States, when adopting conservation and management measures, to take into account the interests of fishers, including those engaged in subsistence, small-scale and artisanal fisheries. The FAO Conference, in its resolution adopting the Code, also URGED all States, in implementing its provisions, to take into account the special requirements of developing countries.

In 2014, the FAO Committee on Fisheries adopted the Guidelines for Securing Sustainable Small-Scale Fisheries, which, among over a hundred paragraphs recognizing the importance of small-scale fisheries to food security and poverty alleviation, calls upon States to adopt measures to facilitate equitable access to fishery resources for small-scale fishing communities, including, as appropriate, redistributive reform.

In the United Nations General Assembly Resolution 66/288, on the Future we Want, United Nations Member States not only urged the identification and mainstreaming of strategies that further assist developing countries, in developing their national capacity to conserve, sustainably manage and realize the benefits of sustainable fisheries, but also committed themselves to observing the need to ensure access to fisheries and the importance of access to markets by subsistence, small-scale and artisanal fisherfolks and their communities, particularly in developing countries. More recently, member States of the United Nations agreed on the Sustainable Development goals, requiring States, in Goal 14b, explicitly to provide access for small-scale artisanal fishers to marine resources and markets, a requirement that was just reiterated by the 33rd FAO Committee on Fisheries, as reflected in Paragraph 66, of the report of the meeting that happened in July, last year.

Finally, in the ICCAT Criteria for the Allocation of Fishing Possibilities, the Commission agreed, when allocating fishing possibilities, to take into account: 7) The distribution and biological characteristics of the stock(s), including the occurrence of the stock(s) in areas under national jurisdiction and on the high seas; 8) the interests of artisanal, subsistence and small-scale coastal fishers; 9) the needs of the coastal fishing communities which are dependent mainly on fishing for the stocks; and 11) the socio-economic contribution of the fisheries for stocks regulated by ICCAT to the developing States.

All the legal background provided above, therefore, make the priority treatment that should be given to small-scale fisheries and developing coastal States very clear. A priority that has also been already recognized in Rec. 19-02, paragraph 6[1]. There are many solid reasons for that. One of them is the lack of a strong domestic market that makes developing nations much more vulnerable to unilateral trade sanctions, like the one Brazil is presently suffering, unjustly and unfairly, due to technical allegations. Brazil has been prohibited to export not only seafood from capture fisheries, but all seafood, including from aquaculture activities, to the European Union. In the case of small-scale fisheries, their vulnerability is also directly linked to their lack of mobility, differently from large industrialized fishing vessels that can easily move from one region to another, even between different oceans, as indeed happens quite often. Fishing communities cannot move that way and depend ultimately on the fishery resources they fish for food security. By giving priority to small-scale fisheries we are, therefore, protecting livelihoods, not profits.

Presently, bigeye tuna quotas are distributed mainly among developed nations with industrialized fisheries, in a way that is not only unfair and unequitable, but also not in conformity with international law. Brazil is prepared to accept the history of catch, as established in Rec. 19-02 (2014 through 2017)[2] as one of the criteria for quota allocation, but if, and only if, the criteria related to the presence of the stock in the EEZ of the country, i.e. whether the CPC is coastal or not, the nature of the CPC, i.e. whether it is developing or not, and the nature of the fishery, i.e. whether it is artisanal/ small scale or not, to a minimum, also be taken into account. With the quota redistribution that should happen from the observance of international law, Brazil has the intention to expand its bigeye tuna fishery to a level close to 10,000 t, although understanding this expansion should be achieved in a gradual manner, in a way compatible with the quota redistribution, in conformity with international law.

[1] Small scale artisanal fishers shall be given special consideration to their specificities and needs.
[2] The annual average catch for the 4 year period 2014-2017 or the average of real catches for the 5-year period 2014-2018 if in that period the catch was equal to zero in any of those years.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels						*Total Estimated Capacity*			
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m											
Purse seiner between 20 and 40m			2	3							
Purse seiners less than 20m											
Longliner over 40m											
Longliner between 20 and 40m	37	38	37	37							
Longliner less than 20m	18	18	18	18							
For Capacity Expansion											
Baitboat	31	30	30	30							
Other gears (specify)											
LLSURF	48	48	48	48							
HANDLINES	227	227	227	250							
Total fishing capacity											
Quota											
Initial quota			6,043 t	6,043 t							
Quota transfer made to XXX (if applicable)											
Quota transfer received from XXX (if applicable)											
Total adjusted quota (if applicable)											

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS

Name of CPC: CHINA

Fishing Plan Year: 2021

1. Introduction

Both China's BET recent average catches and its catch limit in Rec. 19-02 is more than 1000 t, thus it is necessary for China to produce an annual capacity/fishing plan according to Rec. 19-02.

China will maintain its fishing vessel number to recent average levels and will not increase its fishing capacity dramatically given the limited catch quotas, and thus make its fishing capacity equivalent with its fishing opportunities. China only has longline fishery in the Atlantic Ocean targeting BET and no other fishing gear. According to statistics in the past, longline fishing vessels targeting BET have only few catches of yellowfin and basically no catch of skipjack.

Each year, by issuing a governmental document, the total BET catch quota will be divided and allocated equally to each BET fishing vessel, including by-catch quotas (SWO, ALB, etc.), if any. In doing so we can monitor, through the onboard observer program, logbook, monthly catch report, catch documentation program, etc., that each of the fishing vessels complies with its allocated catch quota. If any over-harvested quota happens, then we will definitely pay back such overage according to BET recommendation and impose a penalty on such vessel and its owner. Actually, we never overharvested the BET quotas in the past several years. In addition, we always comply with the rule of BET monthly/quarterly catch report since its inception as well as all the other reporting requirements.

We will implement a scientific observer program according to our National Observer Program to make sure the minimum observer coverage is satisfied, the observer is trained and, among others, all the necessary datas required by the Recommendation are collected.

We can monitor our vessels and poll their positions whenever we want and is necessary. From this year, we have increased the polling rate to 24 positions per day which is much higher than the ICCAT VMS recommendation.

2. Details of fishing plan – For those with >1,000 t *average catch*

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits* and Catch reductions (Part II)**	According to the catch limit in para 3 of Rec. 16-01, China's BET quota falls into the category of (b) of para 4 in Rec. 19-02, that is 17% redeuction of its catch limit in para 3 of Rec. 16-01, plus the quota transfer from Japan and the transfer of underage from 2019.	Circular issued by General Office of Ministry of Agriculture and Rural Affairs on further strictly complying with conservation and management measures adopted by tuna-RFMOs.	

2.	**Capacity Limits (Part III)**	China only has longline fishery in the Atlantic Ocean, the fishing vessel number will maintain the recent average levels so as to make its fishing capacity commensurate with its fishing opportunities.	Circular issued by General Office of Ministry of Agriculture and Rural Affairs on further strictly complying with conservation and management measures adopted by tuna-RFMOs.	
3.	**Management of FADs **and FAD Closure(s)(Part IV)**	Not applicable as China has no purse seine fishery.	Not applicable as China has no purse seine fishery.	
4.	**Control Measures, including planned trials of electronic observers (Part V)**	China's control measures including: national observer program, VMS, logbook, Monthly catch report, BET statistics certificate, etc. Currently, China has not conducted E-monitoring program in the Atlantic Ocean fishing vessels, but we indeed implemented a trial program in the Pacific Ocean fishing vessels.	Circular issued by General Office of Ministry of Agriculture and Rural Affairs on further strictly complying with conservation and management measures adopted by tuna-RFMOs. Implementation Guideline on the Management of Distant Water Fishery National Observer Programme. VMS program.	
5.	**Other information / measures to be taken**			

3. Planned an expansion of capacity in 2020- for those with <1,000 t average catch

Not applicable as China's average catch is more than 1000 t.

4. FAD Management Plans (if applicable)

Not applicable as China has no purse seine fishery.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels					*Total Estimated Capacity*				
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m											
Purse seiner between 20 and 40m											
Purse seiners less than 20m											
Longliner over 40m	32	32	34	34							
Longliner between 20 and 40m											
Longliner less than 20m											
For Capacity Expansion											
Baitboat											
Other gears (specify)											
Total fishing capacity											
Quota											
Initial quota	5376	5376	4462.08	4462.08							
Quota transfer made to XXX (if applicable)											
Quota transfer received from XXX (if applicable)	1000 (from Japan)	1000 (from Japan)	600 (from Japan)	600 (from Japan)							
Total adjusted quota (if applicable)	7182.4	7182.4	5731.39	5599.68[1]							

[1] Adjusted quota for 2021=initial quota (4462.08) + 5376*10% + 600 t transfer from Japan = 5599.68.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: CURAÇAO

Fishing Plan Year: 2021

1. Introduction

2. Details of fishing plan – For those with >1,000 t *average catch*

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and Catch reductions (Part II)**	The Fishery Monitoring Centre monitors monthly the catches of the vessels under the flag of Curacao. By reaching 80% of the limit, the vessels will be advised and monitored closely not to overshoot the quota.	The relevant Fishery law is Fishery Ordinance of 1993 P.B. no 74.	The instructions must be turned into a decree according to the fishery ordinance.
2.	**Capacity Limits (Part III)**	The fleet is limited to five purse seiners and there are no current plans to increase.	The relevant Fishery law is Fishery Ordinance of 1993 P.B. no 74.	The new instructions must be turned into a decree according to the fishery ordinance.
3.	**Management of FADs and FAD Closure(s)(Part IV)**	Curacao shall ensure that for vessels flying their flag the following limits shall apply on the number of FADs with instrumental operational buoys at any one time according to definitions given in paragraph 26. The number of FADs with operational buoys will be verified through the verification of the transmissions of every buoy assigned to each of the vessels according to the telecommunications provider. Such verification shall	The relevant Fishery law is Fishery Ordinance of 1993 P.B. no 74.	The new instructions must be turned into a decree according to the fishery ordinance.

		be conducted by the FMC: a) 2020: 350 FADs per vessel b) 2021: 300 FADs per vessel FAD closure is being monitored by observers		
4.	**Control Measures, including planned trials of electronic observers (Part V)**	Curacao has already 100% control. Electronic Monitoring testing started in 2020 and will continue during 2021. The fleet has 100% physical or electronic observer coverage all the year.	The relevant Fishery law is Fishery Ordinance of 1993 P.B. no 74.	Since 2015 Curacao has 100% Monitoring on all vessels.
5.	**Other information / measures to be taken**	The maximum quantity of fishing vessels in ICCAT will stay the same in 2020 and 2021.		This is in the Fleet Policy of Curaçao.

4. FAD Management Plan

See attached plan.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
	Number of Vessels						*Total Estimated Capacity*				
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m	5	5	5	5		0	5	5	5	5	0
Purse seiner between 20 and 40m	-	-	-	-	-	-	-	-	-	-	-
Purse seiners less than 20m	-	-	-	-	-	-	-	-	-	-	-
Longliner over 40m	-	-	-	-	-	-	-	-	-	-	-
Longliner between 20 and 40m	-	-	-	-	-	-	-	-	-	-	-
Longliner less than 20m	-	-	-	-	-	-	-	-	-	-	-
For Capacity Expansion	-	-	-	-	-	-	-	-	-	-	-
Baitboat	-	-	-	-	-	-	-	-	-	-	-
Other gears (specify)	-	-	-	-	-	-	-	-	-	-	-
Total fishing capacity											
Quota											
Initial quota	3.500	3.500	2.558,87	2.558,87	-	-	-	-	-	-	-
Quota transfer made to XXX (if applicable)	-	-	-	-	-	-	-	-	-	-	-
Quota transfer received from XXX (if applicable)	-	-	-	-	-	-	-	-	-	-	-
Total adjusted quota (if applicable)	3.500	3.500	2.558,87	2.558,87	-	-	-	-	-	-	-

FISH AGGREGATING DEVICE MANAGEMENT PLAN FOR VESSELS FLAGGED IN CURAÇAO

1. Background

According to the fisheries management policies that Curaçao has been traditionally carrying out in order to assure the sustainable management of the fishing resources in general; also considering that the control of fishing effort is a necessary issue in the ICCAT area; and with the aim to guarantee the sustainability of the target and by-catch populations of species related to tuna fisheries, the following Fish Aggregating Device[1] Management Plan is hereby established.

2. Objectives

- To provide a scientific basis for the approval of measures that guarantee the rational use of FADs in the tuna fisheries of the Atlantic Ocean.

- To widen the technical knowledge of these devices and of their eventual positive or negative impact on the ecosystems.

- To develop joint information exchange schemes between operators, scientists and administrations to facilitate the communication of any progress made in this field and the implications it could have.

- To improve the knowledge on the composition of species and sizes to be found in the sets made on FADs.

3. Application field

This Management Plan applies to the tuna purse seiner vessels licensed to fish in the Atlantic Ocean as defined in the annual plan.

4. Definitions

Fish Aggregating Device (FAD):

Floating objects, either natural or man-made, which gather some species underneath, thus making those species more accessible to their search and subsequent catch by fishing vessels.

FAD types:

- Anchored FADs: those that are artificially fixed to the bottom of the sea preventing them from drifting; these include the support vessels anchored at an underwater mountain.

- Drifting object with a net: those non anchored FADs composed of either a continuous panel or one in the shape of a grill, which is associated to a hanging piece of net or rope, which serves as a sail under the sea.

- Drifting object without hanging materials: those non anchored FADs composed of either a continuous panel, or one in the shape of a grill.

- Natural FADs: any floating object found at sea, such as vegetable waste, dead animals or debris of human origin used as a FAD.

- Other drifting FADs: any FAD that differs from the above-mentioned.

[1] Hereinafter referred to as FADs.

- Instrumented FAD: any of the above when monitored remotely through the use of a tracking device (buoy).

Activities related to FADs:

- Deployment: The activity that involves the deployment of any given FAD at sea.
- Checking: The fishing activity that involves the monitoring of the previously deployed FADs to carry out maintenance tasks or verify the fish gathering underneath the device.
- Set: The fishing operating to catch the fish schools associated to a FAD.
- Collection: The fishing activity that involves the recovery of a FAD from the sea.

Buoy types:

- GPS buoy: A buoy equipped with a GPS system for satellite monitoring.
- Radio buoy: A buoy equipped with a radio system.
- Visual buoy: A buoy equipped with no electronic system, only identifiable at sight.
- Oceanographic buoys: buoys used for oceanographic research.

5. Identification of FADs

Each FAD to be deployed must be previously assigned a sequence of characters that will identify it. That sequence must be maintained during its lifetime.

Identification of each FAD will be preferably done through the unique buoy identifier assigned by the buoy provider. However, operators might propose other alternative identification systems for the consideration of the Administration, provided that the sequence assigned remains individual and unique for each FAD.

Depending on the results obtained by the application of the present Plan, this Administration could, if needed be, establish common and compulsory marking system for all the FADs used by the fleet flagged in Curaçao.

6. Register and communication of FAD related information

6.1 Inventory

As an initial measure, by 31 December 2012 all operators must deliver to the Ministry of Economic Development a list of the operative FADs used by the fleet before that date.

The list must include the information requested in Annex I for each FAD, and be updated at least on a quarterly basis.

The objective of this inventory is to provide all possible information on the characteristics of the FADs in use. It also aims to provide the scientific community with an analysis of the logbook entries derived from the individual identification of each FAD.

6.2 Specific Activity Registry

Operators must keep a Registry that includes all activities related with FADs (FAD Logbook).
The information to be incorporated in this registry is included in Annex II.

In the event of using a natural FAD, operators must also register this information, assuming by "deployment" the assignment of a buoy and as "collection" its removal. If this FAD is intended to be of further use, its information must be included in the inventory already mentioned in the previous chapter.

Whenever a fishing or auxiliary boat carries out any given activity which is related to a FAD that originally did not belong to that ship, all information regarding this activity must still be registered. In these cases, the box that contains the identification of the FAD must be filled with the word "external", along with a visible character sequence that leads to the identification of the FAD.

Lastly, for each activity carried out on a FAD, all events related to by catch must be recorded, including the following data: species, number of individuals and number of individuals which were set free alive.

This Registry of Activity must be delivered to the competent Authorities at least on a quarterly basis.

6.3 Logbook entries

Apart from the specific record mentioned in the previous section, Masters must continue to record in the logbook the following information related to the activity over FADs:

- Set on FADs: position, date, identification and results must be indicated.
- As stated in the previous point, all the sets made on FADs not originally belonging to the fishing vessel, as well as set made on natural FADs which are to be included in the inventory, must be duly recorded in the logbook.
- Catches associated to marine mammals, whale sharks, underwater mountains, or any element that could contribute to gather fish (such as dead animals, concentration of random materials, etc.) have to be recorded as well. The aim is to provide the most complete possible information about the set made, including position, date and result of the set.

7. FAD monitoring

The vessels must, to the extent possible, keep the monitoring information for each FAD that carries a satellite buoy. Such information must be linked to the ID number assigned to that particular FAD.

8. Measures to avoid the loss of FADs

The operators of the vessels must avoid as much as possible the loss of FADs at sea.

In case of loss or impossibility to recover any given FAD (i.e. those that fall in areas or periods closed for the fishing) operators must record in the Specific Activity Registry its last known position and date.

9. Measures to mitigate the catch of juvenile and non-target species

The use of the most selective methods to avoid the catch of juvenile and associated species will be encouraged. These might include, among others, size-sorting grids incorporated in the purse seine nets.

Along with that, the use of acoustic systems (such as echo sounders) will also be encouraged. They should help to avoid the catch of non target species or sizes, allowing their identification before the set is made.

Research related to mechanisms that provide an alternative to net pieces hanging below the FADs will be promoted, so as to endeavor that all FADs deployed are no entangling. These systems should avoid the entangling of marine species, especially turtles, by using different materials or smaller nets, in order to minimize their negative impact.
Vessel shall also develop new FAD prototypes made of biodegradable materials.

10. Specific closures on FAD fisheries. ICCAT Recommendation 19-02

FAD closure

During the FAD closure period established by ICCAT Rec. 19-02, fishing activities, or those in support of them, which are related to bigeye and yellowfin tuna, and are also associated with floating objects (including FADs), are forbidden, as follows:

- From 1 January to 28 February in 2020, and from 1 January to 31 March in 2021.
- Throughout the Convention area.

The prohibition includes any activity related to FADs, that is to say, deployment, checking, set or collection, or any other activity related to FADs, as follows:

- The deployment, checking, set or collection of any floating object, with or without buoys;
- Fishing around, under or in association with artificial objects, including vessels;
- Fishing around, under or in association with natural objects, and
- Towing floating objects located inside the area to a position outside it.

FAD limits

Curaçao shall ensure that for purse seiners flying our flag and fishing for bigeye, yellowfin or skipjack tunas on FADs the following provisional limits are not exceeded:

No more than 350 FADs with or without instrumental buoys will be active at any one time (in relation to each of the tuna purse seiners flying the flag of Curaçao) in 2020, being reduced to 300 in 2021, establishing their control through such measures as, for example, the verification of telecommunication bills.

11. Control and monitoring measures

The relevant authorities could carry out documentary inspections regarding the provisions specified in the present plan. They might request, if needed be, the data referred to in the sixth paragraph.

The Ministry of Economic Development will be the responsible for processing and monitoring the information supplied by the operators. This Authority shall be entitled to prepare the monitoring reports of the present plan and also to propose the measures it may see fit in order to improve the overall performance of the system.

12. Measures for the confidentiality of the data supplied by the operators

The information supplied by the operators will always be treated confidentially. Its use will be strictly limited to scientific ends, or those of control, if necessary. The Ministry of Economic Development assumes that this information will not be made public beyond the above-mentioned limits, at least without the express consent of the shipowners.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

CPC name: EL SALVADOR

Fishing Plan Year: 2021

1. Introduction

Guided by its policy to revive social and economic development opportunities, at the end of the past century the Republic of El Salvador identified the need to develop high seas fishing activity on highly migratory and straddling species due to its contribution to national productivity and food security. In this context, in 2003 El Salvador inaugurated its tuna industry, which is dependent on raw material from this fishery and currently has a processing capacity of 150 t per day.

There are currently five vessels under the flag of El Salvador, four of which are purse seiners actively fishing in the ICCAT Convention area, targeting species known as tropical tunas[1].

The tuna industry is a priority source of employment and foreign exchange for the impoverished communities of El Salvador. This industry has contributed on average 0.44% to the gross domestic product over the past three years at current prices, generating 1,500 direct and 5,000 indirect jobs and making a much larger contribution to food security and the socio-economic revival of the country. It is therefore fundamental to develop catch activity to guarantee the industry, within the framework of the opportunities provided by the international law of the sea and the corresponding legal and technical regulations, in addition to the collaborative work of regional fisheries management organisations (RFMOs), and all within the context of responsible fishing.

At the 26th Regular Meeting of ICCAT held in Palma de Mallorca (Spain) in November 2019, a Multi-Annual Conservation and Management Programme for Tropical Tunas was adopted as reflected in the current Recommendation 19-02, which El Salvador has undertaken to comply with. This recommendation established precautionary catch limits for one year (2020) which will probably also apply in 2021, due to the effect of the limitations imposed by the COVID-19 pandemic, since scientific exchange and analysis for establishment of long-term measures has been prevented. Conditioned by the application in 2021 of the catch limits contained in paragraph 4 of Recommendation for El Salvador (1553 t of bigeye), this plan has been developed for implementation and compliance purposes.

This Plan presents the objectives related to the management of the tropical tuna capacity of vessels under the flag of El Salvador, which have the following capacity and potential:

Vessels	*Capacity (m^3)*
MONTEALEGRE	1860
MONTELAPE	1559
MONTEFRISA NUEVE	1,358
MONTECELO	1,358

2. Details of fishing plan – For CPCs with an average catch of >1,000 t

In 2021, El Salvador will implement Rec. 19-02, with particular emphasis on compliance with measures regarding catch limits and the number of FADs, as detailed below:

[1] Bigeye (*Thunnus obesus),* Yellowfin *(Thunnus albacares)* and Skipjack *(Katsuwonus pelamis)*

	ICCAT requirements (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and capacity reductions (Part II)**	In accordance with Paragraph 4 of Rec. 19-02, El Salvador undertakes to maintain reduced its average catch of 1,725.30 t, by foregoing 10% of its potential. Consequently, the catch limit to be applied in 2021 is 1,533 t. All aspects of Rec. 19-02 will be complied with.	In accordance with Articles 5 and 96 of the General Law on Fishing and Aquaculture Management and Promotion, the provision of ICCAT Rec. 19-02 is binding.	El Salvador undertakes to comply with the provisions of Rec. 19-02 in 2021 on an exceptional basis. However, it does not renounce its right to participate equally in the fishing of tropical tunas on the high seas of the Atlantic. Appealing to its status as a developing State and as per Paragraph 7 of Rec. 19-02, El Salvador advocates for a fairer distribution in accordance with the fishing opportunity criteria adopted by the Commission, and hopes that it is recognized that the sacrifice for 2021 – for the second consecutive year – which must be made by its active fleet so as not to exceed the limit, is not sustainable, as well as the negative impacts that this has on the national economy.
2.	**Capacity Limits (Part III)**	These were communicated in writing on 29/1/2020.		
3.	**Management of FADs and FAD Closure(s) (Part IV)**	The FAD management plan was enacted, with the elements described in Rec. 19-02, including: a. Reduction of FADs b. Total FAD closure in the area c. FAD characteristics d. Control, data collection and communication measures established in Rec. 19-02.	In accordance with Articles 5 and 96 of the General Law on Fishing and Aquaculture Management and Promotion, the provision of ICCAT Rec. 19-02 is binding. The Management Plan was issued as an official document of the Fishing Authority.	
4.	**Control Measures, including planned trials of electronic observers (Part V)**	a. El Salvador issues specific tropical tuna fishing licenses to ICCAT-registered vessels. b. Catch limits have been distributed per vessel to facilitate verification of compliance and progression of bigeye tuna catches. c. Catches are recorded in the vessel's fishing logbooks.	In accordance with Articles 5 and 96 of the General Law on Fishing and Aquaculture Management and Promotion, the provision of Rec. 19-02 by ICCAT is binding. The satellite monitoring system is in force and mandatory, in accordance with Executive Decree 54 "Regulation on the satellite monitoring and control system of	

	ICCAT requirements (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
		d. The progress of catches is monitored. e. El Salvador's fleet has 100% onboard observer coverage. f. There is a port sampling programme. g. El Salvador has a satellite monitoring centre.	industrial fishing vessels of the General Law on Fishing and Aquaculture Management and Promotion"	
5.	**Other information / measures to be taken**			

Capacity allocation in 2021

Given its real authorised capacity and catch history, it must be taken into account that El Salvador, for the second consecutive year, is making efforts to reduce its capacity by 42%, which is not sustainable in the long term and is damaging for the country. Its four active vessels have an average bigeye tuna catch potential of 2,800 t, and the limit established in paragraph 4 of Rec. 19-02 only authorises the catch of 58% of this potential. This figure implies a sacrifice above the reduction perspective of 21% established by the Recommendation for large fishers. Notwithstanding the above, each purse seiner was assigned a bigeye tuna capacity limit of 388 t, with the possibility of transferring underage between vessels in the national fleet during the same year. CENDEPESCA will be informed of any transfers. Periodic catch monitoring will allow the country to avoid exceeding its total limit of 1,553 t for 2021.

