

Original: English

**EXPLANATORY NOTE TO REVISED THIRD DRAFT PROPOSAL FOR A RECOMMENDATION BY ICCAT  
TO REPLACE RECOMMENDATION 16-01 BY ICCAT ON A MULTI-ANNUAL CONSERVATION  
AND MANAGEMENT PROGRAMME FOR TROPICAL TUNAS**

*Draft revised by South African after discussions with several CPCs*

This revised version of the Rev3 of the Chairs Proposal has been developed by South Africa. It is an attempt to reflect the views gathered in discussions with several CPCs over the past two days.

This is not an agreed position, but a basis on which the Small Group of CPCs propose PA1 discussions continue.

The colour coding is a mechanism to reflect:

- Green – areas where we see a general convergence of views;
- Yellow – areas where we see a convergence emerging, with few divergent views among CPCs;
- Pink – areas where we have heard a range of divergent views that may be difficult to find consensus.

The comments in blue boxes and text below some paragraphs provide a summary of our view of the current status of discussions on that paragraph. They should not be viewed as proposed texts or positions, and do not detail every view that we have heard.

Any new text in this revision to Rev3 is underlined.

Provisions that are not highlighted indicate areas where we have not discussed or been provided with specific comments on.

Original: English

**REVISED THIRD DRAFT PROPOSAL FOR A RECOMMENDATION BY ICCAT TO REPLACE  
RECOMMENDATION 16-01 BY ICCAT ON A MULTI-ANNUAL CONSERVATION  
AND MANAGEMENT PROGRAMME FOR TROPICAL TUNAS**

*Draft revised by South African after discussions with several CPCs*

*RECALLING* the current multi-annual conservation and management programme for tropical tunas;

*NOTING* that the stocks of bigeye and yellowfin tuna are currently overfished, and that bigeye tuna is also subject to overfishing;

*RECOGNISING* that the TAC for bigeye tuna for 2017 was exceeded by more than 20% and that this level of catch is projected to reduce the probability to reach the Convention objectives by 2028 is less than 10%;

*ACKNOWLEDGING* that the TAC for yellowfin tuna was also exceeded in 2016 by 37% in 2016 and by 26% in 2017;

*[TAKING INTO ACCOUNT* that Recommendation 11-13 on the Principles for Decision Making on Conservation and Management Measures of ICCAT mandates that for stocks that are overfished and subject to overfishing (i.e., stocks in the red quadrant of the Kobe plot), the Commission shall immediately adopt management measures, taking into account, *inter alia*, the biology of the stock and SCRS advice, designed to result in a high probability of ending overfishing in as short a period as possible. In addition, the Commission shall adopt a plan to rebuild these stocks taking into account, *inter alia*, the biology of the stock and SCRS advice];

*[TAKING FURTHER INTO ACCOUNT* that it is necessary to explore alternative and more effective systems or regimes for the management of tropical tunas and for this the SCRS recommendation is required;]

*CONSIDERING* that the SCRS continues to recommend that effective measures be found to reduce FAD-related and other fishing mortality of small yellowfin and bigeye tuna;

*TAKING INTO ACCOUNT* the recommendations made by the Panel on the Second ICCAT Performance Review regarding the carryover of underage of catches from one year to another;

*FURTHER TAKING INTO ACCOUNT* the recommendations made by the first meeting of the Joint Tuna RFMO FAD Working Group and the third meeting of ICCAT's *Ad Hoc* Working Group on FADs, on FAD management objectives and the availability of FAD management measures to reduce juvenile tuna mortality;

*NOTING* that the SCRS has advised that increased harvests on FADs as well as other fisheries as well as development of new fisheries could have had negative consequences for the productivity of bigeye and yellowfin tuna fisheries (e.g. reduced yield at MSY);

*FURTHER NOTING* that [supply / support<sup>1</sup>] vessels contribute to the increase in efficiency and capacity of purse seiner vessels using FADs and that the number of [supply / support] vessels has increased significantly over the years;

*RECALLING* the significant body of international law that promotes the special requirements and rights of developing States, including but not limited to Article 119 of UNCLOS and Article 25 and Part VII of UNFSA;

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<sup>1</sup> [Suggest "supply" vessel is changed to "support" vessel throughout].

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION  
OF ATLANTIC TUNAS (ICCAT) RECOMMENDS THAT:

**PART I**  
**GENERAL PROVISIONS**

***[Interim Conservation and Management Measures]***

x. Without prejudice to the allocation of fishing rights and opportunities to be adopted in the future, for the years 2020 and 2021, the Contracting Parties and the Cooperating Non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as CPC) the vessels that have been actively fishing for tropical tunas in the Atlantic will apply the following interim management measures with the objective of reducing current levels of fishing mortality of tropical tunas, in particular small bigeye and yellowfin, while the Commission obtains scientific advice to adopt a long term multi-annual management and reconstruction plan.]

There is general recognition that some elements in the measure should have a limited term, while there may also be longer term elements and objectives also contained in the measure.  
Further discussion is needed on the term of the measure, and specific elements of the measure.

***Multi-annual Management, Conservation, and Rebuilding Programme***

1. The Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as CPCs), whose vessels have been actively fishing for tropical tunas in the Atlantic shall implement a [10 - 15 year] Rebuilding Programme Plan for bigeye tuna starting in 2020 and continuing through [2029 - 2034], with the goal of achieving  $B_{MSY}$  with a probability of more than [50 - 60%]. [CPCs shall also implement management measures with the objectives of ensuring that the stocks of yellowfin and skipjack tuna continue to be exploited sustainably.]