3. Capacity extension plans in 2021 for CPCs with an average catch of <1,000 t

Not applicable. As El Salvador has an average catch of over 1,000 t, it is not appropriate to issue an extension plan reserve.

Nonetheless, bearing in mind its status as a developing State[2] and its intention to maintain its current capacity in the short or medium term, on several occasions El Salvador has stated the urgent need to establish catch limits that are linked to its current capacity, in particular in accordance with its rate.

Therefore, international organisms must ensure fair and non-discriminatory distribution, which implies, among other aspects, that any permanent capacity limitations imposed on El Salvador must be similar to the limitations established for CPCs of a similar status, and must never be lower than other CPCs in a similar position or with lower priority, in accordance with ICCAT fishing opportunity allocation criteria, as this would be discriminatory and contravenes the right to exploit high-sea fisheries in a reasonable and proportionate manner. To that effect, El Salvador advocates a correction of this effect by increasing its catch limit.

However, it recognises the need to ensure that global catches are consistent with the agreed MSY for the fishery in 2021, but also advocates equal and proportionate measures that are fair and non-discriminatory, in line with the provisions of the FAO Code of Conduct for Responsible Fisheries.

Enacted in Santa Tecla, La Libertad, Republic of El Salvador, 31 January 2021.

4. FAD Management plan in fisheries developed in the International Commission for the Conservation of Atlantic Tunas Convention Area

The FAD management plan was drafted and is in effect as per the guidelines and formats adopted by ICCAT, in accordance with the following text:

[2] The current total capacity of ICCAT-registered vessels under the flag of El Salvador is 8,054 m^3

FISH AGGREGATING DEVICES MANAGEMENT PLAN FOR THE NATIONAL FLEET TARGETING TROPICAL TUNAS IN THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNA CONVENTION AREA FOR 2021

FIRST SECTION: GENERAL FRAMEWORK

This plan establishes the obligatory guidelines that tuna purse seiner operators must follow and abide by in the construction, use, placement, retrieval and deactivation of fish aggregating devices (FADs) and the corresponding components.

***Material scope**:* This plan covers the operations of all national flagged vessels that are authorised to fish tropical tuna or perform tropical tuna fishing support operations in the International Commission for the Conservation of Atlantic Tunas (ICCAT) Convention Area.

Temporal scope: This plan will be in force for the duration of the validity period of Recommendation 19-02 by ICCAT. It must be adapted as required in the event of any amendments to the aforementioned Recommendation, in order to ensure that it meets the guidelines determined by ICCAT, without detriment to any more robust measures taken by the State of El Salvador to support the management measures established in that organization.

***Binding nature*:** This plan is binding. Failure to fulfil the plan implies a serious breach of the law by the operator responsible for this violation and may be sanctioned in accordance with the law following a due trial. This sanction could involve a monetary fine, or even the cancellation of fishing authorizations.

***Monitoring*:** CENDEPESCA will constantly monitor compliance with the management plan and will report any breaches to the corresponding national authorities, with a view to adopting the respective sanctions or legal measures. Likewise, CENDEPESCA will monitor the evolution of correlative management measures adopted in ICCAT to maintain a perspective of adaptation to management improvements.

***Participation*:** Under the leadership of CENDEPESCA and in consultation with the national authorities, experts, scientists and associated industry will help follow up the plan in the framework of the existing relationship and coordination forums, in order to ensure monitoring, fulfilment and improvement of the plan.

***Nomenclature*:** The nomenclature found in paragraph 26 of Recommendation 19-02 shall be adopted, in addition to the general and specific concepts included in this Recommendation.

***Objectives*:** In accordance with paragraph 35 of Recommendation 19-02, the objectives of this plan are as follows:

i. *improve knowledge of FAD characteristics, buoy characteristics, FAD fishing, including the fishing efforts of purse seiners and associated support vessels, and related impacts on targeted and non-targeted species;*
ii. *effectively manage the deployment and recovery of FADs, the activation of buoys and their potential loss;*
iii. *reduce and limit the impacts of FADs and FAD fishing on the ecosystem, including, where appropriate, by acting on the different components of fishing mortality (e.g. number of deployed FADs, including number of FAD sets by purse seiners, fishing capacity, number of support vessels).*

SECOND SECTION: Description of FADs

FADs with the following description will be used in purse seine fishing activity:

a) FAD type

The Republic of El Salvador has authorised its fishing fleet to use non-entangling drifting FADs (*dFADs*). Both the raft and tail of the dFADs must meet the requirements and possess the conditions and characteristics described in this plan, especially those mentioned in point a) "FAD design characteristics" of the section regarding FAD production.

b) Type of beacon/buoy

All FADs used by the national fleet must have a satellite buoy echosounder installed, and the number of the device associated with the respective vessel, as well as the series and number of the associated electronic devices must be identified in the corresponding records. These identification methods form the basis of dFAD traceability. The buoy will transmit by satellite and echosounder, as mechanisms to ensure drifting floating objects can be located and monitored.

c) Max. number of FADs

The operator will ensure that its tuna vessels fishing bigeye, skipjack or yellowfin tuna with FADs do not exceed the established limits while ICCAT Recommendation 19-02 is in force, namely:

1. Year 2021: 300 FADs per vessel

These figures may vary in the event that ICCAT Rec. 19-02 is amended. In this case, the amendment will be indicated in this plan. The maximum number of active FADs per vessel will be adjusted to the binding stipulations issued by ICCAT.

The number of FADs is monitored by the fishing authority to guarantee compliance with the regulations in force.

d) Minimum distance between aFADs

Not applicable, as El Salvador does not use aFADs and, therefore, no ordinances have been issued regarding the separation distance that must be observed by the national fleet when deploying aFADs.

e) Incidental by-catch reduction and utilization policy

As established in national law, by-catch is defined as a catch of any species other than the target species during fishing operations. Some species may be prohibited and must be returned to the sea after being caught, and should be released alive insofar as possible. In addition, special activities must be carried out to prevent these catches or at least limit undesired discard, and they may only be used on the condition that the amount of the catch clearly shows that it was unintended.

In addition to its national legislation, El Salvador also has a Code of Ethics for Fishing and Aquaculture (CODEPESCA)[3] to complement higher level regulations, including relevant international treaties and in accordance with the principles and regulations of the FAO Code of Conduct for Responsible Fisheries. In this context, the national policy aims to:

> *"...2.2 Promote the protection and sustainable usage of living aquatic resources and their environments, in addition to coastal areas and aquatic reserves;*

[3] http://www.fao.org/3/ad941s/ad941s0b.htm

2.3 Establish and apply the principles and criteria under the relevant regulations included in international law to ensure that fishing and aquaculture activities are carried out *responsibly;*

2.4 Serve as a reference instrument that promotes the refinement of the political, legal and institutional frameworks necessary to implement the principle of responsible fishing;…"

In this framework, it stipulates that:

"All persons that are involved in fishing and aquaculture in any manner must…/…

4.1 Contribute to the sustainable use of fishery resources to meet the needs of current and future generations, while striving to carry out the different phases of fishing and aquaculture in a manner that maintains the nutritional value, quality and safety of the products, and also reduces waste and minimizes negative impacts on the environment.

4.2 Comply with rationally established fishing and aquaculture management regulations that aim to maintain the quality, diversity and availability of fishery resources within a context defined by sustainability and food security.

4.4 Protect the ecosystems in which fisheries and aquaculture activities are developed…"

4.5 Encourage research and fishery and aquaculture technology, with the intention of orienting the results towards permanent responsible behaviour. The management measures will be supported by duly substantiated and verified scientific research, or precautionary criteria when no research has been carried out, considering the opinions of persons involved in the measures to be implemented.

4.6 Transmit the precepts of CODEPESCA, in addition to knowledge and experience, to future generations in order to ensure that members of the fishing and aquaculture sector are increasingly aware of their responsibility to safeguard and protect the balance of the aquatic ecosystem, the productivity of which is a source of food, employment and financial income.

4.8 Promote compliance with the constitutional, legal, obligatory and all other regulations formally issued by the competent State authorities, undertaking to refrain from participating in or encouraging acts that contravene legal precepts, or associating with those who promote or carry out such illegal acts.

4.9 Consider solidarity as a basis and stimulus to push the adoption of productive cooperation policies and participatory practices that ultimately improve the quality of life enjoyed by current and future generations, based on equal access to fishery resources.

4.10 Ensure that conduct is always guided by the principles of decorum, dignity and integrity, while faithfully complying with this Code. Accordingly, apply, monitor and follow up on its precepts in cooperation with the competent authorities.

In accordance with the above-mentioned points, vessel owners or operators, especially the captain, must present information on by-catch during fishing activity. The information will describe the position of the catch, species, estimated volume and number of fish, and will also indicate the actions that could have been applied to reduce by-catch and ensure the survival of any species caught that cannot be used or are subject to special conservation measures.

The report must make special reference to the provision and use of by-catch that may have occurred during fishing operations.

The information must be presented in the formats defined by CENDEPESCA for this purpose, and will be evaluated with the aim of adapting fishing operations to reduce the chances of potential by-catch and therefore avoid discards or threats to non-target species. Chelonians, pinnipeds and marine mammal catches continue to be forbidden.

Additionally, the best practices management system, based on joint management by the State and operators in association with non-government and trade associations, will remain in place.[4] This system aims to improve the techniques used in purse seine fishing, including improving the selectivity of tuna purse seine fishing within the framework of responsible and sustainable fisheries that minimises the consequent effects on the marine ecosystem.

These best practices can be summarised as follows:

1. Design and use of non-entangling FADs for sensitive associated species (turtles and sharks)
2. Development and application of release techniques that entail a lower risk and maximise these species' chances of survival, including specific equipment and material.[5]
3. A FAD management system based on the implementation of a fishing logbook for monitoring and control purposes.
4. FAD logbooks, which are used to complete the ICCAT ST08 form
5. 100% observer coverage on fishing trips.
6. Training for captains and crew
7. Verification of activities related to good practices by scientific organisms, and
8. Constant monitoring by a review committee.

New practices that are consistent with management and aim to reduce the impact of by-catch on the ecosystem will be constantly analysed to evaluate the possibility of including them in this plan.

The coverage of independent onboard observers who collaborate with activities allows us to discover, develop and gain feedback on the practice of best techniques to avoid by-catch and ensure the correct release of associated species that have been accidentally caught.

f) Consideration of interaction with other gear types

Purse seine gear is quite selective as it is used on a school. It has a minimal impact on the habitat as it is used far off the coast and does not disturb the sea bed. As many dFADs as possible are retrieved as their geolocation is available.

The main interaction with other gear types is with drifting and surface longline.

It has been noticed in certain cases that, in the event of unintended interaction between a drifting longline and a dFAD, the longline operator weakens the structure and, therefore, the normal stability of the dFAD by cutting its tail when it gets tangled with their gear. Consequently, this causes the loss of the device, creates waste and potentially leads to ghost fishing. In this case, El Salvador does not have longline vessels in the Convention area and, therefore, we do not have governance capacity over the conduct of other fishing gear operators.

Although there are studies on interactions with artisanal fishing, the work of auxiliary vessels minimises the impact of FADs in areas where artisanal fishers operate.

Purse seine operators are asked to fully document any cases of interaction and/or loss of devices and notify CENDEPESCA so that mechanisms may be developed to mitigate the effects of negative interaction.

g) Statement or policy on "FAD ownership"

FADs are owned by the operator subject to the operating conditions in existing regulations. When fishing with or deploying FADs, tuna vessel operators must keep a record and inventory that includes all the information regarding FAD-related activities (Appendix I: FAD and beacon journal and Appendix II: FAD and beacon inventory) each time a FAD is deployed, each visit to a FAD (regardless of whether it is followed by a set), or whenever a FAD is lost.

[4] This includes the Code of Best Practices for responsible purse seine tuna fishing: https://www.azti.es/atuneroscongeladores/recursos/buenas-practicas-para-una-pesca-atunera-de-cerco-responsable/

[5] Metallic manta release structure, use of Velcro

In order to record the relationship between a vessel and a dFAD under its ownership, the operator of the tuna fishing and auxiliary vessels must carry out an inventory of all the deployed FADs and buoys, including at least the following information (Appendix II FADs and beacon inventory):

- FAD Identifier
- Type of FAD and electronic equipment (associated beacon type).
- FAD design characteristics (material of the floating part and of the underwater hanging structure and whether the latter is entangling or non-entangling, as well as whether it is biodegradable).

h) Use of support vessels, including from other flag CPCs

El Salvador-flagged tuna vessels may have support from auxiliary vessels during fishing operations. These must be duly registered with ICCAT and have all the valid certificates and licenses necessary to carry out their activity. The Salvadoran fleet has received support from three Panama-flagged vessels with 100% physical or electronic observer coverage. A Salvadoran-flagged support vessel, which is registered with ICCAT, has recently become operative, and does not constitute a capacity increase in the Atlantic since it was a change of flag from a vessel previously registered with ICCAT; therefore, the vessel is registered with ICCAT under the El Salvador flag. Therefore, from December 2020, the Salvadoran fleet will continue to use two Panamanian support vessels and the Salvadoran vessel referred to above, in operating conditions that are efficient and sufficient to support its fleet, in line with International Law and responsible fishing.

In accordance with paragraph 48 of Rec. 19-02, correspondence between fishing vessels and the support vessels that have provided them with support services will be submitted to ICCAT before 31 July 2021.

THIRD SECTION: Institutional arrangements

a) Institutional responsibilities for the FAD Management plan.

The competent authority responsible for monitoring the plan is the Directorate-General of the Centre for the Development of Fishing and Aquaculture (CENDEPESCA), which is in charge of ensuring compliance with the plan and monitoring the actions of vessels on the high seas through a monitoring, control and surveillance system.

b) Application processes for FAD deployment approval

Operators do not require prior approval from the national fishing authorities for deployment, but they must abide by the amounts and conditions established in this plan. Additionally relevant information regarding FAD use, deployment, activation, visits and sets must be recorded in the fishing logbook and FAD logbook, and the number of deployments must be controlled to ensure it does not exceed the limit established in Rec. 19-02. Furthermore, monthly positions and speed histograms are reviewed, allowing us to determine the number of active FADs controlled by the vessel owner for fishing purposes.

c) Obligations of vessel owners and captains in respect of FAD deployment and use

The vessel owner and captain have two obligations with regards to FAD deployment and usage:

1. Keep a FAD logbook to record all activities related to this type of device, in accordance with Recommendation 16-01 paragraph 21, and

2. Provide all the information resulting from these activities to the fishing authorities after each month of activity.

Without prejudice to any other information formally stipulated by ICCAT, and which is therefore understood to be included in the following non-exhaustive list, the information below must be immediately recorded by the fishing vessel owner and captain:

1. Each time a FAD is deployed
   - Position
   - Date
   - FAD type (artificial or natural drifting FAD, anchored FAD)
   - FAD Identifier
   - FAD design characteristics (material of the floating part and of the underwater hanging structure and whether the latter is entangling or non-entangling, as well as whether it is biodegradable).

2. Each time a FAD is visited (regardless of whether it is followed by a set)
   - Type of visit (FAD and/or buoy deployment, FAD and/or buoy recovery, strengthening/consolidation of a FAD, intervention on electronic equipment, random encounter of and visit (without fishing) to a FAD belonging to another vessel, fishing set on a FAD).
   - Position
   - Date
   - FAD type (artificial or natural drifting FAD, anchored FAD)
   - FAD Identifier
   - If the visit is followed by a set, the terms of the catch will be recorded: species, no. of fish and no. of live released fish
   - If the visit is not followed by a set, note the reason (e.g. not enough fish, fish too small, etc.)

3. Each time a FAD is lost
   - Last registered position
   - Date of the last registered position
   - FAD Identifier

d) FAD replacement policy

Whenever the vessel owner determines that a FAD has been lost, they must submit a report to CENDEPESCA with the following information:

a. Vessel that deployed the FAD
b. Date of deployment
c. FAD identifier number
d. Buoy data
e. Date of activation
f. Date on which deactivation and signal loss is reported
g. Course taken
h. Actions taken to recover the FAD, if possible, and the outcome
i. Specific substitution requirement

Once CENDEPESCA has received this information, it may ask for additional information within a period of 72 hours. In any case, substitution will be authorised within the same timeframe if no additional information is required and it is demonstrated, at the discretion of CENDEPESCA, that the lost FAD can no longer be used by the owner for fishing purposes.

If the vessel owner receives a reactivation signal from the FAD, recovers the FAD, or finds it following a visit, they must collect it and inform CENDEPESCA of these events, especially the disablement of the FAD.

e) Additional reporting obligations beyond this Recommendation

Tuna and support vessel owners and/or an independent scientific organism hired by the owner for this purpose must regularly send a report for each tuna vessel to CENDEPESCA, which details all the information on the number of active buoys and accredits compliance with the limits established in the section on number of active FADs per vessel. Likewise, the operator will regularly send the buoy inventory and FAD logbook to CENDEPESCA, including at least the information indicated in the FAD markings and identifier section.

If non-compliant FADs (non-entangling) belonging to other vessels are found at sea, this must be recorded in the FAD logbook, identifying the location and, insofar as possible, any characteristics and identifying elements visible on the device, such as the series number and names or inscriptions indicating the owner.

f) Conflict resolution policy in respect of FADs

All vessel owners and operators must respect the ownership of foreign FADs and refrain from setting on a foreign FAD. In the event of a FAD ownership conflict, CENDEPESCA will review the case in accordance with the documentation provided and the ownership and activity records delivered by the parties in order to make a decision. Setting on a foreign FAD is a violation of the law and will be sanctioned in accordance with the corresponding legislation.

g) Details of any closed areas or periods e.g. territorial waters, shipping lanes, proximity to artisanal fisheries, etc.

Vessels under the flag of El Salvador are subject to the area/time closure defined for 2021, which means that they cannot set on FADs in a defined area and timeframe. Furthermore, the Salvadoran fleet is aware that fishing activities in the territorial waters of coastal countries is forbidden, unless the relevant license has been issued by the country in question. For this reason, our Department of Fisheries Monitoring, Control and Surveillance closely monitors the navigation routes and activities of vessels through VMS.

FOURTH SECTION: FAD construction specifications and requirements

a) FAD design characteristics (a description)

FAD design must minimise the impact of fishing activity on non-target species, especially turtles and sharks. Based on this consideration, it is established that FADs must be constructed with non-entangling materials that have the basic agreed characteristics, as established in the guidelines of Appendix 5 of Rec. 19-02 by ICCAT. These characteristics should be understood as a minimum, and each company may develop and apply designs that further minimise the impact on non-target species and the environment.

With regards to NON-ENTANGLING FAD components, the following minimum obligatory requirements for construction materials and characteristics are established:

a. RAFT The raft of the FAD that ensures the object's buoyancy must: - be free (no covering), or - be covered with a non-entangling material (such as hessian or a tightly woven material), or - be covered by netting with a maximum mesh size of 7 cm (2.5 inches), approved by the ISSF as a material with a low risk of entanglement.

b. FAD TAILS Any elements that hang from the raft must not cause entanglement and may be made from: - loose ends, or - nets with a maximum mesh size of 7 cm, or - nets with a mesh size of over 7 cm tied in sausage-like bundles, or - any other non-meshed material (for example, tarp). Likewise, the underwater structure may have ornaments (palm leaves, pieces of net), as long as they have a mesh size of under 7 cm.

When designing FADs, priority is given to biodegradable materials when they offer similar performance to non-biodegradable materials. Technical advice from ICCAT will allow for a more certain implementation of the definition and guidelines regarding the use of biodegradable materials in FAD construction.

b) Lighting requirements

Not applicable. dFADs authorised by El Salvador do not have lighting. Nonetheless, it is recognised that the beacon emits a light signal in recovery mode. This is considered desirable and necessary, and is therefore permitted.

c) Radar reflectors

Not applicable. dFADs authorised by El Salvador do not have radar reflectors.

d) Visible distance

Not applicable.

e) FAD markings and identifier

Each FAD and beacon will have an alpha-numeric identification code provided by the manufacturer, which must not be changed throughout its useful life. The identifier will be included in the inventory and the FAD logbook onboard the vessel, and any modifications must be reported indicating the date of the change and the former FAD or beacon identifier. The identification code must be visible. In the event that the observer cannot see the code, the captain or the crew must assist the observer by providing the FAD/beacon identification code.

f) Radio buoys markings and identifier (requirement for serial numbers)

Not applicable considering that El Salvador's tuna purse seine fleet uses satellite beacons instead of radio buoys.

g) Identifier and tag of echosounder buoys

Echosounder buoys will be physically tagged and identified with an alpha-numeric code. Each beacon/buoy must have one single identifier, chosen by the operator, throughout its entire useful life. This code is a sequence of characters placed in a visible area of the beacon/buoy. The identifier will be recorded in the vessel's FAD logbook and CENDEPESCA will be notified of its designation and any modifications.

h) Satellite transceivers

Not applicable for the same reasons as explained in point "f".

i) Research undertaken on biodegradable FADs

Committed to improvement in order to reduce or mitigate the environmental impact of activities at sea, cooperation will continue on pilot programmes carried out alongside NGOs such as ISSF and the Association of shipowners and vessels in order to ensure the use of biodegradable materials and report the conditions of materials, structures and devices until a prototype is established that allows for fishing with a minimal long-term environmental impact. El Salvador urges its vessel owners to facilitate these processes with the State and reserves the right to use non-confidential data in its power to develop national strategies that may be shared with other countries in the search for a collaborative proposal, especially within the framework of ICCAT.

j) Prevention of loss or abandonment of FADs

The use of buoys in FADs allows them to be located and prevents loss or abandonment. Planning the deployment of FADs minimises the risk of the devices drifting into unintended areas.

The need to control FAD movements and locations is recognised.

k) Management of FAD recovery

The support of auxiliary vessels is fundamental to recover objects that have drifted outside of the fishing area.

In the event of a loss of signal, the operator will use the means available to recover the FAD, including support from auxiliary vessels to prevent FAD loss or abandonment, and will act in accordance with the guidelines established in paragraph **1.d)** of this Section.

FIFTH SECTION: Applicable period for the FAD Management Plan

This plan will be in force for 2021, given that it is a plan to implement Rec. 19-02 in relation to FADs, and is limited by the currency of that Recommendation.

SIXTH SECTION: Means for monitoring and reviewing the implementation of the FAD Management Plan

Through the Department of Fisheries Monitoring, Control and Surveillance, as the competent national authority the Centre for the Development of Fishing and Aquaculture will coordinate, access the unrestricted information of vessel owners and captains, and control vessel owner documentation in order to monitor and verify compliance with the plan.

Issued in Santa Tecla, La Libertad, Republic of El Salvador, 31 January 2021.

CAPACITY TABLE[6]

TROPICAL TUNA VESSEL FLEET											
		Number of vessels:						*Total estimated capacity*[7]			
Type	*2018*	*2019*	*2020*	*2021*	Estimated best catch rate per unit *(t)*[8]	*Difference 2018/ 2020*	*2018*	*2019*	*2020*[9]	*2021*	*Difference 2018/ 2020*
Purse seiner over 40 m	4	4	4	4	700 t (x4)	312 (x4)	2634	2452	1553	1553	-1081
Purse seiner between 20 and 40 m	0	0	0	0	-	-	0	0	0	0	-
Purse seiner less than 20 m	0	0	0	0	-	0	0	0	0	0	-
Longliner over 40 m	0	0	0	0	-	-	0	0	0	0	-
Longliner between 20 and 40 m	0	0	0	0	-	-	0	0	0	0	0
Longliner less than 20 m	0	0	0	0	-	-	0	0	0	0	0
For capacity expansion	0	0	0	0	-	-	0	0	0	0	0
Bait boat	0	0	0	0	-	-	0	0	0	0	0
Other gears (specify)	0	0	0	0	-	-	0	0	0	0	0
Total fishing capacity					**2800**		**2634**	**2452**	**1553**	**1553**	
Quota											
Initial quota[10]							n/a	n/a	1553	1553	
Quota transfer made to XX (if applicable)							n/a	n/a	n/a	n/a	
Quota transfer received from XX (if applicable)							n/a	n/a	n/a	n/a	
Total adjusted quota (if applicable)							n/a	n/a	n/a	n/a	

[6] Refers exclusively to capacity and catches of bigeye tuna. It does not describe the vessels' total capacity.
[7] Refers exclusively to capacity and catches of bigeye tuna. It does not describe the vessels' total capacity.
[8] Refers exclusively to bigeye.
[9] Catch and consequent total capacity for 2020 will be confirmed through submission of the official ICCAT form with the data by 31 July 2021.
[10] El Salvador was not subject to a quota until 2019, but rather to aspirational limits in accordance with Rec. 16-01 and its amendments.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: EUROPEAN UNION

Fishing Plan Year: 2021

1. Introduction

In December 2019, the European Union (EU) informed ICCAT CPCs that it would not wait for the date of entry into effect of Recommendation 19-02, and instead would implement these multiannual measures starting on 1 January 2020. This reflected the strong concerns of the EU about the status of the stock of bigeye tuna (BET) and the urgency in implementing the new management measures agreed during the 2019 ICCAT Annual Meeting. Similarly, in 2021, the EU intends to continue to implement Recommendation 19-02, including the measures adopted under proposal PA1-503A.

As part of these measures, in 2021 the EU continues to freeze its fishing capacity for all large-scale vessels and implements significant catch reductions. The EU has also established procedures to ensure the efficient monitoring and reporting of catches by its operators, with the objective of ensuring full compliance with its catch limit. Additional measures are also being implemented to verify the full implementation of the closure period for vessels operating on FADs.

Three EU Member States are actively fishing for tropical tunas in the ICCAT Convention area: EU-France; EU-Portugal and EU-Spain; all with different fleet profiles and different levels of involvement in these fisheries. Specific details are provided for these three EU Member States:

EU-France

In 2021 the quota of BET for EU-France will be 3230 t.

Consistent with ICCAT Recommendations on the management of tropical tunas EU-France implements the following measures:

- monitoring catches and consumptions of the unallocated bigeye tuna quota on a monthly basis;
- allocating national bigeye tuna quota among three fishing vessels categories: purse-seiners and baitboat which are targeting tropical tuna, other fleets, notably pelagic trawler, that are fishing tropical tuna as a by-catch (national order in the process of adoption);
- respecting the ICCAT existing closure areas and period;
- limiting the use of Fish Aggregating Devices (FADs) and working towards a better knowledge of their potential impacts on the environment;
- controlling the fishing capacity through the implementation of a licensing system.

EU-Portugal

In 2021 EU-Portugal will benefit from a bigeye tuna quota of 3133,93 t, mainly used by the Portuguese outermost regions of Azores and Madeira (85%), whose fleets are highly dependent of tropical tuna and, consequently, highly exposed to any fluctuations in the availability of this resource. This fleet is mainly composed of artisanal vessels, engaged in seasonal fisheries, operating mainly with pole and line and handlines, with a LOA below 12m, utilizing low impact gears in a fishery also known as a "one by one fishery". The most relevant species in the Portuguese tropical tuna fisheries are bigeye and skipjack.

The longline fishing segment also contributes to the consumption of the Portuguese quota, but only as by-catch of the main fishery (swordfish and blue shark). Although collateral, this fishery observes incidental catches of tropical tuna, which, overall, contribute to the economic sustainability of the longline fishery, especially when taking into account the recent additional constraints felt by this segment, due to the continued decrease of fishing possibilities, not only of the main targeted species, but also of all by-catch. For these reasons, the fishing plan includes the surface longline segment within the list of authorized segments to catch tropical tuna (pole and line as targeted species and longline as by-catch).

By doing this the longline segment is allowed to take advantage of eventual opportunistic catches while providing flexibility to the fishery (15% of the Portuguese quota), bearing in mind that these catches are very limited due to the specificities of the targeted species and the gear configuration.

EU-Spain

In 2021, Spain's quota for BET will be 7604,35 t. Spain has allocated this quota among the various fleet segments that fish that stock, either as a target species or as by-catch, including the following six groups: purse seiners, baitboats in the Canary Islands, artisanal vessels in the Canary Islands, baitboats in African waters, longliners and other fleets. Other fleets include sport and recreational fisheries and vessels targeting northern albacore in the Cantabric Sea. A total of 634 vessels are included in this fishing plan, including those with potential by-catches. Most of them may be considered as small scale coastal vessels.

EU-Spain adopted a national regulation (Orden Ministerial) to create a permanent record for vessels authorised to fish for bigeye tuna in the Atlantic, which enshrines the principles of sustainable management of the fishery for 2021 and the years to come. Article 17 of the EU Common Fisheries Policy Regulation (Regulation (EU) no 1380/2013 of the European Parliament and of the Council) is to be implemented so that these fleets with less impact in terms of juvenile mortality would get a fair share of the quota due to their lower environmental impact.

2. Details of fishing plan – For those with >1,000 t *average catch*

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits* and Catch reductions (Part II)**	The EU accepted to implement in 2020 a 21% reduction of its TAC for BET to facilitate the implementation of the overall TAC in ICCAT. This reduction is implemented again in 2021, in addition to the reduction of the TAC at the ICCAT level (61500t). Specific catch limits have been fixed accordingly for each EU Member State under the TAC et Quota Regulation adopted in January 2021.	Council Regulation fixing the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters -	
		EU Member States have allocated quotas internally to various gears, and specifically allocated quota for potential bycatches.	Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy	
		All EU vessels over 12m are equipped with electronic logbooks, allowing daily transmission of catches to the competent authorities. Vessels under 12m have the obligation to transmit logbook details at the end of each fishing trip. Upon landing, catches must be weighed and each vessel must provide a landing declaration to its competent authorities. Catches are compiled and validated before being transmitted to the European Commission (EC) through the Aggregated Catch Data Report system (ACDR).	Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy	

		In 2021, the EU will report catches of all three species of tropical tuna according to paragraphs 13-16 of Rec. 19-02. Once catches reach 80% of the TAC, EU Member States are required to notify the EC and to monitor the TAC uptake to prevent overfishing. In the case of BET, EU Member States will transmit catches on a weekly basis once 80% of the TAC has been caught. To facilitate reporting on all tropical tuna species, ACDR (Aggregated Catch Data reporting) has been updated to introduce new required species/areas code. In order to closely monitor the catches of BET occurring in the context of the fishery for skipjack tuna on FADs, EU-Spain is also allocating specific quotas for each purse seine and baitboat vessel.	The specific quota allocation at the vessels levels is implemented through a Ministerial Order.	
2.	**Capacity Limits (Part III)**	The number of large-scale EU fishing vessels has been frozen to the 2019 level, pending further discussions on the allocation of fishing opportunities in PA1. This number of vessels is consistent with the various catch limits (not only BET) for the EU in 2021. It should be noted that a large proportion of these vessels do not target specifically bigeye tunas, and instead are often engaging in fishing activities for other tropical tunas stocks. The number of supply vessels has also been frozen, pending further discussions in Panel 1. Details regarding the PS vessels associated to the supply vessels are also provided in this fishing plan.		The Commission should decide on how capacity limits should be implemented. The template provided by the ICCAT Secretariat makes reference to catch rates but these catch rates are not available for tropical tunas. The number of purse seine vessels authorized in 2021 is below the 2019 level, and does not reflect the full EU capacity since three additional vessels are currently being rebuilt following sinking incidents.

3.	**Management of FADs and FAD Closure(s)(Part IV)**	In 2021, the EU is implementing the FADs limits adopted under Rec 19-02 (Maximum 300 FADs per vessel). Verifications of the number of FADs per vessel will be conducted by the competent authorities. The EU already provided in 2020 the necessary information on the number of FADs sets to SCRS. EU vessels fishing on FADs will comply with paragraph 32 of Recommendation 19-02 (observer onboard). Along with this fishing plan, the EU is also providing FADs management plans for the two Member States concerned (EU-France and EU-Spain). Regarding the FADs closure, the EU is implementing the three months closure in January-February-March 2021 over the ICCAT Convention area. The implementation of this measure is verified through the compulsory deployment of observers onboard and through the analysis of the catches composition.		It remains challenging for the CoC to determine if the limits on the maximum number of FADs are being implemented. Panel 1 and IMM should explore the potential value of a scheme of regional observer for this purpose. Panel 1 should clarify if the closure period under paragraphs 27 and 28 of ICCAT Rec. 19-02 applies to all activities related to FADs, including the replacement of the buoy for another (often referred to as a transfer operation). Panel 1 should explore the possibility to adopt specific measures to verify compliance with the closure period by vessels fishing in January-February and March on free schools.
4.	**Control Measures, including planned trials of electronic observers (Part V)**	The EU provides to the ICCAT Secretariat the list of its vessels authorized to fish tropical tunas in 2021. The EU is implementing the provisions of Recommendation 19-02, including on the compulsory deployment of observers on 100% of its purse seiners. The list of support vessels operating in 2021, as well as the names of the purse seiners associated with these support vessels, are provided in this fishing plan.		

		Trials for electronic observers have started, and the work of the IMM in 2021 should further guide this work.		
5.	**Other information / measures to be taken**			

Support vessels operating with EU vessels

Support Vessel Name	**ICCAT Number**	**Vessels receiving support**
GARBOLA	ATEU0ESP03882	ALBONIGA, EGALUZE and ZUBEROA.
HAIZEA BAT	ATEU0ESP03889	ALBACORA QUINCE.
HAIZEA HIRU	ATEU0ESP03967	MAR DE SERGIO.
AVEN (Flag Belize)	AT000BLZ00074	CAP BOJADOR, GEVRED, GUEOTEC, GUERIDEN, PENDRUC, STERENN

4. FAD Management Plans

FADs management plans have been provided for EU-France under Document Ares(2021)637772 and EU-Spain under document Ares(2021)341260.

CAPACITY TABLE [1]

TROPICAL TUNA VESSEL FLEET				
	Number of Vessels			
Type	2019	2020	2020 corrected [2]	**2021**
Purse seiner	26	25 [1]	25	**22**
Supply vessels	4	4	4	**4**
Baitboats	175	175	444	**507**
Bycatch (longliners + Artisanal)	1718	1,718	1,403	**1,466**
Total fishing capacity		1,922	1,876	1,999
	Quota (t)			
Initial quota	16,989		15,843	**13,668**
Quota transfer made to XXX (if applicable)			[…]	**[…]**
Quota transfer received from Japan			300	**300**
Total adjusted quota (if applicable)			16,143	**13,968**

[1] The capacity table does not include calculations based on catch rates, as suggested in the template provided in CP48, because these rates are not available.

[2] Following recent clarifications received from one of its Member State, the EU provides updated figures in terms of the number of vessels per gear for 2020. A number of baitboats were previously wrongly reported as vessels for which bycatches of BET could occur, when they should have been reported as baitboats. While this results in a much larger number of baitboats, this does not amount to an increase in capacity and it is also necessary to clarify that most of these baitboats are small scale artisanal vessels.

2021 FRENCH NATIONAL FAD MANAGEMENT PLAN FOR THE ATLANTIC

Chapter 1 – Management measures framework

Article 1 – Reference texts

- *Recommendation by ICCAT to replace Recommendation 16-01 by ICCAT on a multi-annual conservation and management programme for tropical tunas* (Rec. 19-02);
- *Recommendation by ICCAT on the by-catch of sea turtles in ICCAT fisheries* (Rec. 10-09), in particular paragraph 2.a;
- ICCAT Recommendations 05-05, 10-07 and 11-08 on the conservation of sharks;
- FAO Guidelines to Reduce Sea Turtle Mortality in Fishing Operations, adopted by FAO at the 26th session of COFI in March 2005;
- Recommendations of the CECOFAD programme on data collection on floating objects;
- ISSF recommendations on types of FAD susceptible to entanglement.

Article 2 - Scope

2.1 Vessels covered by the French FAD plan for the Atlantic Ocean

This FAD management plan applies to tuna purse seiners registered with a French port and operating in the waters of the Atlantic Ocean in 2021. **Table 1** lists these vessels.

Table 1. Vessels covered by the French FAD management plan for the Atlantic Ocean.

Vessel name	Vessel type	Purse seiners assisted by a buoy tender
AVEN (Belize flag)	Buoy tender	CAP BOJADOR, GEVRED, GUEOTEC, GUERIDEN, PENDRUC, STERENN
CAP BOJADOR	Purse seiner	
GEVRED	Purse seiner	
GUEOTEC	Purse seiner	
GUERIDEN	Purse seiner	
PENDRUC	Purse seiner	
STERENN	Purse seiner	
VIA ALIZE	Purse seiner	
VIA AVENIR	Purse seiner	
VIA EUROS	Purse seiner	
VIA MISTRAL	Purse seiner	

This management plan also applies to French-flagged support vessels that operate within the tropical purse seine tuna fishery.

2.2 Vessels covered by the French FAD management plan for the Atlantic Ocean

The management plan is concerned with drifting FADs and their instrumented buoys deployed and used by French purse seiners and their buoy tenders.

Article 3 - Definitions

Activation of a beacon: The act of enabling activate the satellite communication services by the buoy supplier at the request of the buoy owner. The owner then starts paying fees for communication services. The buoy can be transmitting or not, depending if it has been manually switched on.

Fishing activity: Any activity related to locating fish, release, deployment, trailing or hauling fishing gear, embarking catches, transhipment, retaining on board, processing on board, transferring, and landing fish and fisheries products.

Instrumented beacon / buoy: Electronic device used to locate and track a FAD. The beacon must carry a clearly marked unique reference number to enable identification of its owner and be equipped with a satellite monitoring system for surveillance of its position.

Active beacon: Beacon whose satellite communication system has been initiated by the buoy supplier at the request of the vessel owner or beacon manager. At this stage, the beacon does not transmit its position or any additional information such as biomass estimates produced by echosounder beacons.

Beacon in storage: Instrumented beacon that has been acquired by the owner but not made operational. Any beacon onboard a vessel that is the owner is considered to be in storage in this management plan.

Operational beacon: A beacon is considered to be active when it has been registered on the satellite system (active beacon), switched on (an active beacon that has been switched on is said to be "in transmission"), deployed at sea and transmits its position or any other available information such as echosounder estimates.

Shared beacon: A beacon whose information (position and echosounder signal) is transmitted to at least two vessels (purse seiners or navigation aid vessels), which therefore share the beacon. The contribution of a shared beacon to the number of operational buoys of a given purse seiner is equal to 1/number of purse seiners sharing the beacon.

Deactivation of a beacon: Cancellation of the satellite communication service. It is carried out by the buoy supplier at the request of the purse seine vessel owner or operator or its buoy tender. A deactivated buoy can only be reactivated if it is onboard the purse seiner that owns it or a buoy tender.

Fish aggregating device (FAD)**:** Within the meaning of Recommendation 19-02, a FAD is a permanent, semi-permanent or temporary object, structure or permanent device of any material, either manmade or natural, which is deployed and/or tracked, and used to aggregate fish for subsequent capture. FADs can be anchored (aFAD) or drifting (dFAD). Article 5 of the management plan completes and states this definition.

Drifting FAD (dFAD): A FAD that is not anchored. A dFAD generally has a floating structure (such as a bamboo or metal raft and its floatability is ensured by buoys, corks, etc.) and a submerged structure (made of canvas, rope, etc.).

Beacon supplier: Any company that supplies beacons to track dFADs.

Fishing vessel: Any vessel equipped with a view to commercial exploitation of live aquatic resources.

Support vessel / buoy tender: Any vessel that assists the fishing vessel in its fishing activities. The support vessel is not equipped with fishing gear. In the case of tropical tuna purse seiners, the function of the buoy tenders is to deploy FADs and beacons, to transfer beacons from other vessels to FADs found at sea or in addition to signal the presence of fish to the purse seiners that they are assisting.

Number of operational beacons per vessel at any one time: The sum of the number of operational beacons that are owned by the vessel and the number of common beacons (managed by a purse seiner or a buoy tender) divided by the number of tuna vessels using these common beacons.

Beacon owner: Any individual or company, entity or branch, that pays for the communication service of a beacon associated with a FAD and/or that is authorised to receive information from the beacon (position, echosounder data) as well as request its activation and/or deactivation.

Floating object: Any natural or artificial floating (i.e. surface or subsurface) object that with no capability of moving on its own. FADs are those floating objects that are manmade and intentionally deployed and/or tracked. Logs are those floating objects that are accidentally lost from anthrophic or natural sources.
FAD set: Setting a fishing gear around a tuna school associated with a FAD.

Reactivation of a beacon: The act of reactivating the satellite communication services by the buoy supplier company at the request of the buoy owner or operator. As in any beacon activation, this procedure can only take place onboard a purse seine vessel or buoy tender. In addition, activation cannot take place if the beacon has not previously been brought back to port by the owner vessel or another vessel authorised to do so.

Article 4 - Objectives of the French FAD management plan

The French FAD management plan pursues three objectives:

4.1 Improve knowledge on the impacts of FADs

Increased knowledge on the use of FADs and their instrumented beacons will enable better assessment of potential impacts and definition of suitable management measures.

Section II of the management plan describes the methods used to track the use of FAD and their instrumented beacons.

4.2 Control the use of FADs and their instrumented beacons

For French vessel owners, the most effective management measure to reduce all the negative impacts of FAD use is to limit their use. These impacts include, among others (1) an increase in the fishing efficiency of purse seiners, (2) potential reduction in productivity of yellowfin and bigeye tuna stocks in the Atlantic Ocean due to catches of juveniles of these two species being taken and (3) impacts of FADs on the ecosystems described in paragraph 4.3.

Section III of the management plan establishes the conditions concerned with limitation of use as well as the methods to monitor the numbers of operational beacons.

4.3 Reduce the impacts of FADs on ecosystems

In addition to the reduction of potential impacts as a result of limitation of the number of FADs, complementary measures are needed to reduce the impacts of FADs on ecosystems in terms of : (1) catches of yellowfin and bigeye juveniles, bycatch and incidental catches of sensitive species, (2) ghost catches of sensitive species such as turtles and sharks (3) pollution related to and grounding of lost FADs.

Section IV of this management plan sets out the solutions implemented to reduce these impacts as well as the methods used to verify their implementation.

Chapter II – Measures to improve knowledge on the use and impacts of FADs

Article 5 – Monitoring of activities on floating objects and their instrumented beacons

5.1 Types of activities on floating objects and on their instrumented beacons

The objective of monitoring activities on FADs and on their instrumented beacons is twofold:

(i) To assess the contribution of these devices to the fishing effort of tuna purse seiners in order to estimate the impact of this fishing method on tropical tuna stocks.

(ii) To assess the contribution of FADs to the modification and/or alteration of the ecosystems in which these devices are present.

Definitions consistent with these scientific objectives have been established within the framework of the European project CECOFAD. These definitions are also included in **Table 1** and conform with Annex 3 of ICCAT Recommendation 19-02.

These definitions distinguish between FADs in a strict sense (objects/structures/devices specifically introduced into water by purse seiners and their buoy tenders to aggregate tropical tunas), and logs (other types of objects / structures capable of aggregating fish – of natural origin such as branches or anthropic origin such as plastic debris).

Table 1. Types of floating objects (CECOFAD classification).

Type	Material	Code	Name	Example (s)
FAD	Natural and / or artificial	dFAD	Drifting FAD	Drifting bamboo raft
	Natural and / or artificial	aFAD	Anchored FAD	Anchored floating platform
LOG	Artificial	FALOG	Artificial log related to fishing activities	Net, hawser
	Natural and / or artificial	HALOG	Artificial log resulting from other human activities	Wooden plank, plastic debris
	Natural	ANLOG	Natural log of animal origin	Carcasses, whale shark
	Natural	VNLOG	Natural log of plant origin	Branches, algae

These definitions also explicitly separate activities on floating objects from activities on their instrumented beacons to facilitate reporting by vessels. These definitions are included in **Table 2**. Several successive activities can be carried out on the same floating object and each of these activities must be reported in the logbook.

Table 2. Types of activities on floating objects and their beacons (CECOFAD classification).

Type	Activity	Description
FLOATING OBJECT	Deployment	Deployment at sea of a new FAD. By definition, there is no deployment of logs.
	Strengthening	Consolidation of a floating object to strengthen its floatability.
	Visit	Visit to a floating object without fishing, in particular to assess the quantity of biomass aggregated under the object.
	Fishing	Fishing on a floating object.
	Recovery	Recovery of a floating object by the (one of the) owner vessel(s).
	End of use	End of use of a floating object due to its deteriorated state or its drifting outside of the active fishing area. It is prohibited to abandon a FAD even if deteriorated and without a beacon.
	Loss	End of tracking of a floating object unrelated to its appropriation by a vessel other than the owner vessel(s).
BEACON	Deployment	Deployment of a buoy on a floating object. This activity can also be called "marking" of a floating object.
	Transfer	Change of beacon on a floating object belonging to another vessel (replacement of beacon with a beacon of the vessel).
	Visit	Mere visit to a floating object with a beacon.
	Recovery	Recovery of a beacon on a floating object drifting at sea. It is prohibited to abandon a FAD without a beacon at sea and it is encouraged to recover a log if there is a risk of pollution.
	End of transmission	Voluntary cease of transmission of a remote beacon at the request of the vessel or vessel owner.
	Loss	Involuntary cease of transmission of a beacon following appropriation of the floating object by another vessel or due to a technical fault of the beacon.

5.2 Reporting of activities on floating objects and on their instrumented beacons

The master of a fishing vessel or a support vessel records in the logbook the activities carried out on floating objects and on their instrumented buoys in accordance with the categories described in **Tables 1 and 2.**

The master of a fishing vessel also records in the logbook for each fishing operation on a floating object or on a free school the tonnage caught by species (tuna targeted or bycatch).

For each of these activities, the following information is collected in the logbook:

- Vessel (name and registration number);
- Date (DD/MM/YYYY);
- Position (latitude, longitude in degrees and minutes) ;
- Type of floating object as defined in **Table 2**;
- If appropriate, FAD type. Article 16 describes the dimensions and materials of the floating part and submerged part of the FAD authoritised for the French fleet;
- Size / presence of meshing on the surface of the floating object and in the submerged part;
- Type of activity or sequence of activities on the floating object as defined in **Table 3**;
- Beacon type (make and model) and identifier, failing that, ownership of the beacon;
- In the case of a beacon transfer, beacon type and identifier or failing that, ownership of the beacon for the withdrawn beacon and for the deployed beacon;

- Type of activity or sequence of activities on the floating object as defined in **Table 3**;
- Catches by species.

Annex III details the structure of the logbook used by French purse seiners and their buoy tenders in 2021. The logbook is provided to national scientists at the end of each trip and used for transmission of information to the SCRS in the required format through form 3 FA.

Chapter III – Measures to limit the use of the number of FADs and their instrumented beacons

Article 6 – FAD identification and marking

Any FAD introduced into the water by a French tuna purse seiner or a buoy tender is identified by the serial number of the beacon that is associated with it. This number must be visible without having to remove the beacon from the FAD. It should be designed to withstand the submersion time of the beacon and remain readable throughout the lifetime of the beacon.

Article 7 – FAD without a beacon

It is prohibited to deploy or abandon a FAD at sea without a beacon.

Article 8 – Prohibition of HF beacons

To ensure independent control of operational beacons and to limit the loss of FADs linked to beacons whose positions are not known remotely, only beacons that transmit their position via the GPS system are authorised. HF beacons are prohibited.

Article 9 – FAD ownership

The owner or operator of the vessel whose beacon is on the floating object is the owner, even if the vessel did not introduce the floating object into the water.

Article 10 – Limitation of the number of operational beacons

In accordance with ICCAT Recommendation 19-02;

Considering that limitation of the number of active beacons per vessel at any one time enables effective limitation of the number of FADs at sea;

Considering that, to ensure responsible and sustainable fishing, ORTHONGEL will continue to foster rational use of FADs through the limitation of the number of operational beacons adopted by RFMOs and applicable to all fleets;

Encouraging vessel owners not to increase the number of FADs beyond levels considered to be reasonable by OP in 2012 and not to increase fishing effort under FADs beyond 2018 levels;

The French management plan sets a limits of 300 operational beacons per purse seiner. The limit on the number of purchases of beacons per purse seiner and year is established at 600.

French purse seiners and their buoy tenders will organise deployment of FADs and instrumented beacons so as to never exceed these limits. In the event of repeated overruns, the vessel will be notified and deployment placed under the control of the vessel owner.

Article 11 – Monitoring of the number of operational beacons

Each month, beacon suppliers will transmit no later than three weeks after month end a full list of the operational buoys used by each purse seiner and each day in accordance with the format established in **Table 3**.

Table 3. Format for monthly reporting of operational beacons.

Date	Operational beacons	Activations	Deactivations
2019/01/01			
2019/01/02			
2019/01/03			
…			
2019/01/30			
2019/01/31			

This report will be extracted from the operating system of each beacon supplier who will certify that the data reported tally with the activation / deactivation reports provided by the central server system.

Transmitting beacons will be recorded as operational (at least one position transmitted in the 24 hour period considered) as well as drifting (speed greater than 0 knots and less than 6 knots).

Beacons that are shared by several purse seiners will be divided by the number of purse seiners receiving information (position, echosounder report) from the beacon.

Recommendation 19-02 provides for monitoring of operational beacons for purse seiners, no beacon can be attributed to a support vessel within the context of this monitoring. All the beacons that have been activated and deployed by support vessels shall be recorded in the monthly reports on operational beacons of at least one purse seiner.

Article 12 – Prohibition on remote activation of beacons

To prevent temporary deactivation followed by reactivation of some beacons so that they are not recorded as operational, remote activation or reactivation by a vessel, by the vessel owner or by the vessel operator is prohibited. A beacon can only be activated or reactivated onboard a purse seiner or its buoy tender via the beacon supplier's software. **Figure 1** defines the only cycle of beacon use is authorised within this context.

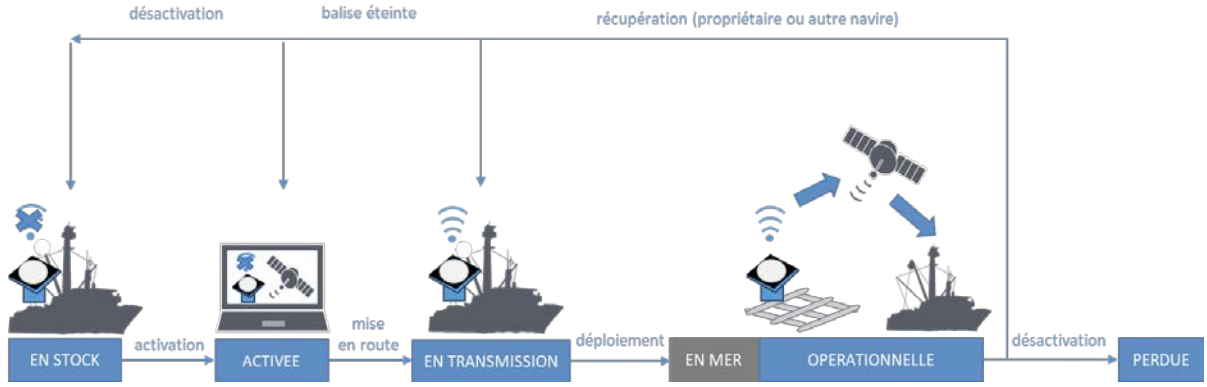

Figure 1. Cycle of beacon use that is authorised under the French FAD management plan.
Verification of the distance between the vessel and beacon at the time of first transmission following activation or reactivation will be carried out based on information prepared by the beacon suppliers as defined in **Table 4**.

Table 4. Format for reporting activation of beacons.

Information	Objective / Description	Format
Beacon identifier	Identical to that of the logbook	
Beacon serial number	Identifier provided by the supplier	
Owner vessel	Vessel with active beacon	
Vessel to which the beacon has been allocated	Vessel(s) tracking the beacon	
Buoy tender	Beacons activated by a support vessel	
Date of activation	Start of beacon use	UTC
Vessel position at activation	Latitude and longitude	Decimal degrees
Date of first transmission		UTC
Beacon position on first transmission	Latitude and longitude	Decimal degrees
Vessel position on first transmission	Latitude and longitude	Decimal degrees
Date of deactivation	End of beacon use	UTC
Beacon position on last transmission		UTC
Vessel position on last transmission		Decimal degrees

Vessel position reported by the beacon supplier will be obtained via the antenna of the supplier's software. Verification of the accuracy of these reports will be carried out through comparison with the VMS.

Article 13 – Supervision of buoy tenders and other devices to aid management of number of FADs

FAD management can be ensured by buoy tenders on the following conditions:

- Inclusion in the specific ICCAT records;
- Lights must not be used by these vessels (aerial or underwater) for the purpose of favouring fish aggregation.
- A buoy tender must serve at least two designated purse seiners that are not associated with another support vessel.

It is also prohibited for fishing vessels or buoy tenders, to use helicopters and/or drones from onboard.

Article 14 – Onboard and electronic observers

Fishing under a floating object is authorised provided that the purse seiner has an onboard observer or a functional electronic observation system capable of verifying the type of operation, species composition and fishing activities.

Chapter IV – Measures to reduce FAD impacts on ecosystems

Article 15 – Non-entangling FADs

FADs constructed and / or deployed by French purse seiners or buoy tenders must not be made from materials with meshing that is more than 6.5 cm.

The following information is systematically collected in the logbook when a FAD is deployed:

- Verification of mesh size at the FAD surface
- Verification of mesh size on the submerged part of the FAD

For any other activity involving a floating object, either a FAD or a log, the presence and size of meshing is assessed in the logbook, at the surface, and if possible, on the submerged part of the floating object. Replacement of high risk mesh (meshing > 6.5 cm) with risk free mesh (absence of meshing) is encouraged.

Article 16 – FAD structure and dimensions

Figures 2 and 3 describe the dimensions and materials authorised for construction of French FADs in 2021.

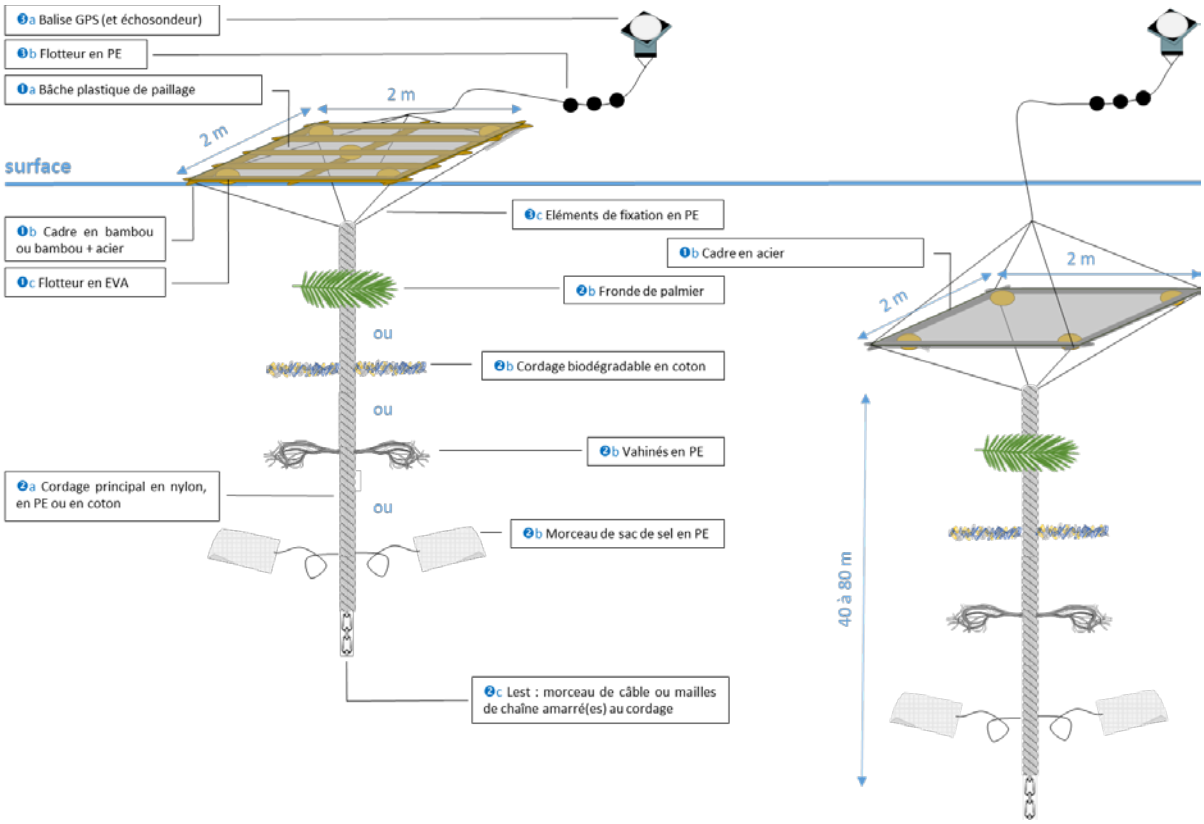

Figure 2. Structure of French FADs with a raft above water (left) and submerged (right).

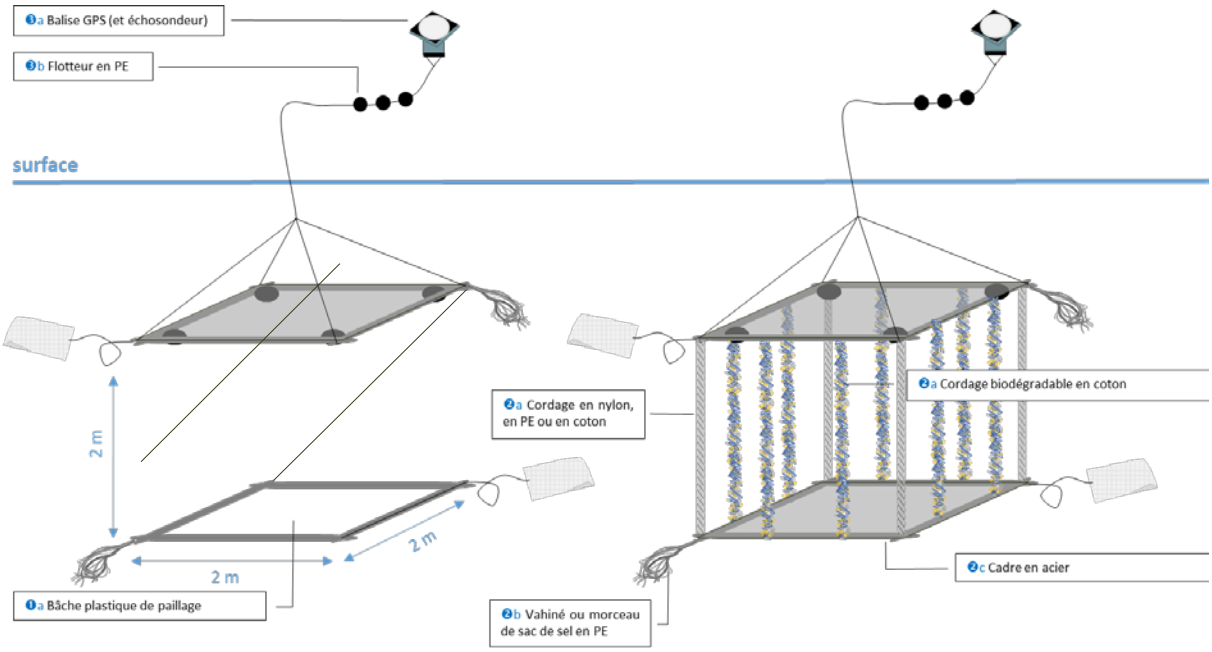

Figure 3: Structure of French FADs with a cage and canvas panels (left) or rope curtains (right).

For each activity on a FAD, the master of the fishing vessel or support vessel records the FAD type in the logbook. Since structure and materials can differ between tropical tuna purse seiners of the Atlantic Ocean, **Table 5** describes the possible FAD types.

Table 5. FAD types in the Atlantic Ocean.

	Surface visibility		**Main structure**				
			Form		**Materials**		
	Above water	Stealth	Raft	Cage	Bamboo	Metal	Plastic
French above water bamboo FAD	✓	×	✓	×	✓	×	✓
French above water metal FAD	✓	×	✓	×	×	✓	✓
French above water bamboo-metal FAD	✓	×	✓	×	✓	✓	✓
French stealth FAD	×	✓	✓	×	×	✓	✓
French cage FAD	×	✓	×	✓	×	✓	✓
Spanish above water bamboo FAD	✓	×	✓	×	✓	×	✓
Spanish above water metal FAD	✓	×	✓	×	×	✓	✓
Spanish above water bamboo-metal FAD	✓	×	✓	×	✓	✓	✓
Spanish above water plastic FAD	✓	×	✓	×	×	×	✓
Spanish stealth FAD	×	✓	×	✓	p	✓	✓
Spanish cage FAD	×	✓	×	✓	p	✓	✓
Korean FAD	✓	×	✓	×	✓	p	✓

✓: The FAD is constructed with this structure or its main structure (raft or cage) contains this material / ×: The FAD is not constructed with this structure or its main structure does not contain this material / p: The FAD can potentially contain this material.

Article 17 – Biodegradable FADs

All non-biodegradeable materials used in the construction of FADs must be replaced by biodegradable materials.

The following definition applies for biodegradable materials:

- Decompose in normal conditions of FAD use (temperature, salinity, etc.).
- Non-toxic for the marine environment (no micro-particles or toxic products as a result of decomposition).
- Enable the FAD to be used between 8 and 10 months.

In 2021, research on biodegradable materials that meet these specifications will continue through two different projects:

- ORTHONGEL project – testing materials in controlled conditions
- FIP EASTI/ISSF project – participation in monitoring of prototypes of biodegradable FADs deployed by the Ghanian tropical tuna purse seine fleet

An update on the work carried out by ORTHONGEL will be presented to the Subcommittee on Ecosystems and Bycatch or at the annual meeting of the ICCAT Tropical Tunas Species Group.

Article 18 – Recovery of FADs and their buoy tenders

It is encouraged to recover FADs and their beacons to prevent to the maximum extent the risks of plastic pollution in the sea and grounding of FADs. It is prohibited to abandon a FAD without a beacon at sea and it is encouraged to recover logs if there is a risk of pollution.

In addition, the positions of all instrumented buoys used by French purse seiners and their buoy tenders will continue to be communicated to the Research Institute for Development (IRD). These positions could contribute, among others, to research work on FAD grounding risks according to their deployment area or to the organisation of FAD recovery campaigns at sea.

Article 19 – Use of lights on floating objects

It is prohibited to use lights (aerial or underwater) on floating objects or their instrumented beacons.

Article 20 – Closure of activities on FADs / floating objects

To reduce catches of juvenile yellowfin and bigeye tuna, it is prohibited to fish on FADs / floating objects from 1 January to 31 March 2021. It is only authorised to fish on free schools and on logs not equipped with an instrumented buoy.

In 2021 and 2022, it is prohibited to deploy FADs and instrumented beacons from 16 December 2020 to 31 March 2021.

Article 21 – Policy on reduction and use of bycatch

Provisions to limit the number of FADs (articles of Section III) will help to reduce bycatch.

It is encouraged to maintain onboard and trade bycatch.

Article 22 – Consideration of interactions with other gears and conflicts of use

The provisions to limit the number of FADs (articles of Section III), to reduce the impacts of lost FADs (articles 15 to 18), and on close of activities on floating objects (article 20) will help to:

- Reduce the risk of a decrease in productivity of yellowfin and bigeye tuna stocks linked to catches of juveniles of these two species.
- Reduce the risks connected with lost FADs of entanglement of sensitive species, grounding of FADs, pollution or collision at sea.

Annexe I

Conformité du plan de gestion français des DCP avec les dispositions relatives aux objets flottants et à leurs balises de la recommandation CICTA 19-02

Article de la recommandation 16-01	**Article du plan de gestion**
24. Définitions	3.5
25. et 26. Fermeture des activités sur DCP pour les senneurs et leurs baliseurs	20
27. Interdiction de déploiement des DCP pendant 15 jours avant la fermeture	20
28. a) 300 bouées opérationnelles par senneur	10 à 13
30. Données historiques sur les opérations sur DCP	5, 16
30. Encouragement à ne pas augmenter l'effort sous DCP par rapport à 2018	10
31. Autorisation de pêche sous DCP à condition qu'il y ait un observateur à bord ou électronique	14
32. Effets des navires de soutien sur les captures (déclaration du lien baliseur – senneur)	2
34.i) amélioration des connaissances sur les caractéristiques des DCP	5, 16
34. ii) gestion du déploiement et de la récupération des DCP, gestion de l'activation des bouées et des pertes	12, 18
34. iii) réduction des impacts des DCP sur les écosystèmes	15 à 22
36, 37 et 38. Annexes 2, 3 et 4. Obligations déclaratives dans les livres de bord et au SCRS	5, 16
39. et Annexe 5. DCP biodégradables	17
64. Transmission des données aux scientifiques nationaux	16
65. Travaux scientifiques sur les DCP	5, 14, 16

Annexe II

Conformité du plan de gestion français des DCP avec l'annexe 1 de la recommandation CICTA 19-02

Information à fournir		**Article du plan de gestion**
Description	a) types de DCP	16
	b) types de balise / bouée	16
	c) nombre maximum de DCP devant être déployés par senneur et par type de DCP et nombre de bouées opérationnelles par senneur à un moment donné	10, 11, 12, 13
	d) distance minimum entre les DCPa	Non applicable
	e) réduction des prises accessoires et politique d'utilisation	21
	f) considération des interactions avec d'autres types d'engins	22
	g) déclaration ou politique à suivre sur la propriété des DCP	9
	h) utilisation de navires de soutien, dont ceux battant le pavillon d'autres CPC	2, 13
Accords instituionnels	a) responsabilités institutionnelles pour le plan de gestion des DCP	
	b) processus de demande d'autorisation du déploiement des DCP	10
	c) obligations des armateurs et des capitaines en ce qui concerne le déploiement et l'utilisation des DCP	5, 10, 16
	d) politique de remplacement des DCP	5
	e) obligations de déclaration additionnelles au-delà de la présente recommandation	11, 12
	f) politique en matière de résolution des conflits en ce qui concerne les DCP	22
	g) détails de toute fermeture de zone ou de période, par ex. eaux internationales, couloirs maritimes, proximités de pêche artisanale, etc	20
Spécifications et exigences en matière de construction des DCP	a) caractéristiques de la conception des DCP (description)	16
	b) exigences en matière d'éclairage	19
	c) réflecteurs par radar	Non applicable
	d) distance visible	Non applicable
	e) marques et identifiant du DCP	5, 16
	f) marques et identifiants des radiobalises	Non applicable (8)
	g) marques et identifiants des balises échosondeur	5, 6
	h) transmetteurs par satellite	5, 6
	i) recherche sur les DCP biodégradables	17
	j) prévention des pertes et de l'abandon des DCP	5, 16, 18
	k) gestion de la récupération des DCP	18
	Période applicable pour le plan de gestion des DCP	2
	Moyens pour le suivi et l'examen de la mise en œuvre du plan de gestion des DCP	5, 11, 12, 13, 14, 16, 17

Annexe III

Structure du livre de bord utilisé par les senneurs français et leurs baliseurs en 2021

DATE	HEURE	LATITUDE chaque calée ou à midi	LONGITUDE chaque calée ou à midi	ZEE	T°C mer	VENT		CALEE			CAPTURE ESTIMEE (en tonnes)																	
						VIENTO		LANCE			ESTIMATION DE LA CAPTURA (en toneladas)																	
						WIND		FISHING SET			ESTIMATED CATCH (metric tons)																	
FECHA	HORA	LATITUDE cada lance o mediada	LONGITUD cada lance o mediada	ZEE	T°C mar	Direction / Direccion / Direction Degrés / Grados / Degrees	Vitesse / Velocidad / Speed Nœuds / Nudos / Knots	Portante / Positivo / Successful	Nulle / Nullo / Nil	Type de calée / Lance typo / Fishing set type	1				2		3				4		5			6		
											ALBACORE				LISTAO		PATUDO				GERMON		AUTRES ESPECES			REJETS		
											RABIL				LISTADO		PATUDO				ALBACORA		OTRAS ESPECIES			DESCARTES		
DATE	TIME	LATITUDE each set or at midday	LONGITUD each set or at midday	EEZ	T°C sea						YELLOWFIN				SKIPJACK		BIGEYE				ALBACORE		OTHER SPECIES			DISCARDS		
											YFT +10		YFT-10		SKJ		BET +10		BET - 10		ALB		OTH			DSC		
											Taille	Capture	Taille	Capture	Taille	Capture	Taille	Capture	Taille	Capture	Taille	Capture	Espèce	Taille	Capture	Espèce	Taille	Capture
											Tailla	Captura	Tailla	Captura	Tailla	Captura	Tailla	Captura	Tailla	Captura	Tailla	Captura	Especie	Tailla	Captura	Especie	Tailla	Captura
											Size	Catch	Size	Catch	Size	Catch	Size	Catch	Size	Catch	Size	Catch	Species	Size	Catch	Species	Size	Catch

ASSOCIATION							OBJET FLOTTANT				BOUEE INSTRUMENTEE					COMMENTAIRES
ASSOCIACION							OBJETO				BOYA					COMMENTARIOS
ASSOCIATION							FLOATING OBJECT				INSTRUMENTED BUOY					COMMENTS
Banc Libre / Banco Libre / Free School	Objet flottant / Objeto / FOB	Balise / Baliza / Beacon	Baliseur / Barco de appoyo Support vessel	Requin baleine / Tiburon ballena Whale shark	Baleine / Ballena / Whale	Oiseaux / Aves / Birds	ACTIVITE SUR L'OBJET	TYPE D'OBJET	TYPE DE DCP DERIVANT	RISQUE DE MAILLAGE	ACTIVITE SUR LA BOUEE	BOUEE DÉJÀ PRESENTE		BOUEE DEPLOYEE		Problèmes divers Détails sur les prises accessoires Taille du banc Autres associations Autres remarques
										RIESGO DE ENMALLAMIENTO		BOYA ANTIGUA		BOYA NUEVA	
							ACTIVIDAD SOBRE EL OBJETO	TIPO DE OBJETO	TIPO DE DCP	ENTANGLING RISK	ACTIVIDAD SOBRE LA BOYA	BUOY ALREADY ON THE FOB		DEPLOYED BUOY		
										En surface Parte surperficial Surface		TYPE	NUMERO	TYPE	NUMERO	
										Sous la surface Parte sumergida Underwater						
							FOB ACTIVITY	FOB TYPE	DFAD TYPE		BUOY ACTIVITY	TIPO	NUMERO	TIPO	NUMERO	
												TYPE	ID	TYPE	ID	

MANAGEMENT PLAN FOR FISH AGGREGATING DEVICES (FAD) – 2021 – EU-SPAIN

1. Basis and background of this plan

The current fisheries regulations contain the following provisions which warrant development of a management plan for Fish Aggregating Devices (FADs) used by the high-seas purse seine fleet targeting tropical tunas:

- The Straddling Fish Stocks and Highly Migratory Fish Stocks Agreement (United Nations, 1995) aims to ensure long-term conservation of the stocks within its scope of application and their sustainable exploitation.

- The Code of Conduct for Responsible Fisheries of the United Nations Food and Agriculture Organization (FAO): as regards fisheries research, it establishes the obligation to collect reliable data for proper assessment of the fisheries, and to conduct studies on fishing gear selectivity and its environmental impact, and to promote the results of research as the basis for establishment of management objectives.

  The FAO Code of Conduct also indicates "fishing gear should be marked in accordance with national legislation in order that the owner of the gear can be identified. Gear marking requirements should take into account uniform and internationally recognizable gear marking systems". Lastly, and in accordance with the same code, "States should cooperate to develop and apply technologies, materials and operational methods that minimize the loss of fishing gear and the ghost fishing effects of lost or abandoned fishing gear".

- Regulation (EU) 1380/2013, of the European Parliament and Council, of 11 December 2013, on the Common Fisheries Policy, amending the Regulations (EC) No. 1954/2003, and (EC) No. 1224/2009, and repealing the Regulations (EC) No. 2371/2002 and (EC) No. 639/2004 of the Council and Decision 2004/585/EC of the Council.

- Law 3/2001 on Maritime Fisheries of 26 March: in accordance with article 3, care shall be taken to ensure balanced and responsible exploitation of fisheries resources, favouring their sustainable development, and to adopt specific measures to protect, conserver and regenerate these resources and their ecosystems and foster oceanographic and fisheries research.

In addition to update of the current regulations, the experience accumulated from approval of the first FAD management plan in October 2010, as well as the new international provisions that have arisen in the different RFMOs, have necessitated review and update of the initial Plan.

2. Scope of application of this plan and responsibility of the Administration

This plan is aimed at Spanish-flagged tuna purse seine freezer vessels operating in the Indian, Atlantic and Pacific Oceans, targeting tropical tunas as well as the supply vessels supporting them.

It will apply when fishing activities are carried out in waters regulated by the RFMOs, as well as under Fishing Agreements signed between the EU and Third Countries, without prejudice to the measures adopted within each area.

The Secretariat General for Fisheries will be responsible for ensuring proper implementation of this plan.

3. Objectives

The objectives of this plan are as follow:

- Improve information gathering for development of scientific advice.
- Contribute to enhance knowledge of catch composition of FAD sets.
- Increase knowledge of these devices with regard to their technical features and their possible impact on ecosystems.
- Establish information-sharing mechanisms among operators, scientists and administrations, in order to gain better knowledge of the progress made in this field and the potential implications.
- Monitor fishing on objects in accordance with the obligations established within the RFOs.
- Develop management proposals based on the results obtained.

4. Definitions

Definition of FAD (Fish Aggregating Device) in IATTC: "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." (C-2018-05)

Definition of FAD in WPCFC:
The definition of FAD has not been agreed; it was attempted at the 16th Annual Commission of WCPFC in 2019.

Definition of FAD in IOTC:
"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." (19/02)

Definition of FAD in ICCAT:

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

ii. "Fish-Aggregating device (FAD): 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 either be anchored (aFADs) or drifting (dFADs)."

- FAD related activities
    - Deployment: fishing activity that involves deployment at sea of some FAD.
    - Checking: fishing activity that involves tracking a FAD previously deployed to carry out maintenance tasks or to verify aggregation of fish around the device.
    - Set: fishing manoeuvre to catch schools of fish associated with a FAD.
    - Collection: fishing activity that involves collection at sea of some FAD.
    - Change of beacon (this activity must be preceded by a set or a check).
    - Loss: the last date and position prior to loss of contact must be reported.
- Beacon/buoy: beacon/buoy means any artefact whose objective is location or tracking of a FAD.
- Types of beacon/buoy:

- GPS beacon: beacon fitted with a GPS system
- Radio beacon: beacon fitted with a radio system
- Visual beacon: beacon without any electronic device only identifiable by sight
- GPS beacon + sounder

- Non-entangling FAD: fish aggregating devices that are designed to prevent "ghost fishing" or catch of non-target species, such as shark or turtles.

5. Obligations of the RFOs as regards Fish Aggregating Devices (FADs)

Below are listed the measures adopted in each of the tuna RFOs that directly affect the tuna purse seine freezer fleet operating with FADs:

5.1 WCPFC:

- Conservation and management measure for bigeye, skipjack and yellowfin tuna (CMM 2010-01 through which CMM 2018-01 remains in force until 15 February 2022). It includes direct FAD management measures.
- Conservation and management measure prohibiting fishing on data buoys (CMM 2009-05).
- Conservation and management measure on high seas FAD closure and catch retention (CMM 2009-02).
- Conservation and Management Measure e to address impact of purse seine fishing activity on cetaceans (CMM 2011-03).

5.2 IOTC:

- Resolution 19/02, procedures on a FADs management Plan.
- Resolution 18/01, on a yellowfin stock recovery plan, which supplements the provisions of Resolution 17/08 on FADs.
- Resolution 18/04, on BIOFAD experimental project.
- Resolution 15/09, on the establishment of a FAD Working Group to evaluate the consequences of these devices and their technological evolution, to inform and advise on future management options related to FADs.
- Resolution 15/02, on IOTC statistical data, under which the parties must report quarterly the number of FADs deployed per vessel, in addition to their position, dates, FAD type and identifier, in accordance with Resolution 15/08.
- Resolution13/04, on the conservation of cetaceans.
- Resolution 13/05, on the conservation of whale sharks.

5.3 IATTC:

- Resolution C-19-01, amending Resolution C-18-05, on FAD data collection and analysis.
- Resolution C-20-05 on conservation and management measures for tropical tunas in 2021, which extends the conservation and management measures established in Resolution C-17-02 to 2021.
- Resolution C-20-06, on tropical tunas conservation in the Eastern Pacific Ocean during 2021 pursuant to Resolution C-20-05.

5.4 ICCAT:

- Recommendation 19-02, replacing Recommendation 16-01 on a multi-annual conservation and management plan for tropical tunas.
- Recommendation 16-02 to establish an Ad Hoc Working Group on FADs.

6. Identification of FADs

Each buoy shall have a sequence of characters that shall serve as an identifier and that shall be the same over its useful life. This identifier shall be easily legible during its FAD activities.

This identified shall appear on the FAD inventory and logbook.

Any modification shall be communicated indicating the date of change and the previous identification of the FAD or beacon.

In the case of adoption of a harmonised identification system within an RFO, the existing identification shall be changed, if appropriate, and the date of change and previous identification of the FAD or beacon shall be communicated.

7. Registration and reporting of FAD information: Inventory and Specific Activity Register (FAD logbooks)

Operators send to the General Secretariat of Fisheries information on all FAD related activity (deployment, sets, modifications, change of beacon, etc.), completing the relevant form (Annex I. "FAD logbook" template).

In addition, the use of a FAD entails completion of certain information in the corresponding section of the vessel's electronic fishing logbook.

8. Monitoring of FADs

Vessels must conserve monitoring information for each FAD fitted with a satellite beacon. In addition, efforts must be made to conserver the information obtained through other types of beacons through observation, radio and other devices.

There shall be no obligation to communicate any information that may have been stored. However, the vessel owner shall be obliged to provide this information to the General Directorate of Fisheries Resources in the following cases.

- Carrying out of specific scientific studies. A report shall be sent to the operators reflecting the objectives, duration and area of study, periodicity and format for submission of information. This information shall be sent to the scientists who are responsible for the study.

- For any control purpose. The operator concerned shall be informed of the reason for the request and the information requested shall be sent to the person indicated by the General Directorate of Fisheries Resources.

9. Measures to prevent loss of FADs

Vessel operators shall prevent, as far as possible, loss of FADs at sea.

In the event of a loss or impossibility of recovery of a FAD (areas or seasons closed to fishing), operators shall record in the Specific Activity Register, its last known date and position and in the quarterly update shall indicate its status of "lost".

10. Measures to mitigate the catch of juvenile tuna and non-target species

Since 30 June 2015 it is prohibited to carry out any activity on entangling FADs.

In addition, progress shall be sought in the use of more selective methods to prevent the catch of juvenile fish and associated catches, such as sorting grids incorporated in the purse seine to reduce catches of juvenile tuna and associated species and the use of acoustic methods (sounders, echosounders) that favour more selective fishing, identifying non-desired species or sizes, prior to the set.

The parties involved in this plan may propose carrying out pilot actions in order to make progress on any of the aspects described above.

11. Regulation of FAD fishing

FADs shall be activated exclusively onboard vessels.

11.1 WCPFC

- Temporary closure:

Since 6 February 2018, it is prohibited to fish on FADs between July 1 and September 30 for all purse seiners fishing in the EEZ or high seas. In addition, for high seas, an additional measure has been established to these three months of closure, either April and May, or November and December) for all purse seiners engaging in fishing.

Moreover, during the closure period, the following measures shall be observed for engaging in fishing activities.

- Sets cannot be made within 1 nautical mile of the FAD.
- It is forbidden to catch fish aggregated under a boat or move these fish, including through use of lights and mist for attracting them.
- FADs and beacons can only be withdrawn following authorization, and provided that they are kept on board until landing or the end of the closure and that no set is made within 7 days or within 50 nautical miles around the point of withdrawal of the FAD.
- In addition, in relation to the previous point, two vessels cannot cooperate to avoid this measure as it is prohibited for any vessel to carry out a set within a nautical mile around the FAD withdrawal point in the following 24 hours.

For monitoring of this closure, operators shall submit the information available on the satellite tracking of all FADs and beacons managed by the vessels present in the area of the WCPFC weekly during the closure period.

- Limitation of the number of buoys:

No more than 350 FADs can be deployed with active instrumental buoys, (clearly identified and equipped with a tracking system).

For monitoring of this measure, each vessel operating in the WCPFC area shall send a certificate from the buoy supplier company indicating the number of active buoys per vessel.

11.2 IATTC

It is prohibited to carry out sets on whale shark.

- Time and space closure:

A closure of 72 days is established. It applies every year in one of the following periods:

- From 00:00 hours on 29 July to 24:00 hours on 8 October,
  or,
- From 00:00 hours on 9 November until 24:00 hours on 19 January of the following year.

The vessel owners shall communicate the period chosen before 30 March, indicating the port where they intend to dock during the closure.

During this period the blue box must be switched on. In the case the vessel must move from the port indicated, a previous request must be made, indicating the reason, route, port of destination and dates of the movement.

In addition, purse seiners may not carry out any fishing activity, from 00:00 hours on 9 October to 24:00 hours on 8 November each year, within the area of 96º and 110º W and between 4ºN and 3ºS, known as the "corralito".

During this period, only innocent passage will be authorized, following a request by the interested party sufficient time in advance.

During any closure period, vessels may not deploy FADs during the 15 days prior to commencement of the selected closure period. In addition, all vessels must recover within 15 days prior to commencement of the closure period a number of FADs that is equal to the number of FADs on which sets were made during that same period.

- Limitation of the number of buoys:

No more than 450 FADs per vessel can be deployed. For monitoring of this measure, each vessel operating in the IATTC area shall submit a certificate from the buoy supplier company indicating the number of active buoys per vessel. The information must be sent quarterly to the IATTC Secretariat.

11.3 ICCAT

FAD closure

It is prohibited for purse seine and baitboat vessels that fish for or carry out activities to support fishing for bigeye, yellowfin and skipjack in association with FADs on the high seas or in EEZs throughout the Convention area to do so for periods of time, which in 2021 is from 1 January until 31 March. Drifting FADs shall not be deployed during the 15 days prior to the start of the closure period.

The FAD closure shall apply on any Fishing Aggregating Device, including those without a beacon.

Limitations on FADs

2021: 300 FADs per vessel

The total fishing effort on FADs shall not be increased with respect to the 2018 level.

Sets may only be made on floating objects if the fishing vessel carries onboard an observer or a functioning electronic monitoring system that is capable of verifying the set type, and the species composition.

11.4 IOTC

- Limitation of the number of buoys:

The use of instrumental buoys is mandatory on all drifting FADs, all other buoys are prohibited, such as radio buoys.

No vessel may exceed 300 active instrumental buoys per vessel at any time. In addition, the number of instrumental buoys acquired by each vessel is set at a maximum of 500.

For monitoring of this measures, each vessel shall submit a certificate from the buoys supplier company or from a scientific institute containing the following information:

- Number of active buoys per vessel
- Number of instrumental buoys per vessel acquired in the campaign.

12. Control of the regulatory measures of the RFMOs

12.1 Control of the limitation on number of buoys

Since 2014, the sector has agreed to control the number of FADs and since September 2015, AZI has carried out these control tasks on the basis of a contract.

To ensure compliance with the number of FADs, the General Secretariat for Fisheries established in 2019 in the annexes to the Temporary Fishing Licenses, submission by the sector of certificates from a Scientific Institution with information on the number of instrumental buoys active and acquired per vessel. It also required the annual certificates corresponding to the number of FADs from 2016 for the ICCAT and IOTC areas.

Counting the number of FADs implicitly involves association of each FAD with a buoy since what is counted is the number of instrumental buoys active per day and per vessel.

The main information is supplied by the manufacturers of instrumental buoys who provide a tracking system and daily speed for each of the buoys. AZTI receives this information aggregated by month and with a delay of two months in .csv files with the daily information.

Processing the information implies filtering data to exclude records that do not correspond to data from active buoys, deployed at sea or within the scope of coverage of each RFO.

In addition, AZTI has introduced other control mechanisms that include analysis of deactivated buoys in port, cross-checking of data as from activation of a buoy and tracking of the vessel via VMS, and with FAD logbooks and observer information.

Annex II provides detailed explanations on the methodology used to control the number of FADs.

12.2 Control of FAD area and time closures

The General Secretariat of Fisheries carries out the control of the FAD closures in the Fisheries Monitoring Centre through VMS systems that are incorporated into vessels and operate within the area of the RFOs and enable location of vessels in real time.

13. Control and monitoring measures of this plan

The relevant authorities may carry out documentary controls in relation to the provisions contained in this plan, and may request, if necessary, any information included herein.

The Spanish Institute of Oceanography (IEO), as the Spanish scientific authority in this domain, shall be responsible for processing and monitoring the information provided by the operators, and shall be authorised to issue monitoring reports on this plan and propose any measures that it may consider appropriate to improve operation of the plan.

Moreover, the General Secretariat for Fisheries may establish, in coordination with the IEO, involvement of other scientific bodies to achieve the objectives established in this plan.

14. Measures to safeguard confidentiality of the information supplied by operators

The information supplied by operators shall be treated as confidential at all times, and its use, if necessary, shall be restricted to scientific or monitoring purposes only.

Operators may protect documents with passwords which shall be communicated to those designated as responsible for managing the information submitted.

The General Secretariat for Fisheries undertakes not to disclose this sensitive information, other than for the aforementioned purposes, without the express consent of the vessel owners.

15. Amendment of this plan

This plan shall be amended annually to incorporate the provisions of each of the RFOs.

Annex 1

Anexo 1

:::REGISTRO DE DCPs y BALIZAS:::

as al correo: DCP@ieo.es

Matrícula:

				Baliza			Posición			Estructura flotante					Rabo									Capt
Fecha	Hora	Origen	¿Baliza?	Modelo	Identificación numérica	Actividad	Lat	Lon	Tipo de DCP	Material / Estructura	Flotación	Recubrimiento externo	Malla con luz > 3 cm en el recubrimiento exterior	Dimensiones	Material / Estructura	Añadidos	Lastre	Malla con luz > 3 cm sin 'achorizar'	Calado (m)	Estimación banco (tons)	Captura (tons)			Grupo
DD/MM/AAAA	HH:MM		(S/N)				gg°mm	ggg°mm					(S/N)	aaxbbxcc				(S/N)			SKJ	YFT	BET	
01/12/2016	00:01	Buque1	S	m3i+	100259	Lance	01°00'S	000°50'W	A la deriva	Cañas	Corchos	Malla	S	2x3x0,5	Malla en chorizo	De origen artificial	Aros / Cáncamos	N	20.5	30	10	2	1	Tiburón ballena

Anexo 1

ura accidentales			
En nº ejemp. o peso (t)	N/P	Nº/Peso ejemp. liberados vivos	Observaciones
1	N	1	

:::TABLAS VINCULADAS (no mover ni manipular):::

ORIGEN
Propio
"Nombre buque"
Desconocido
No aplicable

ACTIVIDAD
Despliegue
Comprobación
Lance
Modificaciones sobre objeto anterior
Recogida en el mar
Baja
Recogida en puerto

MODELO
d+
dl+
ds+
dsl+
f7 ó f07
fe7
isd+
isl+
m3i
m3i+
m4i
mds
msi
t
f7 ó f07

DCP		
Material / Estructura	Flotación	Recubrimiento
Cañas	Garrafas	Rafia/Nylon
Metal	Corchos	Malla
Plástico/PVC	Bolos	Sin recubrimiento
Natural	Otro	Otro
Otro		
Mixta		
Baliza sola		

S/N
S
N

Tipo de DCP
A la deriva
Fondeado

RABO		
Material / Estructura	Añadidos	Lastre
Malla en chorizo	De origen natural	Aros / Cáncamos
Malla abierta	De origen artificial	Cable metálico
Malla mixta (con 'velas')	Ambos	Ninguno
Cabos	Ninguno	Otro
Otro		Piedra
		Bloque cemento

N/P
N
P

Campo	Formato	Descripción/Comentarios	Ejemplo
Nº de Viaje	AAAA-nnn	Introducir el número de viaje anual, donde AAAA es el año y nnn es el número de viaje 3 dígitos), entendiendo como viaje a la marea comprendida entre la salida y la llegada a puerto. *Si el viaje se ha iniciado el año anterior, continua con la numeración ya asignada. Sólo es necesario introducir esta numeración al inicio de cada viaje.*	2016-001
Fecha	DDMMAAAA	Día (DD): Dos dígitos (15 p.e.) (*no es necesario el 0 inicial*) Mes (MM): Dos dígitos (06 p.e.) Año (AAAA): Cuatro dígitos (2016 p.e.) *Automáticamente, la fecha aparecerá en formato 'dd/mm/aaaa'.*	28092016
Hora	HHMM	Hora **GMT** (HH): Dos dígitos (12 p.e.) (*no es necesario el 0 inicial*) Minutos (MM): Dos dígitos (08 p.e.) *Automáticamente, la hora aparecerá en formato 'hh:mm'.*	603
Origen		Seleccionar de la lista desplegable en función del origen del DCP con el que se está trabajando (ver **Tabla 0**)	Propio
¿Baliza?	S/N	Seleccionar **'S'** (Sí) en caso de que el objeto con el que se trabaja porte una baliza o **'N'** (No) si carece de ella *Este campo se ha diseñado para registrar de forma más cómoda el encuentro de objetos no balizados, tanto de origen natural como artificial (redes, carroña, hierbas, palés...). En caso de añadirse una baliza o cualquier otro elemento al objeto, insertar una nueva línea con las características del nuevo DCP. (ver Tabla 1 - Modificaciones sobre objeto anterior) (ver hoja de Ejemplos).*	S
Modelo		Seleccionar de la lista deslegable el modelo de baliza (d+, dl+, ds+, dsl+, te7, m3i, m4i ...) En caso de no encontrarse el modelo en la lista, seleccionar **"Otro"** y **sobreescribir** el modelo. Evitar genéricos como: Nautical, Tunabal, Satlink...	ds+
Identificación numérica	número	Anotar el código numérico empleado para la identificación de la baliza (el que se anota habitualmente tras el modelo) sin espacios ni signos en medio.	13448
Actividad		Identificar la actividad realizada sobre el DCP en el cuadro desplegable (ver **Tabla 1** y *hoja de Ejemplos*).	Recogida en el mar
Lat	ggmm	Grados (gg): Dos dígitos (03 p.e.) (*no es necesario el 0 inicial*) Minutos (mm): Dos dígitos (08 p.e.) Comenzar con el **signo '-'** en caso de tratarse de *latitud sur* . Automáticamente aparecerá en la casilla la latitud en formato gg°mm'N/S.	-203 (para 02°03'S)
Lon	ggmm	Grados (gg): Tres dígitos (050 p.e.) (*no son necesarios los 0 iniciales*) Minutos (mm): Dos dígitos (08 p.e.) Comenzar con el **signo '-'** en caso de tratarse de *longitud oeste* . Automáticamente aparecerá en la casilla la latitud en formato ggg°mm'E/W.	5023 (para 050°23'E)

	Campo	Formato
	Tipo de DCP	
ESTRUCTURA FLOTANTE	**Material / Estructura**	
	Flotación	
	Recubrimiento externo	
	Malla con luz > 3 cm en el recubrimiento exterior	S/N
	Dimensiones	aaxbbxcc
RABO	**Material / Estructura**	
	Añadidos	
	Lastre	
	Malla con luz > 3 cm sin 'achorizar'	S/N
	Calado (m)	número

Descripción/Comentarios	Ejemplo
Seleccionar de la lista desplegable el tipo de DCP objeto de la actividad (ver **Tabla 2** y *hoja de Ejemplos*). *NOTA: No es necesario rellenar los campos de características del DCP (estructura flotante y rabo) en caso de DCP fondeado/anclado (buque de apoyo p.e.)*	Fondeado
Seleccionar de la lista desplegable el material que configura estructura flotante (o semisumergida) principal del DCP (ver **Tabla 3**).	Cañas
Seleccionar de la lista desplegable el principal material empleado para la flotabilidad del DCP (ver **Tabla 4**).	Corchos
Seleccionar de la lista desplegable el material empleado para envolver la **parte más superficial** del DCP (ver **Tabla 5**).	Malla
Seleccionar '**S**' (Sí) en caso de que el recubrimiento **más superficial** de la estructura flotante posea una luz de malla superior a 3 cm o '**N**' (No) en caso contrario. *NOTA: En caso de emplearse red con luz de malla > 3 cm como recubrimiento de la parrilla y envolver luego, **en su totalidad**, con malla de ocultación (rafia, lona, malla <3 cm...) seleccionar 'N' (No).*	
Anotar en este campo, los dígitos necesarios para indicar el largo (aa), ancho (bb) y alto (cc) de la estructura flotante del objeto, en **metros**.	2x1x0.3
Seleccionar de la lista desplegable el material/estructura mayoritario empleado para elaborar el rabo del DCP (ver **Tabla 6**).	Malla mixta (con 'velas')
Seleccionar de la lista desplegable el grupo de materiales añadidos a la estructura mayoritaria. *En caso de ser varios materiales de origen natural+artificial, seleccionar el más abundante* (ver **Tabla 7**).	Cintas de colores
Seleccionar de la lista desplegable el material empleado como lastre para el DCP (ver **Tabla 8**).	Ninguno
Seleccionar en esta casilla '**S**' (Sí) en caso de incluir en alguna parte del **rabo** o en algún **añadido,** red con luz de malla > 3 cm sin 'achorizar'.	S
Anotar en esta casilla, con dígitos, la profundidad máxima alcanzada por el DCP.	30

	Campo	Formato	Descripción/Comentarios	Ejemplo
	Estimación banco (tons)	número entero	Anotar en esta casilla, con una cifra única, las **toneladas** de YFT, BET y SKJ estimadas en caso de no realizarse un lance. En caso de detectarse otro tipo de pescado o mancha (pescado de objeto, carnada, basura...), *anotar 0*.	5
Capturas (tons)	SKJ	número	Anotar las capturas de SKJ (*Katsuwonus pelamis*) ingresadas en bodega más los descartes de esta especie, en toneladas.	10
	YFT	número	Anotar las capturas de YFT (*Thunnus albacares*) ingresadas en bodega más los descartes de esta especie, en toneladas.	2
	BET	número	Anotar las capturas de BET (*Thunnus obesus*) ingresadas en bodega más los descartes de esta especie, en toneladas.	1
Capturas accidentales	**Grupo**		Seleccionar en la lista desplegable el grupo de especies capturados. Si hay más de un grupo, anotarlos en las líneas siguientes (*ver hoja de Ejemplos*) (ver **Tabla 9**).	Otros peces
	En nº ejemp. o peso (t)	número	Anotar en número el nº de ejemplares o peso (*en toneladas*) del grupo de especies en cuestión (un número para cada grupo). No es necesario indicar las cantidades por especie, únicamente el total del grupo. **En caso de estimar parte de la captura en peso y parte en número, indicarlo en dos líneas consecutivas.**	0.5
	N/P		Seleccionar '**N**' (número) o '**P**' (peso) según el caso.	P
	Nº/Peso ejemp. liberados vivos	número	Anotar con dígitos el número o peso (*en toneladas*) de los ejemplares del grupo que se hayan liberado vivos. No es necesario indicar las cantidades por especie, únicamente el total del grupo.	0.1

Tabla 1

ACTIVIDAD	Descripción/Comentarios
Despliegue	En caso de efectuarse la plantación de un DCP (**no** para balizado de objeto natural ni para adiciones al objeto visitado, ya que serían *'Modificaciones sobre objeto anterior'*) *(consultar los campos anteriores en esta tabla y la hoja de Ejemplos).*
Comprobación	Siempre que se visite un objeto y **no** haya una **recogida** o un **lance,** independientemente de que haya o no modificaciones posteriores *(ver hoja de Ejemplos).*
Lance	En caso de efectuarse un lance sobre cualquier tipo de objeto. Se añadirá **una línea por cada grupo de especies** que forme parte de la captura accidental (ver Tabla 8), rellenando en las líneas siguientes únicamente los campos referidos a estas capturas accidentales *(ver hoja de Ejemplos).* Si se realizaran modificaciones sobre el objeto sobre el que se ha largado o recogida sin regreso al agua del mismo, se añadirá una línea más identificando la actividad ("Modificaciones sobre el objeto anterior" o "recogida").
Modificaciones sobre objeto anterior	Esta actividad se añadirá en una nueva línea **tras un lance o una comprobación** cuando: (i) se balice un objeto natural, (ii) haya un cambio de baliza y/o (iii) se modifique la estructura de un objeto, rellenando **exclusivamente** aquellos campos modificados *(ver hoja de Ejemplos).*
Recogida en el mar	Esta actividad se añadirá cuando se recoja un objeto sin regreso al agua. En caso de izarse a bordo el DCP (sin regreso al agua) **tras un lance,** se añadirá esta actividad en una nueva línea *(ver hoja de Ejemplos).*
Baja	Pérdidas (o bajas) de **balizas** por la no localización de su señal. En esta línea incluir detalles de la última posición registrada (campos 'Lat' y 'Lon'), además de la 'Fecha' y 'Hora' de esta última posición.
Recogida en puerto	Recuperación de **balizas en puerto.** En esta línea rellenar sólo los datos referentes a la baliza (campos 'Modelo' e 'Identificación numérica' y los referentes a la 'Fecha', 'Hora' y posición de recogida (campos 'Lat' y 'Lon').

Tabla 2

TIPO DE DCP	
A la deriva	En caso de tratarse de cualquier DCP que se encuentre derivando.
Fondeado	En caso de tratarse de un buque de apoyo fondeado en un monte submarino.

Tabla 3

MATERIAL / ESTRUCTURA (DCP)	Descripción/Comentarios
Cañas	Estructura de la parte flotante (o semisumergida) del DCP fabricada con cañas de bambú.
Metal	Estructura de la parte flotante (o semisumergida) del DCP fabricada con metal.
Plástico / PVC	Estructura de la parte flotante (o semisumergida) del DCP fabricada con material plástico y/o PVC.
Natural	Como objeto natural se entiende cualquier objeto de origen natural o artificial (***carroña, tronco, hierbas, trasmallo, palé, txikotes...***) no diseñado expresamente para agregar pescado.
Otro	Estructura flotante (o semisumergida) fabricada de modo que no coincida con los tipos anteriores (chorizo de cañas y red, chorizo de corchos y red, barriles grandes, cabos unidos por red...)
Mixta	Estructura flotante (o semisumergida) combinando los componentes anteriores enumerados en esta tabla o parrillas unidas con estructuras diversas, incluidos objetos naturales *(describir en la casilla de 'Observaciones').*
Baliza sola	Seleccionar en caso de realizar alguna actividad sobre una baliza sola (sin estructuras asociadas) *En este caso no es necesario indicar el resto de las características del objeto.*

Tabla 4

FLOTACIÓN	Descripción/Comentarios
Garrafas	Sistema de flotación elaborado con garrafas plásticas.
Corchos	Sistema de flotación elaborado con corchos o boyas.
Bolos	Sistema de flotación elaborado con esferas de plástico.
Otro	Sistema de flotación elaborado con **otro material** *o* ***mixto*** *(mezcla de materiales) (describir en la casilla de 'Observaciones').*

Tabla 5

RECUBRIMIENTO EXTERNO	Descripción/Comentarios
Rafia/Nylon	Seleccionar en caso de emplear algún tipo de malla de ocultación para envolver la estructura flotante (rafia, nylon, lona...)
Malla	Seleccionar en caso de emplear malla de red para envolver la estructura flotante, con cualquier luz de malla (red de cerco, porpera, trasmallo, arrastre...)
Sin recubrimiento	Seleccionar en caso de tratarse de una estructura flotante sin recubrimiento de malla de ningún tipo
Otro	Seleccionar en caso de tratarse de **otro tipo** de recubrimiento o recubrimiento ***mixto*** *(mezcla de materiales) (describir en la casilla de 'Observaciones').*

Tabla 6

MATERIAL / ESTRUCTURA (RABO)	Descripción/Comentarios
Malla en chorizo	Paño de red 'achorizado' **en toda su longitud**
Malla abierta	Paño de red abierto **en toda su longitud**
Malla mixta (con velas)	Paño de red abierto por **tramos**
Cabos	Cabos / 'Txikotes' como material mayoritario y/o único
Otro	Cualquier **otro material** no contemplado en las líneas anteriores de esta tabla o material ***mixto*** *(mezcla de materiales)* . (describir en la casilla de *'Observaciones'*).

Tabla 7

AÑADIDOS	Descripción/Comentarios
De origen natural	En caso de añadir hojas de palmera o algún otro material de origen natural al rabo
De origen artificial	En caso de añadir algún material de origen artificial (cintas de colores, bolsas o sacos en retales, trozos de boyas de color naranja...)
Ambos	En caso de añadir tanto materiales de origen natural como artificial al rabo según las descripciones señaladas en los dos campos anteriores.
Ninguno	En caso de no añadir materiales a la estructura seleccionada en la Tabla 6

Tabla 8

Tabla 9

GRUPO*	Descripción/Comentarios
Tiburones (pez martillo, marrajo, tiburón sedoso...)	Seleccionar tiburones en caso de capturar ejemplares de este grupo, independientemente de su destino. *NOTA: No seleccionar en caso de tratarse de un tiburón ballena.*
Marlines/Picudos/Peces espada	Seleccionar este grupo cuando en la captura se incluyan peces conocidos como marlines, picudos o peces espada, independientemente de su destino.
Tortugas	Seleccionar tortugas en caso de capturar algún ejemplar de las mismas, independientemente de su destino.
Rayas y mantarrayas	Seleccionar este grupo en caso de capturar mantas, rayas o mantarrayas, independientemente de su destino.
Mamíferos marinos (ballenas, delfines...)	Seleccionar este grupo en caso de capturar mamíferos marinos en la red de cerco, independientemente de su destino.
Tiburón ballena	Selleccionar este grupo en caso de capturar algún ejemplar de tiburón ballena (pinto), independientemente de su destino.
Otros peces (pinchudos, bananas...)	Seleccionar otros peces en caso de capturar pinchudos (*Balistidae* p.e.), bananas, dorados o cualquier otro tipo de pez que no se incluya en las líneas anteriores de esta tabla.

***NOTA: Se deben incluir todas aquellas especies que se encuentren en el interior de la red de cerco una vez se hayan izado los cáncamos (cierre de jareta)**

DESCRIPCIÓN DE LA ACTIVIDAD	Nº de viaje	Fecha	Hora	Origen	¿Baliza?	Baliza		Actividad	Posicion		Tipo de DCP	Estructura flotante					Rabo				Calado (m)
						Modelo	Identificación numérica		Lat	Lon		Material / Estructura	Flotación	Recubrimiento externo	Malla con luz > 3 cm en el recubrimiento exterior	Dimensiones	Material / Estructura	Añadidos	Lastre	Malla con luz > 3 cm sin 'acharizar'	
	AAAA-nnn	DDMMAAAA	HHMM		(S/N)				ggmm	gggmm					(S/N)	aaxbbxcc				(S/N)	
Plantación de un objeto balizado propio en 02º02'S / 008º01'E el 05/03/2016 a las 12:05	2016-002	6032016	1205	Propio	S	dsl+	58234	Despliegue	-202	801	A la deriva	Plástico/PVC	Corchos	Sin recubrimiento	N	3x2	Cabos	Ninguno	Cable metálico	N	40
Plantación de un objeto balizado propio en 02º02'N / 008º01'W el 06/03/2016 a las 13:30		6032016	1330	Propio	S	m3i	165222	Despliegue	202	-801	A la deriva	Cañas	Corchos	Malla	S	4x2	Malla mixta (con velas)	De origen artificial	Aros / Cáncamos	S	50
Plantación de un objeto balizado para otro buque conocido de nombre "Cerquero 1"		6032016	1440	Cerquero1	S	dl+	60111	Despliegue	ggmm	gggmm	A la deriva	Cañas	Corchos	Malla	S	3x2	Malla en chorizo	Ambos	Aros / Cáncamos	N	40
Detección de un objeto balizado propio y recogido en el mar		9032016	1415	Propio	S	te7	150	Recogida en el mar	ggmm	gggmm		Plástico/PVC	Corchos	Sin recubrimiento	N	3x2	Cabos	Ninguno	Ninguno	N	40
Detección de un objeto balizado ajeno perteneciente a un buque desconocido		9032016	1730	Desconocido	S	m4i	80442	Comprobación	ggmm	gggmm	A la deriva	Metal	Garrafas	Rafia/Nylon	N	4x1.5	Malla en chorizo	De origen natural	Aros / Cáncamos	N	60
Cambio de baliza del objeto anterior						dsl+	58235	Modificaciones sobre el objeto anterior													
Lance a un banco agregado por un buque de apoyo anclado a un monte submarino		10032016	645	No aplicable	N			Lance	ggmm	gggmm	Fondeado										
Lance a un objeto balizado propio		10032016	1100	Propio	S	isl+	109215	Lance	ggmm	gggmm	A la deriva	Plástico/PVC	Corchos	Sin recubrimiento	N	3x1.5	Cabos	Ninguno	Cable metálico	N	40
Introducción de otro grupo de capturas accidentales																					
Recogida en el mar del objeto sobre el que se ha largado en la línea anterior								Recogida en el mar													
Lance a un objeto natural no balizado		10032016	1500	No aplicable	N			Lance	ggmm	gggmm		Natural (carroña, trasmallo, palé...)			N	2x0.3				N	0.3
Introducción de otro grupo de capturas accidentales																					
Introducción de otro grupo de capturas accidentales																					
Balizado del objeto natural sobre el que se ha largado en la línea anterior y adición de una pomila				Propio	S	dsl+	58236	Modificaciones sobre objeto anterior				Mixta	Corchos	Malla	S	6x2	Malla mixta (con velas)	Ninguno	Aros / Cáncamos	S	40
Lance a un objeto ajeno (tronco balizado)		11032016	625	Desconocido	S	d+	11777	Lance	ggmm	gggmm		Natural (carroña, trasmallo, palé...)				2x0.3				N	0.2
Cambio de baliza y adición de un rabo al objeto sobre el que se ha largado en la línea anterior						m3i	165333	Modificaciones sobre objeto anterior				Mixta	Corchos	Sin recubrimiento	N		Malla en chorizo	De origen artificial	Cable metálico	N	45
Detección de un objeto perteneciente a otro buque llamado "Cerquero 2"		12032016	820	Cerquero 2	S	te8	224	Comprobación	ggmm	gggmm		Cañas	Corchos	Malla	S	4x2	Malla mixta (con velas)	De origen artificial	Cable metálico	S	35
Cambio de baliza del objeto detectado en la línea anterior				Propio		m3i	165444	Modificaciones sobre el objeto anterior													
Detección de un objeto natural (sin balizar) por parte de un buque de apoyo		14032016	900	No aplicable	N			Comprobación	ggmm	gggmm		Natural (carroña, trasmallo, palé...)			N	1x0.3					2

Estimación banco/Captura (tons)	Captura (tons)			Captura accidentales			
	SKJ	YFT	BET	Grupo	En nº ejemp. o peso (t)	N/P	Nº/Peso ejemp. liberados vivos
2							
0							
15	8	5	3	Tiburones	6	N	6
25	10	2	1	Tiburones	4	N	2
				Marlines/Picudos/Peces espada	3	N	0
40	20	10	8	Tiburones	1	N	1
				Marlines/Picudos/Peces espada	1	N	0
				Tortugas	1	N	1
0							
5	1	1	1	Tiburones	2	N	1
5							

Buque 0
Matricula 0

Fecha	Hora	Baliza: ¿Baliza?	Baliza: Identificación numérica	Actividad	Posición: Lat	Posición: Lon	Tipo de DCP	Captura (tons): SKJ	Captura (tons): YFT	Captura (tons): BET	Captura accidentales: Grupo	Captura accidentales: ° ejemp. o pe	Captura accidentales: N/P	Captura accidentales: ° ejemp. liberad	Observaciones
DDMMAAAA	HHMM	(S/N)			ggmm	gggmm									
Date	*Time*		*Buoys*	*Type of visit*	*Latitude*	*Longitude*	*FAD Type (falta campo vacio en Material)*	*Estimated catches (SKJ)*	*Estimated catches (YFT)*	*Estimated catches (BET)*	*Taxonomic group (bycatch)*	*Estimated catches (bycatch)*	*Unit*	*Specimen released alive (Bycatch)*	*Observations*
01/12/2016	09:01	S	m3i+133259	Lance	01°30'S	009°58'W	ficial_A la de	10	2	1	Tiburón ballena	1	N	1	Buque1
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0
00/00/00	00:00	0		0	00°00'N	000°00'E		0	0	0	0	0	0	0	0

Annex 2

MONITORING THE NUMBER OF ACTIVE FADS USED BY THE SPANISH AND ASSOCIATED PURSE SEINE FLEET IN THE IOTC AND ICCAT CONVENTION AREAS

J. Santiago [3], H. Murua[4], J. López[2] and I. Krug[5]

The purse seine vessels of the Spanish ANABAC and OPAGAC fleet owners organizations agreed in late 2014 to freeze the number of DFADs by 1st of January 2016. According to that agreement, each purse seine vessel could use simultaneously a maximum of 550 Drifting Fishing Aggregating Devices (dFDAs) at any time of the year. This limit to be evaluated through the number of active instrumented buoys, which implicitly established the prohibition of the use of DFADs without buoys. This voluntary agreement also established that the verification of the volume of the daily active beacons used by each purse seiner would be carried out by the independent scientific body AZTI and sanctions were also included in the agreement.

Furthermore, in 2015 IOTC adopted *the Resolution 15-08 Procedures on a Fish Aggregating Devices (FADs) Management Plan* that sets the maximum number of instrumented buoys active and followed by any purse seine vessels at 550 at any one time (and 1100 acquired purchased annually). In 2016, *Resolution 16-01 on interim plan for rebuilding the Indian Ocean Yellowfin tuna stock in the IOTC area of competence* decreased the limit to no more than 425 daily active instrumented buoys per purse seine vessel (and 850 purchased annually).

Likewise, in November 2015 ICCAT adopted the *Recommendation by ICCAT on a Multi-annual Conservation and Management Programme for Tropical Tunas* [Rec. 15-01], establishing a provisional limit of no more than 500 instrumental buoys active at any one time for each fishing vessel.

Since September 2015 AZTI is carrying out the verification of the compliance with the different FAD limit measures adopted; initially as a voluntary agreement and later as agreed IOTC Resolutions 15/08 and 16/01 and ICCAT Recommendation 15-01. The procedure and mechanisms developed to verify the compliance are briefly outlined in the present document.

Method used for the verification

The basic information utilized to monitor the number of active buoys and, hence, verify the compliance with the limits, is provided by the instrumented buoys manufacturers. Currently, three are the companies that supply instrumented buoys to the Spanish and associated fleet (i.e. vessels belonging to the Spanish fishing companies but operating under other flags). By means of a sworn statement issued by these three companies, manufacturers provide daily information on the position and speed of each individual active buoy. Buoys are given unique identifier codes provided by the manufacturer that are associated to a single purse seine vessel, irrespectively of whether they are deployed by the purse seine vessel itself or by a supply vessel.

AZTI receives the buoy data directly from the manufacturers in a monthly basis with a two-month delay. This means that the first day of the information received in month *m* is the information of month *m-2*. Data is received in csv files, independently for each vessel, and contains daily records of all the active buoys managed by each individual vessel in month *m-2*. The information gathered in the csv files is: date [dd-mm-yy], time [hh.mm], individual unique buoy identified code [the format varies with the manufacturer, although it is always alphanumeric], latitude and longitude [expressed in degrees and minutes in decimal values] and speed [knots].

The agreement considers the following definitions for instrumented buoys, depending on their situation and condition:

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[4] AZTI. Herrera Kaia Portualdea z/g, 20100 Pasaia, Basque Country, Spain
[5] AZTI. Fishing Port, Victoria, Mahe, Seychelles

- Operational active buoy: a beacon that, after leaving the factory and passing through transit, has been registered and has the ability to transmit.
- Active buoy at sea: operational beacon transmitting position reports deployed at sea.
- Deactivation: action of de-registering an active buoy at sea by the buoy supplier company after the request by the ship owner due to loss, theft or any other possible cause.
- Reactivation: action of re-registering a beacon previously deactivated by the buoy supplier company after the request by the vessel owner (note that a buoy that has been deactivated at sea needs to pass at least one time by the fishing port before it is reactivated).

In order to identify records that do not correspond to active beacons at sea different filters are applied to the data:

- Records outside the Convention Areas [Atlantic Ocean: -100 > longitude > 20; Indian Ocean: 20 > longitude > 120]
- Records on land: two conditions are required, 1) the position of the record overlays a land mask (shapefile http://www.naturalearthdata.com/downloads/10m-physical-vectors/10m-land/) and 2) speed = 0 knots.
- Records of operational active buoys that are onboard the vessel before deployment: speed > 4 knots.
- Records of deactivated buoys: The buoys manufacturers fill with NAs those that have been deactivated during the month of reference. Therefore, those records with NA values are excluded.

AZTI has put in place additional control mechanisms, if necessary, that include: random examination onboard purse seiners and supply vessels at port to check buoys that have previously been deactivated and retrieved on deck (and are, thus, able to be reactivated and used again), crosschecking the first activation of the buoy with VMS vessel position, comparisons with the information recorded in the FAD logbook and with the information collected by the observers onboard, among others.

Preliminary results

Some examples of the results of the verification are shown in **Figures 1** and **2**. **Figure 1** shows the daily evolution of the number of active buoys at sea of one vessel of the Spanish and associated fleet between September 2016 and January 2017 in the Indian Ocean. This trend illustrates the effect of the transition from Res. 15-08 to Res. 16-01 in the IOTC convention area. **Figure 2** shows the average daily density of FADs used by one of the vessels in the Indian Ocean in January 2017, by 1x1º statistical square. According to ICCAT Recommendation 16-01 CPCs shall ensure that this type of information is submitted for the bulk of the fleet every year to ICCAT.

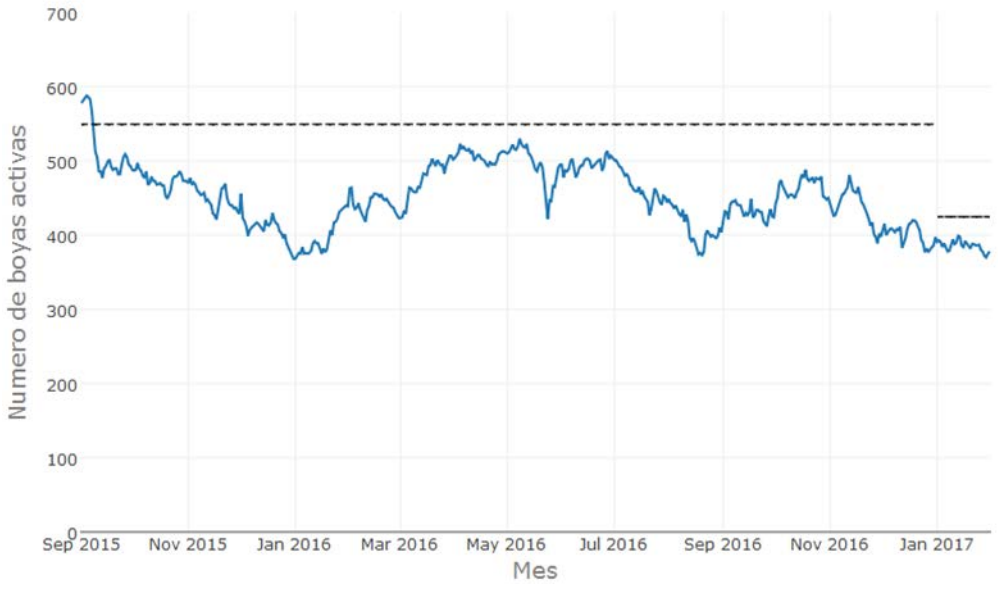

Figure 1. Example of the evolution of the number of active buoys used by one vessel of the Spanish and associated fleet between September 2016 and January 2017 in the Indian Ocean. Limits adopted in Resolutions 15-08 and 16-01 are also shown.

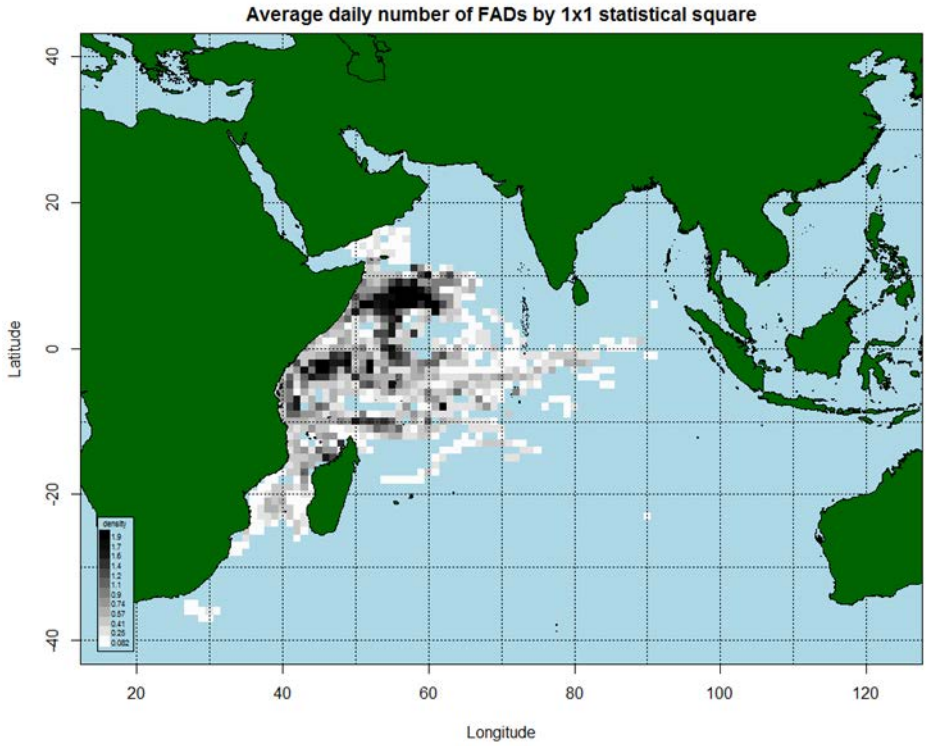

Figure 2. Average daily density of FADs used by one vessel of the Spanish and associated fleet in the Indian Ocean in January 2017, by 1x1º statistical square.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: GHANA

Fishing Plan Year: 2021

1. Introduction

Ghana as a member of ICCAT is bound by rules and regulations governing the harvest of tunas and tuna-like species in the Atlantic Ocean. Currently Ghana has 35 tuna surface vessels comprising 17 purse seiners and 18 baitboats all over 20 m LOA. Under ICCAT rules, her quota for bigeye has been calculated to be 3716 mt due to a payback policy intended to reduce her overharvest till 2021. Ghana's National laws enshrined in her Fisheries Act 625 of 2002 and regulations 2015 (LI 2217) corroborates international laws which among other seeks to eliminate IUU fishing whilst fishing sustainably.

2. Details of fishing plan – For those with >1,000 t *average catch*

There are currently in the 17 purse seine vessels and 18 bait-boats operating in Ghana of which over 80% are fully working throughout the year. Ghana has a bigeye quota of 3631.23 (adjusted quota) mt and this monitored by officials on quarterly basis for all vessels. Larger vessels with bigger tonnages are allocated more quota depending on their GRT and presumed to catch more fish and hence more bigeye fish. At the end of each quarter, catch returns from all vessels are estimated also from logbooks to ascertain the total catch of bigeye by each vessel. If three quarters of the quota are almost caught or exceeded, captains of vessels are required to reduce the numbers of FADs used and for those who have caught large quantities they are advised to stop fishing and observers onboard are to monitor areas where large sizes of bigeye are caught. For those who have almost caught nothing, we advise that they keep to their fishing pattern or reduce effort. Where the quota is almost up, we do advice captains to stop fishing in areas prone to harvesting bigeye which are seasonal. Ghana has no ITQ's as at now and we would explore this method of allocation and transfer from vessel to vessel or companies after *2021 if our quotas* are reviewed and overall stocks improve.

In summary:

- allocate quotas to all her surface fleets and improve monitoring of catches periodically through at sea observers and with the VMS & EMS to inform closures where quotas/catches are nearing their limits;

- reduce absolutely fishing in the moratorium period; January-February (i.e. free swimming schools inclusive) to reduce effort;

- limit the number of FADS deployed within highly productive areas to reduce effort;

- Withdraw licenses of vessels found to be inconsistent with ICCAT rules.

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and Catch reductions (Part II)**	Improve collection of data and control measures to ensure full implementation of management measures. Monitor overall quotas by: i. Allocate and monitor quotas to individual fleet. ii. Monitor quota on quarterly bases. iii. Stop fishing if 80% of catch is reached.	Domestic laws recommends best practices in line with international laws	
2.	**Capacity Limits (Part III)**	Maintain capacity limits of 17 purse seine and reduced baitboat to 18 in 2020.		
3.	**Management of FADs and FAD Closure(s) (Part IV)**	Adhere to area/time closure of the fishery to FADs prescribed by ICCAT from 2020. Maintain our FAD numbers to 250 per vessel. Reduce the number of FADs deployed in highly productive areas (spawning grounds) Monitor FAD deployment by radio buoys and adhere to the FAD management plan with logbook from. 2021 in addition to logsheets (MS excel) being used over the years which entails all the information required. Started using biodegradable FADs from 2020 piloted by ISSF.		
4.	**Control Measures, including planned trials of electronic observers (Part V)**	To revive the use of electronic monitoring system (EMS) under ABNJ project which started in 2015 to improve compliance. A 100% coverage of tuna fleet with human observers currently ongoing.	Fisheries Act 625 section 100-102 and Regulation 35 empowers the observer to carry out designated duties	

5.	**Other information / measures to be taken**	Hold regular meetings with Ghana Tuna Association to consolidate more responsible fishing practices. Adhere to ISSF practices in the release of endangered species. Improve management of tuna fishery by further training in fish identification and port state measures. Withdraw licenses of fleet found not to adhere to.		

3. Planned an expansion of capacity in 2020- for those with <1,000 t average catch

No planned expansion of capacity.

4. FAD Management Plans

Floating objects have been used for the past decades to enhance the capacity of fishermen to catch more fish. Fishermen place these natural or artificial objects at the surface or at particular depths within the ocean to attract fish with ease. Increasingly more and more FADs of different shapes and sizes are now being used and synchronised to electronic beacons to locate their geographic positions.

Since the 1990s purse seine FAD fishing for tropical tunas has rapidly expanded and fleets in Ghana also fish extensively on FADs. Purse seine fishing in general, and especially in FAD fishing, has experienced a large number of innovations that have made fishing more effective over time.

While FADs attract species of interest to the tuna fleets, they also attract non-targeted endangered marine species, such as seabirds, sharks and turtles.

Developing methods to mitigate the impact of FAD fishing on non-targeted, by-catch, is an active area of research to which most Regional fisheries Management Organisational (RFMO's) have taken the initiative.

4.1 Description

In Ghana over 80% of FAD are constructed from natural objects such as bamboo strips and palm fronds and attached to a radio beacon. These drifting devices are left at sea for between 3-4 months and usually retrieved after and reset with fresh palm fronds. Over 40% of drifting FAD in Ghana either get lost or decay beyond repair. From computations as per company it was realized that each company constructs and deploys different numbers of FADs each month at sea. Types of FAD are typically the same and each Bamboo FAD generally has the same dimensions of 5m x 2m on average costing between USD200-300. Each radio beacon cost around USD500 hence a complete typical FAD in Ghana can cost USD700-800.

Statistics gathered from the companies indicate that typically each vessel deploys a minimum of 200 and a maximum of 300 FADs (in 2021) of which most of them are replaced within 3-4months. Modern technology indicate that FADs/ buoys can be monitored via a specialized electronic monitoring system. Further to this Ghana is in favour of science-based limits on the overall number of FADs used per vessel/or FAD sets made.

Data from FAD fishing activities are monitored via satellite communication such as Zunibal, fishing log sheet showing typically the mode of fishing and FAD logbooks as enshrined in Rec.19-02. All incidental catches and mitigation measures are being put in place with observer programmes and instructions from reputable organizations such as ISSF who yearly from 2012 have been training Captains and officers onboard on measures to minimize bycatch and incidental catches of endangered species. Consideration of the use of

devices to minimize entanglement or exclude other species from being caught are in the process with assistance and training by experts from ISSF (biodegradable FADs). Some of these conditionalities are prerequisite for companies to enable them export their products safely to third party countries.

Currently in Ghana, ownership of FAD is known as each company / vessel has unique identifiers /and or an electronic device (GPS, echo sounder, satellite transmitter, etc.) and serial codes to distinguish between each of them. Beacons and buoys associated with FADs must bear legible serial numbers for identification purposes.

4.2 Institutional arrangements

This management plan has been developed in an inclusive, interactive and participatory manner. The process included consultations with representatives of the key stakeholders of the sector. The primary groups from which representatives will be drawn are from the Ministry of Fisheries and Aquaculture Development/Fisheries Commission and Ghana Tuna Association (GTA). At the international level a representative from the industry (GTA) and the Fisheries Ministry/ Commission may constitute a team to interact at any international forum on FADs.

Based on the review at the international level i.e. ICCAT and the outcomes, the GTA will agreed on the objectives, scope and other elements to be included in the plan for its effective implementation and monitoring.

The implementation of the FAD management plan is a joint responsibility of the Ministry of Fisheries and Aquaculture Development, and the Ghana Tuna Association, the resource users and other stakeholders of the fisheries sector. However, in keeping with its mandate, the Secretariat of the Fisheries Commission will regulate, promote, support and guide the implementation of the plan, through broad consultative processes with other stakeholders.

The Minister in-charge of Fisheries and Aquaculture Development will charge the Head delegate of Ghana/ICCAT to ensure the effective and harmonious implementation of the plan in line with international/government directives. Each year, an Action Plan of priority actions to be undertaken will be developed based on outcomes from FAD workshops held under the auspices of ICCAT. The annual action plan would also contain a "Communication Strategy" to ensure that all those implementing the plan possess the same information base, interpret it in the same way, and that the results of the management plan are widely disseminated.

4.3 FAD construction specifications and requirements

FADs constructed in Ghana are each made from natural objects such as bamboo (raft) and palm fronds with a general dimension of 5m x 2m.

Ghana collaborating with FAO-ISSF to undertake a biodegradable FAD pilot project with the aim of implementing best practices to reduce both ghost-fishing due to entanglement in FAD structure and the amount of plastic used to construct FADs structures thereby contributing to achieving responsible, efficient and sustainable fisheries and biodiversity conservation.

4.4 Applicable period for the FAD Management Plan

The applicable period for the FAD Management Plan is 2020 to 2022.

4.5 Means for monitoring and reviewing the implementation of the FAD Management Plan

The overall achievement of the plan will be measured through a combination of measures/indicators which will lead to the sustainable exploitation of the fishery through: limited FAD use per type and size, per vessel; closed seasons (moratorium), and to a lesser extent awareness campaigns, education and training in more responsible fishing practices.

This FAD management plan reflects current understanding of the fishery and the resources exploited. It will be improved with advancements in knowledge and management of the fishery through obtaining and analyzing sound data on the fishery. Reviews of the Management Plan are the responsibility of the SCRS and to be implemented by the Ministry of Fisheries and Aquaculture Development and passed through the GTA and other stakeholders for their consideration and endorsement. However, no major departure from the stated management arrangements for a given period will occur unless directed by SCRS and the ICCAT Commission at their regular meetings.

Reports from data collection mechanisms will be channeled to the SCRS through the Executive Secretary of ICCAT by the Head delegate (Ghana) at stipulated times as the SCRS/ Commission may determine.

Capacity Table

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels						*Total Estimated Capacity*			
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m	17	17	17	17	4,060 mt per annum	none	13906	13796	14604	14604	698
Purse seiner between 20 and 40m	Not applicable	Not applicable	Not applicable								
Purse seiners less than 20m	Not applicable	Not applicable	Not applicable								
Longliner over 40m	Not applicable	Not applicable	Not applicable								
Longliner between 20 and 40m	Not applicable	Not applicable	Not applicable								
Longliner less than 20m	Not applicable	Not applicable	Not applicable								
For Capacity Expansion											
Baitboat	No	No	No	No							
Other gears (specify)											
Total fishing capacity	22586	22476	22396	22396							**-190**
Quota											
Initial quota	4250	4250	4250	3968.23							
Quota transfer made to XXX (if applicable)	Not applicable	Not applicable	Not applicable	Not applicable							
Quota transfer received from XXX (if applicable)	70	Not applicable	Not applicable	Not applicable							
Total adjusted quota (if applicable)	3716	3716	3716	3631.23							

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: GUATEMALA

Year of Fishing Plan: 2021

1. Introduction

As part of the recommendation by the International Commission for the Conservation of Atlantic Tunas (ICCAT) and in seeking to contribute to the conservation and sustainable management of the tropical tunas fisheries, it is recognised the need to adopt monitoring and control measures to improve scientific assessment of the populations of bigeye, (*Thunnus obsesus*), yellowfin (*Thunnus albacares*) and skipjack (*Katsuwonus pelamis*).

The *Thunnus* group is a genus of marine bony fish with less than ten species. These include bigeye (*Thunnus obesus*), yellowfin (*Thunnus albacares*), and skipjack is a species that belongs to the Scombridae family.

These fish are often caught together with surface gear such as nets and hooks, and the individuals are easily confused. Both the internal and external characteristics of the species vary with size and catch area.

The plan seeks to implement effective conservation mechanisms with a view to improving conservation and sustainable use of the biological diversity present in the ICCAT Convention area, by building capacity in terms of planning, management, monitoring and strengthening activities that are compatible with the conservation of environmental goods and services, including participation by interested parties (competent fisheries authority and fisheries companies).

2. Details of fishing plan

In Guatemala, the Directorate of Fisheries and Aquaculture Regulation is the authority responsible for administration of hydro-biological resources and compliance with the fisheries regulation. It is in charge of carrying out the necessary actions for compliance with national and international regulations as well as legal provisions, as established by the regional fisheries management organizations of which Guatemala is a member. In this case, the State of Guatemala has been a member since 2005, and has registered the tuna vessels that operate in the Atlantic targeting tuna.

As an ICCAT Contracting Party, the State of Guatemala proposes to:

- Maintain a register of vessels authorised to catch bigeye, yellowfin and skipjack.
- Notify the list of authorised vessels, by the established deadlines, using electronic means and in accordance with the prescribed format.
- Notify immediately any inclusion, deletion and/or modification of the initial list at the time when the change arises.
- Report the vessels that actively fish for bigeye, yellowfin and skipjack in a given year.

	ICCAT requirement (per 19-02)	*Explication of the actions taken by the CPC for the purposes of implementation*	*Relevant domestic laws or regulations (as applicable)*	*Note:*
1.	**Catch limits* and catch reductions (Part II)**	- Guatemala will apply a catch limit for bigeye (*Thunnus obesus*) that is 10% below its recent average catch. - At the end of each quarter, the catch taken by the vessels will be reported.		
2.	**Capacity limits (Part III)**	- Guatemala will maintain efforts in accordance with the proportion of its quota and its current fleet.		
3.	**Management of FADs **and FAD closure(s) (Part IV)**	- The results of the use of FADs will be reviewed so as to minimize possible impacts on other fish populations and juvenile tuna catches. - Guatemala will maintain the limit on FADs established by the Commission. - Implementation of the closure as recommended by the Commission.		
4.	**Control measures, including planned trials of electronic observers (Part V)**	- Guatemala will make efforts to responsibly maintain the catch to meet its responsibility to the Commission, by assuming the commitments of the recommendations and established measures.	- General Law on Fisheries and Aquaculture Decree 80-2002 and its regulation Government Agreement 223-2005.	
5.	**Other information / measures to be taken**	- Guatemala will maintain the necessary communication with its vessel owners and the Commission to meet its requirements.		

3. FAD Management Plan

The scope of application is for all the Guatemalan tuna purse seine vessels that operate in the ICCAT Convention area, targeting tropical tunas.

The revision of the plan will be carried out when appropriate and it will be updated to incorporate amendments to applicable national and international regulations in force.

With the aim of improving comprehension of this document, the following terms have been defined:

- Fishing activities: activities that are carried out to catch fish. These not only relate to the catches themselves, but also to the search, deployment or collection of FADs.
- Vessel owner: An individual or legal entity that owns or holds any other legal title to one or more fishing vessels.
- Master: The most senior person onboard the vessel that is responsible for fishing activity. This person must make decisions regarding fishing grounds and type of fishing (set on free schools or on an object).
- Pelagic: A species that lives in the mid-water or close to the water surface. Tuna and tuna-like species are often referred to as “large pelagics”.

- Captain: Highest authority onboard the fishing vessel in legal terms. The person has undergone the formal training necessary to dispatch / run the vessel.
- Competent authority: The institution in charge of administering hydro-biological resources and implementing the fishing regulation in force. In this particular case, DIPESCA.
- Beacon: A beacon is any device that is intended to locate or monitor a FAD.
- GPS beacon: A beacon fitted with a global geo-location system.
- Fish Aggregating Devices (FADs): Any object deployed at sea to serve as a device to aggregate fish.
- Moored FADs: Those that are artificially fixed to the seabed to prevent drifting, which include support vessels moored to a seamount.
- Natural FADs: Any FAD found at sea, e.g. plant debris, dead animals, human waste etc., that is used as a FAD.
- Deployment: Fishing activity that involves deployment at sea of a FAD.
- Echosounder: Electronic apparatus generally used in naval navigation that enables measurement of distance between the water surface and the seabed.
- Fishing vessel: A vessel whose main activity is fishing and to which catches taken are attributed.
- Set under FAD/object: Catch from schools of fish associated with a FAD or aggregated around a FAD.
- Set on free school: Catch from free-swimming schools, detected through sound or sightings (viewpoints).
- Collection: Fishing activity that involves collection at sea of a FAD.

Characteristics of FADs and beacons assigned to each vessel

The FADs that are currently used by the Guatemalan tuna fleet are composed of a floating structure (usually known as a grill) and a submerged structure (also known as a tail).

Currently, the floating part has been replaced by a single PVC part that is more impermeable and watertight. The walls of the part are 1 cm thick and are lined with polyurethane foam. Due to these characteristics, the grill is completely airtight, which significantly reduces object loss through sinking.

The submerged part or tail is composed of a length of sardine net and a weight is attached at the lower end. The mesh diameter of the net used to construct the FAD is consistent with the parameters established by ICCAT, which provide that it must be less than 7 cm.

All the beacons used by the fleet are fitted with an integrated GPS system that enables location of the object in real time via a monitor installed onboard to follow the vessel's course. These beacons are fitted with an integrated echosounder that also enables fish under the deployed object to be viewed.

Guatemala will maintain the limit on FADs deployed for each of its vessels, in accordance with what has been established by the Commission.

Institutional agreements

Monitoring of FADs: Vessels must retain information on monitoring for each FAD with a satellite beacon, making reference to their assigned number.

Information obtained via other types of beacon through observation, radio, etc. must also be retained.

Record and transmittal of information on FAD activity: In addition to annual communication, vessel owners must communicate quarterly, to the competent authority, for each FAD, stating its identification number, the operations involving fish aggregating devices of its fleet (deployment, collection and fishing) specifying how these were recorded in their logbooks.
To cover FAD logbooks, the current ICCAT format will be used. See Annex 2 of Recommendation 19-02.

Actions to prevent loss of FADs: In order to prevent loss of FADs and the consequent potential drifting of schools of tuna and accompanying fauna, each vessel must carry out close monitoring to establish the situation of FADs.

Vessel operators must adopt the necessary measures to avoid as far as possible the loss of FADs at sea.

If a FAD is lost or is impossible to collect (prohibited area or time for fishing) operators must communicate this immediately to the competent authority and provide justification for this loss or not collecting the device, stating in the communication the last known position and date.

The competent authority will assess the information provided and will communicate to the vessel owner the actions to take.

Measures to mitigate the capture of juvenile and non-target species: The parties involved in this plan may propose carrying out pilot actions for the purpose of promoting the use of more selective methods to avoid the capture of juveniles and associated species, such as sorting grids incorporated into the purse seine net to reduce the catch of juvenile tunas and pelagic fish associated with the fishery.

See Annex 5 to Recommendation 19-02.

Other measures: Develop a Good Fisheries Practices Protocol, which incorporates the regulations governing Guatemala's national and international fishery administration and all the related actions to be taken by the tuna purse seine vessels, so as to achieve and maintain the sustainability of pelagic fishery resources and associated fauna, and to ensure the safety of crew members.

Implementation of a responsible fisheries protocol that sets out the actions to be taken in the event of entanglement of juvenile tunas, species of marine mammal, sea turtles, sharks and other species classed as threatened or in danger of extinction.

Research will be promoted on alternatives to improve nets hanging from FADs to prevent capture of juvenile tunas, marine species, especially marine mammals, sea turtles, sharks and other susceptible species, using other materials and smaller mesh to minimise adverse effects. See the document Measures to prevent FAD loss (preventative measures: mesh size[1]).

Prevent abandonment, loss or discard of fishing gear, devices and equipment, whose parts are made of plastic or polystyrene materials that may cause damage to juvenile tunas, species of marine mammals, sea turtles, sharks and other species classed as threatened or in danger of extinction, in accordance with the provisions of national and international fisheries regulations in force in Guatemala.

Requirements and specifications for FAD construction

Description of fishing off a Fish Aggregating Device (FAD): The concentration and use of the different types of FADs can vary according to the geographical area. Fishers also use a variety of fishing gears such as purse seine nets, trawl nets and passive gears such as longline to catch fish from around a FAD.

Elements of a Fish Aggregating Device (FAD): Anchored FADs consist of a float, an anchorage rope and some type of underwater or alluring structure. They can be constructed from trunks and bamboo bound with rope, or they can be commercially produced and made of steel, aluminium or fibreglass and equipped with a geolocation device.

Design: The design should prevent the capture or fishing of marine mammals, sea turtles, sharks and other species that are classed as threatened or in danger of extinction, in accordance with the provisions of the national and international fisheries regulations in force in Guatemala.
Types of material: Guatemala will make efforts to reduce the use of environmentally unfriendly materials.

FAD marking and identification: Each FAD and beacon must be identified in accordance with internationally recognised standard systems, such as the Standard Specifications for the Marking and Identification of Fishing Vessels, established by the United Nations Food and Agriculture Organization (FAO).

This implies that each FAD must have a unique number that will serve as the identifier of this FAD over the course of its useful life. The mark must be visible and indelible and be capable of withstanding the maritime conditions to which it will be exposed.

[1] Measures to prevent FAD loss (preventative measures: mesh size).

Control and monitoring measures of this plan: The competent authority may carry out documentary checks on the provisions of this plan, and additional data may be requested if necessary. In addition, it may determine in coordination with vessel owners, the participation of other scientific bodies for achievement of the objectives established in this plan.

Measures regarding confidentiality of the information provided by operators: The information provided by operators will be treated at all times according to the confidentiality of the case, and it will be used strictly for purely scientific or control purposes, if necessary. The competent authority will not disseminate this sensitive information outside the scope described above, without the express consent of the vessel owner.

4. Bigeye projection for 2021

Each and every year, Guatemala has fully complied with the figures allocated by ICCAT, catching bigeye in amounts below 3,500 t which correspond to it as a long-term right, however Guatemala is willing to reduce the fishing effort for 2021 to 1,827.42 metric tons per year, which will be used for the two vessels registered with ICCAT.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
		Number of vessels:						*Total estimated capacity*			
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018/ 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018/ 2020*
Purse seiner over 40 m	2	2	2	2		0	4218	4218	4218	4218	0
Purse seiner between 20 and 40 m											
Purse seiner les than 20m											
Longliner over 40 m											
Longliner between 20 and 40 m											
Longliner less than 20 m											
For capacity expansion											
Baitboat											
Other gears (specify)											
Total fishing capacity	4218	4218	4218	4218							
Quota											
Initial quota	3500	3500	(*)911.93	3500							
Quota transfer made to XXX (if applicable)											
Quota transfer received from XXX (if applicable)											
Total adjusted quota (if applicable)	3500	3500	(*)911.93	3500							

(*) Explanatory note: A complaint has been filed with ICCAT because this quota of 911.93 t does not tally with the BET catch data of the fleet operated by Guatemala, based on sales notes. The limit that Guatemala committed to for 2020 was 1,827.42 t.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS

Name of CPC: JAPAN

Fishing Plan Year: 2021

1. Introduction

Japan's bigeye tuna annual catch limit for the 2021 fishing season (from 1 August 2021 to 31 July 2022) is 14849.44 t (after transferring 600 t to China and 300 t to EU: please see the table below for more details on how to calculate this). All Japanese fishing vessels catching tropical tuna (TRO) in the Atlantic are large scale tuna longline fishing vessels (LSTLVs). The Minister of Agriculture, Forestry and Fisheries, having been entrusted competence by the Fisheries Law, has introduced the Ministerial Ordinance to introduce a legally binding management system. The Fisheries Agency of Japan (FAJ), which is an extra-ministerial bureau of the Ministry of Agriculture, Forestry and Fisheries of Japan, enforces the Ministerial Ordinance on Japanese fishermen.

2. Details of fishing plan – For those with >1,000 t average catch

As of 15 January 2021, the Minister licenses 181 LSTLVs to operate globally, and all of them are registered to ICCAT as tropical tuna vessels for the 2021 fishing year.

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and Catch reductions (Part II)**	Japan's bigeye tuna annual catch limit for the 2021 fishing season (from 1 August 2021 to 31 July 2021) is 14849.44t. 14849.44 t (catch limit for 2021) = 17,696 t (catch limit in Rec. 16-01) * (1-0.21)-600 t (transfer to China)-300 t (transfer to EU) +1769.6(2019 carry over(17696*10%)(Para12 of Rec. 19-02) When the total catch of bigeye tuna by Japanese vessels becomes close to the catch limit, the Minister will prohibit the fishermen from catching bigeye tuna.	Ministerial Ordinance of the Minister of Agriculture, Forestry and Fisheries, Article 23	
2.	**Capacity Limits (Part III)**	As of 15 January 2021, the Minister licenses 181 LSTLVs to operate globally, and all of them are registered to ICCAT as tropical tuna vessels for the 2021 fishing year.	N/A	
3.	**Management of FADs and FAD Closure(s) (Part IV)**	N/A (LSTLVs only)	N/A	

4.	**Control Measures, including planned trials of electronic observers (Part V)**	FAJ issues a specific authorization to its longline fleet for fishing tropical tuna species, and those vessels are registered to the ICCAT vessel record. The Minister requires fishing operators to report a daily catch of tropical tuna (including zero catch) every 10 days. In addition, the fishermen are requested to make more frequent report (five or every day) for bigeye tuna for a timely management of catch limit by FAJ. Subject to the COVID-19 pandemic situation, FAJ will ensure a minimum of 5% observer coverage of fishing effort of its LSTLVs which are allowed to fish tropical tunas, through the presence of a human observer on board. A trial of Electronic Monitoring is under consideration.	Fisheries Law, Article 52 Ministerial ordinance of the Minister of Agriculture, Forestry and Fisheries, Article 26 N/A	
5.	**Other information / measures to be taken**	N/A	N/A	

3. Planned an expansion of capacity in 2021- for those with <1,000 t average catch

N/A.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
	Number of Vessels						*Total Estimated Capacity*				
Type	*2018*1*	*2019 *2*	*2020*3*	*2021*4*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m											
Purse seiner between 20 and 40m											
Purse seiners less than 20m											
Longliner over 40m	173	169	164	163			73,881 GRT	72,668 GRT	70,766 GRT	71,004 GRT	
Longliner between 20 and 40m	19	18	19	18			3,407GRT	3,310GRT	3,640GRT	3,441GRT	
Longliner less than 20m											
For Capacity Expansion											
Baitboat											
Other gears (specify)											
Total fishing capacity	192	187	183	181			77,288 GRT	75,978 GRT	74,406 GRT	74,445 GRT*5	
Quota											
Initial quota	17,696.00 t	17,696.00 t	13,979.84t= 17,696.00t* (1-0.21)	13,979.84t= 17,696.00t* (1-0.21)							
Quota transfer made to XXX (if applicable)	To China: 1,000t To Ghana: 70t	To China: 1,000t To Ghana: 70t	To China: 600t To EU: 300t	To China: 600t To EU: 300t							
Quota transfer received from XXX (if applicable)		-	-								
Total adjusted quota (if applicable)	15415.88t	19,280.40t	13,079.84t	14,849.44t*4							

*1 The capacity for 2018 is as of 25 July 2019.
*2 The capacity for 2019 is as of 31 July 2019.
*3 The capacity for 2020 is as of 27 January 2020.
4 The capacity for 2021 is as of 15 January 2021. Japan's 2021 total adjusted quota for BET = 17,696(Para 3 of Rec. 16-01)(1-0.21) (Para 4-(a) of Rec. 19-02)-600(transfer to China (Footnote 2 of Para. 8 of Rec.19-02))-300(transfer to European Union (Footnote 2 of Para 8 of Rec. 19-02))+1769.6(2019 carry over(17696*10%) (Para 12 of Rec. 19-02)
*5 The total estimated capacity increased by 39 GRT from last year despite two vessels removed. This increase in GRT happened because i) some old LSTLVs were replaced with new ones having increased tonnage and ii) some LSTLVs were renovated. However, the increase was for better safety and living conditions on board vessels and does not contribute to the catchability increase.

CAPACITY TABLE - KOREA

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels					*Total Estimated Capacity(GT)*				
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m											
Purse seiner between 20 and 40m											
Purse seiners less than 20m											
Longliner over 40m	9	11	10	9	294 t/vessel	46 t/vessel	5,613	6,939	6,342	5,681	729
Longliner between 20 and 40m											
Longliner less than 20m											
For Capacity Expansion											
Baitboat											
Other gears (specify)											
Total fishing capacity	9	11	10	9			5,613	6,939	6,342	5,681	729
Quota											
Initial quota	1,486	1,486	1,000	1,000							
Quota transfer made to Chinese Taipei	223	223	223	223							
Quota transfer received from XXX (if applicable)											
Unused Quota carried forward from the previous year	222.9	222.9	222.9	148.6							
Total adjusted quota (if applicable)	1,485.9	1,485.9	999.9	925.6							

For 2020 and 2021, Korea has no catch limit as paragraph 4.d) of Rec. 2019-02 applies to Korea but we voluntarily set our catch limit at 1,000 t in order to ensure the effectiveness of the tropical tuna measure, without prejudice to the future discussions on bigeye tuna catch limits.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: MOROCCO
Year of Fishing Plan: 2021

1. Introduction

Following the results of the decision-making process by correspondence implemented by ICCAT due to the COVID-19 pandemic, the fishing capacity management plan for tropical tunas of the Kingdom of Morocco has been developed in accordance with Recommendation 19-02 on a multi-annual conservation and management programme for tropical tunas.

2. Details of fishing plan – For those with >1,000 t average catch

	ICCAT requirement: (Per Rec. 19-02)	*Explanation of CPC actions taken to implement*	*relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and catch reductions (Part II)**			
2.	**Capacity limits (Part III)**			
3.	**Management of FADs and FAD closure(s)(Part IV)**	See FAD management plan below. Fishing under FADs is closed for three months (January-February and March). This closure is included in the fishing license.		
4.	**Control measures, including planned trials of electronic observers (Part V)**	Fishing for tropical tuna species is covered by a control infrastructure, in particular: – Control at landing ports, fishing sites and fish markets; – Vessel control by satellite (positioning and tracking device "VMS"); – At sea vessel control is carried out by the control authorities; – A system of reporting catches on landing and monitoring trade flow through the catch certification procedure.	Dahir regarding Law No. 1-73-255 of 27 chaoual 1393 (23 November 1973) which establishes the maritime fisheries regulation, as amended and supplemented. Dahir No. 1-14-95 of 12 May 2014 enacting Law No. 15-12 on the prevention and fight against illegal, unreported, and unregulated fishing which amends and supplements Dahir No. 1-73-255 of 27 chaoual 1393 (23 November 1973) which establishes the maritime fisheries regulation.	

5.	**Catch recording and reporting**	– Vessels fishing for tropical tunas have a bound logbook; – Tropical tuna catches are reported regularly to the ICCAT Secretariat (monthly and quarterly) as well as the fishery closure dates of these species, in accordance with the relevant ICCAT provisions in force.		
	Bycatch	Morocco has set aside a quota (20 t) for bycatch, including potential dead discards.		

3. Planned expansion of capacity in 2021 - for those with <1,000 t average catch

Morocco is among the ICCAT CPCs that have submitted a declaration of intention to develop the bigeye tuna fishery (dispatch No. 018/20 of 20/01/2020, set out below). Unfortunately, the health crisis which has worsened since the beginning of the year and continues to worsen, has slowed down achievement of these ambitions and this must be taken into account in future discussions on this tropical tunas recommendation.

Declaration of intention to develop the tropical tunas fishery

In accordance with the provisions of the *Recommendation by ICCAT to replace Recommendation 16-01 by ICCAT on a multi-annual conservation and management programme for tropical tunas* (Rec. 19-02), in particular article 21 and 22b, and taking into account the rights of developing coastal countries to develop their fisheries (article 119 of UNCLOS and article 25 of Part VII of UNFSA), the Kingdom of Morocco hereby communicates its declaration of intention to increase its participation in the ICCAT fisheries targeting tropical tunas (bigeye, yellowfin and skipjack tuna).

Within the context of development of the fishing activity for bigeye and other tropical tunas, the Kingdom of Morocco issued a Call for expression of interest (CEI) in February 2018, to select exploitation and value projects for bigeye and other tropical tunas (yellowfin and skipjack) within Morocco's Exclusive Economic Zone (EEZ), as well as along the coasts of the ICCAT Convention area (between parallels 50°N and 45°S).

The results of this CEI enabled selection of 13 projects, whose Moroccan operators have committed to investments to mobilise the vessels necessary for this activity, and through investments onshore to add value to bigeye tuna.

The vessels that will be deployed are tuna purse seiners, longliners and purse seiners. The gears that will be used are purse seine, surface drifting longline (see capacity table).

In addition, exploitation of bigeye and other tropical tunas (yellowfin, skipjack) is included in the orientations of the national strategy to develop the maritime fishery sector (Halieutis). The need for this exploitation is motivated by several reasons, in particular, to reduce pressure on the other national fisheries as well as redeployment to other tuna fisheries.

Therefore, this exploitation aims to achieve the following objectives:

- Develop the tropical tunas fishery;
- Add value to the species of tropical tunas caught;
- Create stable and sustainable employment.

As regards the activity of purse seiners that our country intends to deploy in this fishery, it is brought to your attention that the support vessels that will be assigned to these purse seiners (para 23 of Rec. 19-02) as well as the FAD management plan (para 34 of the above-mentioned Recommendation) will shortly be communicated to you.

It should also be noted that the Kingdom of Morocco could change its declaration depending on the evolution of the situation and opportunities of this fishery.

In light of the elements described above, Morocco would like this declaration to be disseminated to all CPCs concerned of the Commission, as well as the Chair of Panel 1.

4. FAD Management Plans

Guidelines for Preparation of FAD Management Plans

Title	Management elements	Measures taken by Morocco
Description	a) FAD type AFAD = anchored; DFAD = drifting	DFAD = drifting FAD
	b) types of beacon / buoy	Associated buoy equipped with a GPS and echosounder
	c) maximum number of FADs to be deployed by purse seiner and by FAD type and active at any time per vessel.	Maximum included in the fishing license 300 vessels for 2020
	d) Minimum distance between aFADs.	-
	e) Reduction in bycatch and policy on use	Non-entangling FADs for some species
	f) Consideration of interaction with other gear types.	Interaction rarely observed with surface longlines
	g) Declaration or policy to be followed on "FAD ownership".	Declaration in the event of encounter of foreign FAD
	h) Use of support vessels, including those flagged to other CPCs	No authorisation was issued to support vessels.
2-Institutional arrangements	a) Institutional responsibilities for the FAD management plan	This is done in accordance with ICCAT Rec. 19-02
	b) Application process for FAD deployment authorisation	Yes/Fishing license
	c) Obligation of vessel owners and masters in respect of FAD deployment and use	Compliance with current national and international regulations
	d) FAD replacement policy	Reporting in FAD logbook
	e) additional reporting obligations outside of this recommendation	Yes
	f) conflict resolution policy in respect of FADs	-
	g) Details of any closed areas or periods e.g. territorial waters, shipping lanes, proximity to artisanal fisheries, etc.	The captain is informed of any closure of areas beforehand
3-FAD construction specifications and requirements	a) FAD design characteristics (a description)	DCP comprises a floating part made of biodegradable plastic with a suspended submerged structure fitted with a net with a 30 metre drop and 10 mm meshing, non-entangling for turtle and shark
	b) Lighting requirements	FADs fitted with solar powered beacon buoys
	c) Radar reflectors	-
	d) Visible distance	Around 1 mile using binoculars
	e) FAD markings and identifier	Identifier of the buoy associated with a serial number marked on the buoy
	f) Radio-beacon markings and identifier (serial number requirement)	Mark: Nautical A serial number marked on the buoy
	g) Echosounder beacons marking and identifier (serial number requirement)	A serial number marked on the buoy
	h) GPS satellite transmitter	
	i) Research carried out on biodegradable FADs	Yes, viewing in real time of position of all FADs with estimated quantity

	j) prevention of FAD loss and abandonment	Arrangement between vessel owners
	k) FAD recovery management	On arrangement between vessel owners
Applicable period of the FAD Management Plan	Authorisation period recorded on the fishing license from 01/04/2021 to 31/12/2021.	
Methods of monitoring and reviewing implementation of the FAD Management Plan	- Onboard control through: ✓ embarkation of permanent observers or / ✓ installation of surveillance cameras - in dock by the authorities - implementation of a stringent documentation system	

For 2021 permanent embarkation of a scientific observer is a measure taken to ensure compliance with all the provisions of Recommendation 19-02.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET						
	Number of vessels				Total estimated capacity	
Type	2019	2020	2021	Estimated best catch rate per unit	2020	2021
Purse seiner over 40m	0	5	5		2300	2300
Purse seiner between 20 and 40m	0	0/TBD	0/TBD		0	0
Purse seiner less than 20m	0	0/TBD	0/TBD		0	0
Longliner over 40m	0	2	2		500	500
Longliner between 20 and 40m	13	16	16		1200	1200
Longliner less than 20m	1	11	11		300	300
For capacity expansion						
Baitboat	10	10	10		350	350
Other gears (specify)	*	*	*		500	500
Total fishing capacity	40	**50**	**50**		**5150**	**5150**
Quota					**5150**	**5150**
Initial quota						
Quota transfer made to XXX (if applicable)						
Quota transfer received from XXX (if applicable)						
Total adjusted quota (if applicable)					**5130****	**5130****

* For record (some 500 to 700 artisanal boats with LOA less than 7 m).
** Morocco has set aside a quota (20 t) for bycatch and potential dead discards

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS (INCLUDING FAD MANAGEMENT PLAN)

Name of CPC: SENEGAL

Year of Fishing Plan: 2021

1. Introduction

Senegal has a limit of 1,322 t for tropical tunas and has currently authorised fourteen (14) vessels greater than 20 m to fish for tropical tunas which comprise one (1) longline, six (6) baitboats and seven (7) purse seiners within the framework of its 2020 fishing plan. In addition, one (1) support vessel has been authorised.

Senegal is among the CPCs whose recent average catch of bigeye tuna exceeds 1000 t, and must apply a catch limit that is 10% below its recent average catch for the years of reference indicated in Rec. 19-02.

It was prohibited to fish off FADs with instrumental buoys from 1 January to 28 February 2020 throughout the Convention area, and from 1 January to 31 March 2021.

In addition to the quarterly tropical tuna catch declaration for national vessels, their bigeye tuna catches will be reported monthly, and weekly when 80% of the TAC is reached.

2. Details of fishing plan – For those with >1,000 t average catch

The Ministry of Fisheries has included in the new Maritime Fishing Code - Law 2015-18 of 13 July 2017 and its Implementing Decree No. 2016-1804, the obligation to maintain a logbook containing information on the vessel identity, date and times of fishing operations, areas, catches etc. A Ministerial Decision of 02/03/2017 establishes the conditions of use of this logbook and for the tuna fishery that model is that of ICCAT.

A Decision on transposition of the management measures provided for in Recommendation 19-02 will be prepared to facilitate their implementation.

	ICCAT requirement: (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and catch reductions (Part II)**	Reduction of effort of purse seiners. Closure of the bigeye tuna fishery when the established catch limit is reached. Voluntary limitation of the number of FADS with instrumental buoys to 200.	Maritime Fisheries Code and its implementing decree. Decision No. 03543 of 02/03/2017 establishing the logbook. Decision of 23 April 2021 on transposition of Rec. 19-02.	
2.	**Capacity limits (Part III)**	Temporary freeze on the number of purse seiners. Voluntary limitation of the number of FADS with instrumental buoys to 200.	Maritime Fisheries Code and its implementing decree and the Decisions to transpose ICCAT recommendations including that of 23 April 2021 regarding Rec. 19-02.	

3.	**Management of FADs and FAD closure(s)(Part IV)**	A circular has been sent to vessel owners to remind them about the relevant provisions of Recommendation 19-02. A team inspects all vessels on landing in the Port of Dakar, which is the only authorised port. A meeting has been held with vessel owners in relation to Recommendation 19-02. The VMS with which all vessels are fitted enable monitoring at any time of all areas frequented by the vessels. The FAD management plan has been updated. Implementation of the closure of the FAD fishery for purse seiners throughout the Atlantic from 1 January to 31 March 2021. Voluntary limitation of the number of FADS with instrumental buoys to 200. Embarking of onboard observers on purse seiners. Other provisions of Rec. 19-02.	Decision of 23 April 2021 to transpose ICCAT Recommendation 19-02.	
4.	**Control measures, including planned trials of electronic observers (Part V)**	At the authorised Port of Dakar there is a surveillance brigade that carries out on landing inspections on all vessels. Observers are systematically embarked on all flagged purse seiners.	Decision of 23 April 2021 to transpose ICCAT Recommendation 19-02.	
5.	**Other information / measures to be taken**			

3. Planned expansion of capacity in 2020 - for those with <1,000 t average catch

4. FAD management plan – 2020-2021 (Revised 2 February 2021)

Introduction

This FAD management plan has been prepared within the framework of implementation of ICCAT Rec. 19-02 establishing a a multi-annual conservation and management programme for tropical tunas.

This plan applies to Senegalese-flagged purse seiners and baitboats using FADs and associated electronic devices in the course of their fishing activities in Senegal's Exclusive Economic Zone and on the high seas.

It also applies to foreign purse seiners and baitboats operating in Senegal's EEZ.

4.1 Objectives

The objectives of the management plan are as follow:

- Improve scientific knowledge on FAD fishing;
- Regulate the use of FADs and associated electronic devices to minimise the potential impacts of high FAD density on the efficiency of purse seine fishery and interactions with other gears;
- Minimise the impact of FAD fishing on the productivity of bigeye and yellowfin tuna stocks under FADs;
- Minimise the impact of FAD fishing on non-target species, if applicable, including entanglement of marine species.
- Minimise the impact of FADs and FAD fishing on pelagic and coastal ecosystems, including by preventing the grounding of FADs in sensitive habitats or altering the pelagic habitat.

4.2 Definitions, description of FAD and associated devices

The following definitions apply to the management plan:

Fish aggregating devices: object, structure or permanent, semi-permanent or temporary device, of any material, either man-made or artificial, that is deployed and/or tracked and used to aggregate fish for subsequent catching. FADs can be anchored (aFAD) or drifting (dFAD).

Operational buoy: Any instrumental buoy, previously activated, turned on and deployed at sea, transmitting the positions and any other available information such as echosounder estimates.

FADs carry legible identification marks and/or an electronic device (GPS, echosounder, satellite transmitter…) that enable location of the FAD's position.

FAD associated beacons and buoys must carry legible series numbers for identification purposes.

4.3 Management measures

Recording of FAD information

FAD data

FAD deployment is submitted to the Ministry of Fisheries according to the established procedures.

Vessel masters keep onboard a FAD logbook with information on fishing activities and deployment operations and FAD use.

The information is as follows:

- FAD mark
- Beacon No.
- FAD type
- Type of visit
- Date and time
- Position
- Estimated catches
- Bycatch

Information on acquired beacons

Vessel owners must keep up-to-date a record of beacons acquired and report quarterly to the relevant fisheries administration the list of FADs deployed except for those found incidentally and the beacons acquired during the year.

Measures to reduce bycatch

FAD design

There are no restrictions on the design of FAD structures but they must meet minimum requirements in terms of lighting and the presence of devices to enable viewing of the FAD such as radar reflectors and carry markings and identifiers. Electronic devices, radiobeacons, echosounder beacons and satellite transmitters must carry markings and identifiers.

The surface structure of the FAD must not pose a risk in terms of entanglement of bycatch. For this reason, it should not be covered or if so, it should only be covered in a material with a minimum risk of bycatch entanglement.

The below surface elements should be exclusively be made from non-entangling material (e.g. rope or canvas).

Biodegradable material should be used as far as possible.

Mitigation measures

The use of buoys should limit to the extent possible bycatch of authorised and unauthorised species.

To manage interactions with other gears such as longlines, FAD deployment takes into account the presence of longlines in the deployment area.

Loss of FADs

Vessel owners must take all measures to prevent the loss of FADs and must as far as possible endeavour to recover them, if necessary.

Closure area and period

As regards ICCAT Rec. 19-02, FAD fishing for bigeye, yellowfin and skipjack tuna by purse seiners and baitboats, and FAD deployment are formally prohibited throughout the Atlantic from 1 January to 28 Febuary 2020 and from 1 January to 31 March 2021 throughout the Convention area.

Limits on number of FADs

The limit on the number of FADs with operational buoys are at all times fixed at 350 in 2020 and 300 in 2021, per vessel.

4.4 Implementation of management plan

Institutional responsibilities

The Directorate of Maritime Fishery coordinates implementation and monitoring of the FAD management plan. The operational aspects related to FAD management, in particular at-sea and in-port control are ensured by the Directorate of Fishery Protection and Surveillance. The Centre of Ocean Science Research in Dakar - Thiaroye provides scientific advice for implementation and monitoring of the management plan.

4.5 Information confidentiality

Information provided by vessel owners under this management plan is protected and can only be used for scientific purposes and for management of the tuna fishery.

4.6 Applicable period, monitoring and revision of the management plan

This management plan is applicable for two (02) years and will be revised if necessary.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels					*Total Estimated Capacity*				
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit*	*2018/ 2020 difference*	*2018*	*2019*	*2020*	*2021*	*2018/ 2020 difference*
Purse seiner over 40m	6	7	7	7		1	9863			11279	+1416
Purse seiner between 20 and 40m		0									0
Purse seiner less than 20 m		0									0
Longliner over 40m		0									0
Longliner between 20 and 40m		5	5	1		0	1788			620	-1168
Longliner less than 20m											
For capacity expansion											
Baitboat	7	5	6	6		-1	1836			2105	+269
Other gears (specify)											
Total fishing capacity										14004	
Quota											
Initial quota	NA	NA	NA	NA							
Quota transfer made to XXX (if applicable)	NA	NA									
Quota transfer received from XXX (if applicable)	NA	NA									
Total adjusted quota (if applicable)	NA	NA	NA	NA							

NB: Modification of initial and adjusted quotas: Initial quota: NA: Adjusted quota: NA Senegal does not account for a bigeye quota.

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS

Name of CPC: TRINIDAD AND TOBAGO

Fishing Plan Year: 2021

1. Introduction

The Government of Trinidad and Tobago seeks to provide the greatest possible economic opportunity for its citizens. In this regard the Government facilitates the development of national fleets as far as is possible in accordance with established fisheries management principles and regulations. Given the country's need to more tightly manage other fisheries, displaced and new fishing capacity will be encouraged to target tropical tunas.

Trinidad and Tobago has a single fleet that targets tropical tunas. The fleet consists solely of longliners and currently includes 19 longliners greater than 20 m LOA and 14 longliners between 15 and 20 m LOA.

2. Details of fishing plan – For those with >1,000 t *average catch*

Trinidad and Tobago's entire fleet of 19 longliners greater than 20 m LOA and 14 longliners between 15 and 20 m LOA targets yellowfin tuna and bigeye tuna, though currently, the primary target species is yellowfin tuna. The fleet's average catch of yellowfin tuna over the five-year period 2015 to 2019 was 1,064 t; while that of bigeye tuna over the same period was 34 t and Trinidad and Tobago's recent average catch of bigeye tuna as defined by Recommendation 19-02 is 49.47 t. The fleet does not catch eastern skipjack tuna as it currently operates west of the 30° W meridian.

It is estimated that Trinidad and Tobago's longline fleet capacity will increase in 2021 as a result of the expansion in size of one longliner, the estimated inclusion of 2 new longliners and the transfer to the fleet of an estimated 2 vessels that currently engage in demersal trawling.

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and Catch reductions (Part II)**	Catches are monitored through a trip reporting system whereby vessel owners report on catches subsequent to fishing trips. Verification of a large proportion of the data provided is achieved through cross-checking customs export forms and Statistical Document Program forms.	The Government of Trinidad and Tobago has advanced in the strengthening of its national legislative framework to effectively discharge the country's international obligations as a coastal, flag, port and market State. The Draft Fisheries Management Bill was laid in Parliament in August 2020 and is currently undergoing review by a Joint Select Committee of the Parliament. Additionally, Regulations to	

			facilitate implementation of the registration and licensing system, and monitoring, control and surveillance are being developed.	
2.	**Capacity Limits (Part III)**	Same as above	Same as above	
3.	**Management of FADs and FAD Closure(s)(Part IV)**	Not applicable; Trinidad and Tobago has no purse seine and/or baitboat vessels fishing for tropical tunas.		
4.	**Control Measures, including planned trials of electronic observers (Part V)**	Trinidad and Tobago: 1) issues specific authorisations to its vessels fishing tropical tunas; 2) notifies the list of authorised vessels to ICCAT according to the established guidelines; 3) notifies the list of authorised vessels that fished tropical tunas in the Convention area in the previous year to ICCAT according to the established guidelines.	Same as above	
5.	**Other information / measures to be taken**			

3. Planned an expansion of capacity in 2021- for those with <1,000 t average catch

Not applicable. Trinidad and Tobago's average catch of tropical tuna is >1,000 t.

4. FAD Management Plans (if applicable)

Not applicable. Trinidad and Tobago has no purse seine and/or baitboat vessels fishing for tropical tunas.

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET					
	Number of Vessels			Total Estimated Capacity	
Type	2020	2021	Estimated best catch rate per unit (t)	2020	2021
Purse seiner over 40m	N/A				
Purse seiner between 20 and 40m	N/A				
Purse seiners less than 20m	N/A				
Longliner over 40m	N/A				
Longliner between 20 and 40m	19	24	30	1805	2280
Longliner less than 20m	14	13	30	560	520
For Capacity Expansion					
Baitboat	N/A				
Other gears (specify)	N/A				
Total fishing capacity				**2365**	**2800**
Quota					
Initial quota	N/A				
Quota transfer made to XXX (if applicable)	N/A				
Quota transfer received from XXX (if applicable)	N/A				
Total adjusted quota (if applicable)	N/A				

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels						*Total Estimated Capacity*			
Type	*2018*	*2019*	*2020*	*2021*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*	*2018*	*2019*	*2020*	*2021*	*Difference 2018 / 2020*
Purse seiner over 40m	N/A										
Purse seiner between 20 and 40m	N/A										
Purse seiners less than 20m	N/A										
Longliner over 40m	N/A										
Longliner between 20 and 40m	18	18	19	24	30	N/A	1710	1710	1805	2280	N/A
Longliner less than 20m	15	15	14	13	30	N/A	600	600	560	520	N/A
For Capacity Expansion											
Baitboat	N/A										
Other gears (specify)	N/A										
Total fishing capacity							**2310**	**2310**	**2365**	**2800**	
Quota											
Initial quota	N/A										
Quota transfer made to XXX (if applicable)	N/A										
Quota transfer received from XXX (if applicable)	N/A										
Total adjusted quota (if applicable)	N/A										

ANNUAL FISHING / CAPACITY MANAGEMENT PLAN FOR TROPICAL TUNAS

Name of CPC: Chinese Taipei

Fishing Plan Year: 2021

1. Introduction

The annual bigeye tuna catch limit for Chinese Taipei in 2021 is 10,617.31 t, composed of 9,226.41 t of initial catch limit, 1,167.9 t of carryover of underage from 2019, and transfer of 223 t from Korea. All of Chinese Taipei's fishing vessels authorized to catch or bycatch tropical tunas in the ICCAT Convention Area are large scale tuna longliners, and are categorized into 2 groups, bigeye tuna group and albacore tuna group. Chinese Taipei has enacted the *Act for Distant Water Fisheries* and relevant implementing regulations to monitor and control fishing activities of its fishing fleets.

2. Details of fishing plans – for those with > 1,000 average catch

	ICCAT Requirement (per 19-02)	*Explanation of CPC actions taken to implement*	*Relevant domestic laws or regulations (as applicable)*	*Note*
1.	**Catch limits and Catch reductions (Part II)**	Chinese Taipei's annual bigeye tuna catch limit in 2021 is 10,617.31 t, composed of 9,226.41 t of the initial annual catch limit, 1,167.9 t of underage carryover from 2019, and transfer of 223 t from Korea.	Article 22 of the Regulations for Tuna Longline Fishing Vessels Proceeding to Atlantic Ocean for Fishing Operation.	
2.	**Capacity Limits (Part III)**	(1) Chinese Taipei has limited the number of tuna longline fishing vessels operating in the ICCAT Convention area. (2) As of 18 January 2021, the cap for longliners targeting bigeye tuna (the bigeye tuna group) is 56, and that for longliners targeting Atlantic albacore tuna (the albacore tuna group) is 38. The total number of fishing vessels authorized does not exceed the cap.	Article 5, 9, and 32 of the Regulations for Tuna Longline Fishing Vessels Proceeding to Atlantic Ocean for Fishing Operation.	
3.	**Management of FADs and FAD Closure(s)(Part IV)**	Not applicable. All Chinese Taipei's fishing vessels operating in the ICCAT Convention area are tuna longline fishing vessels.	Not applicable.	

4.	**Control Measures, including planned trials of electronic observers (Part V)**	(1) Setting individual vessel quota; (2) Control over national catch limit; (3) Monitoring, control, and surveillance (MCS) measures such as vessel monitoring system (VMS), electronic logbook system, dispatching scientific observers, etc.	Article 22, 24, 33, 38, 63, 65, 67, and 68 of the Regulations for Tuna Longline Fishing Vessels Proceeding to Atlantic Ocean for Fishing Operation.	Please refer to the additional sheet for details.
5.	**Other information / measures to be taken**	N/A	N/A	

CAPACITY TABLE

TROPICAL TUNA VESSEL FLEET											
		Number of Vessels						*Total Estimated Capacity*			
Type	*2018*	*2019*	*2020*	*2021*1*	*Estimated best catch rate per unit (t)*	*Difference 2018 / 2020*2*	*2018*	*2019*	*2020*	*2021*1*	*Difference 2018 / 2020*2*
Purse seiner over 40m	0	0	0	0			0	0	0	0	
Purse seiner between 20 and 40m	0	0	0	0			0	0	0	0	
Purse seiners less than 20m	0	0	0	0			0	0	0	0	
Longliner over 40m	48	48	48	49			25,597 t	25,597 t	25,597 t	26,521 t	
Longliner between 20 and 40m	7	7	7	5			2,122 t	2,122 t	2,122 t	1,458 t	
Longliner less than 20m	0	0	0	0			0	0	0	0	
For Capacity Expansion											
Baitboat	0	0	0	0			0	0	0	0	
Other gears (specify)	0	0	0	0			0	0	0	0	
	0										
Total fishing capacity	55	55	55	54			27,719 t	27,719 t	27,719 t	27,979 t	
Quota											
Initial quota	11,679 t	11679 t	9,226.41 t	9226.41 t							
Quota transfer made to XXX (if applicable)											
Quota transfer received from XXX (if applicable)	Korea	Korea	Korea	Korea							
Total adjusted quota (if applicable)	13,653.85 t	13,653.85 t	11,201.26 t	10,617.31 t							

Notes:

*1: The number of vessels and estimated capacity for 2021 is as of 18 January 2021. There are 54 Chinese Taipei longliners targeting bigeye tuna. In addition, there are also 30 longliners targeting Atlantic albacore tuna which are allowed to bycatch bigeye tuna in the ICCAT Convention area.

*2: Paragraph 31 of Rec. 19-02 requires CPC to report the difference of fishing effort on FADs between 2018 and 2020. Since all of Chinese Taipei's fishing vessels operating in the ICCAT Convention area are tuna longliners, this requirement is not applicable to Chinese Taipei.

Details of Control Measures

(1) Setting individual vessel quota:

The Fisheries Agency (FA) of Chinese Taipei has set individual vessel quota for fishing vessels operating in the ICCAT Convention area so as not to exceed the adjusted quota allocated to Chinese Taipei. To allow the individual vessel quota to bet set and used more flexibly, some vessels of the bigeye tuna group have started to seasonally target albacore tuna since 2020, and a fishing vessel may transfer its individual quota to other vessel(s) under the supervision and permission of the FA.

In the event that the bigeye tuna catch amount of a tuna longliner reaches 90% of its individual vessel quota, the FA may order such vessel to stop catching bigeye tuna within a deadline.

(2) Control over national catch limit:

Should the total bigeye tuna catch amount of the whole fleet operating in the ICCAT Convention area reach 95% of the adjusted quota for Chinese Taipei, the FA can order the whole fleet to stop catching bigeye tuna by a deadline.

(3) Monitoring, control, and surveillance (MCS) measures:

In accordance with domestic law and regulations, the FA has required fishing vessels engaged in distant water fisheries to be installed with the vessel monitoring system (VMS) and electronic logbook (E-logbook) system. Raising the transmission frequency of the VMS to every hour since 2018 has allowed for more effective monitor. Furthermore, fishermen shall daily report catch data through the E-logbook system and shall also fill in the paper logbooks, in spite of zero catch. Reporting catch data on a daily basis allows the FA to monitor the catch amount in almost real-time and ensures that Chinese Taipei meet the requirements set forth in Rec. 19-02.

For the purpose of verifying catch reports, Chinese Taipei will continue dispatching scientific observers on board tuna longliners operating in the ICCAT Convention area to collect fishing-related data. In 2021, the FA will endeavour to ensure a minimum of 5% observer coverage rate for fishing vessels of the bigeye tuna group and the albacore tuna group respectively. However, the impact and restrictions as a result of the COVID-19 pandemic should be taken into consideration. Other MCS measures include requiring the submission of landing declarations, random port inspections, reviewing statistical documents and sales data, as well as crosschecking data and information from the ICCAT Regional Observer Program for at-sea transshipment.