A majority of CPCs that spoke during Panel 1 supported a 15-year period for recovery and a 60% probability of  $B_{MSY}$ . However, some CPCs are of the view that the rebuilding objectives should be consistent with the TAC, so this provision should be revisited once the TAC is determined.

[...]

**PART II**  
**CATCH LIMITS**

***Catch limits for bigeye tuna***

2. The Total Allowable Catch (TAC) for bigeye tuna shall be [50,000 – 61,500 t] for 2020, 2021, and 2022 62,500 t [in the first year and 61.500 t in the following year/s].

[...]

Most CPCs spoken with are prepared to compromise to a TAC of 62,500 t. Some of those CPCs would prefer that it stays at 62,500 t for the following 2 or 3 years, until for example the bigeye stock assessment indicates changes are necessary. Some other CPCs would prefer if it was reduced to 61,500 t in year 2.

3. [CPCs with bigeye tuna catches exceeding [1,250 – 1,575 t] in any of the preceding five years or CPCs that currently flag purse seiners engaged in the tropical tuna fishery in the Atlantic Ocean will be assigned annual quotas, which, account for [XX%] of the TAC in 2019, noting that the overall share of the TAC may change, as follows:

<u>CPC</u>	<u>Annual Catch Limit for period 2020-2022 (t)</u>

[3 bis. CPCs that are developing coastal States<sup>2</sup> will receive [xx % / xx t] of the TAC in [year 1 / 2020-20xx], which will be implemented in accordance with the following CPC annual catch limits:

<u>Developing Coastal State CPCs</u>	<u>Annual Catch Limit [for period 2020-2022 (t)]</u>

[3 ter. All other CPCs<sup>3</sup> will receive [xx% / xx t] of the TAC in [year 1 / 2020-20xx], which will be implemented in accordance with the following CPC annual catch limits:

<u>Other CPCs</u>	<u>Annual Catch Limit [for period 2020-2022 (t)]</u>

[3 quater. The proportional allocation of the TAC represented in paragraphs 3 bis and 3 ter will be redistributed over time to increase the TAC share for the developing coastal States to [xxx%] by [20xx / other period related to recovery of the stock]. The mechanism to achieve this redistribution is [TBD].]

[3 quinques. This distribution of the TAC outlined in 3 quarter and the catch limits outlined in 3 bis and 3 ter [only for the term of this measure / a certain period], do not constitute long term rights and are without prejudice to any formal process of allocation.]

<sup>2</sup> CPCs in this group include: Brazil, Ghana, Curaçao, Cabo Verde, Panama, Belize, Senegal, Guatemala, Côte d'Ivoire, St. Vincent and the Grenadines, São Tomé & Príncipe, Morocco, Namibia, South Africa, Guinea (Rep.), Venezuela, Trinidad & Tobago, Liberia, Equatorial Guinea, Mexico, Angola, Gabon, Guinea Bissau, Honduras, Libya, Mauritania, Nicaragua, Uruguay, Sierra Leone, Nigeria.

<sup>3</sup> CPCs in this group include: European Union, Chinese Taipei, Japan, China PR, [El Salvador], United States, Korea (Rep.), Philippines, Canada, United Kingdom (Overseas Territories), France (St Pierre & Miquelon), Russia.

There is an emerging convergence of views on the approach to allocation being as follows:

- The TAC is split between two groups (1) developing coastal States, and (2) all other CPCs.
- The proportional split of the TAC between the two groups will change over time in accordance with the goal of redistribution toward developing coastal States.
- The split of the TAC across two tables represents different contributions of the two groups to the necessary reductions.
- CPC catch limits are provided in two tables in accordance with the two groups.
- Each group will decide among themselves how their group's TAC is to be allocated, for example:
  - the determination of thresholds for CPC-specific catch limits,
  - rules applying to smaller harvesting countries (e.g. a floor catch limit, or a catch threshold for the development of a CPC specific limit),
  - CPC specific catch limits.
- Each group may allocate catch limits among their group on the basis of different principles or criteria. Such criteria could for example include CPC fishing plans, special consideration of artisanal fisheries, or other criteria listed in Recommendation 15-13.
- The catch limits (or rules) that apply to developing coastal States need to allow for some reasonable flexibility for the development of fishing opportunities for those countries.

The intent of this approach is to:

- Two tables reiterate recognition of Developing Coastal State CPCs' rights to development.
- It provides a transparent mechanism to redistribute the TAC, from the current inequitable allocation in favor of industrialised distant water fishing fleets, to a more equitable distribution for Developing Coastal States. This redistribution will happen both in the short term and over the longer term.

While there is some converging views on the approach outlined in *3 bis – 3 quarter*, for some CPCs agreement to this approach is contingent upon various matters including agreement on either the allocation of catch limit / rules within the group, or alternatively agreement on a process and/or mechanism to agree the allocations of catch limits/rules within each group.

There has been little discussion yet and no convergence yet emerging on a range of matters, including (but not limited to) how groups might allocate their share of the TAC among themselves (i.e. the rules and criteria used for allocation by each group), and which CPCs might have an explicit catch limit and be individually listed in tables.

4. CPCs listed in paragraph 3 shall ensure that the relative contribution of purse seine caught bigeye tuna to the total quota allocation shall not exceed the [2015 level].

[4 bis. No new purse seine fisheries shall be initiated or authorized while the stock is undergoing rebuilding. No CPC shall shift bigeye tuna catch from non-purse seine vessels to purse seine vessels.]

[4 ter. Placeholder – Japan and Korea may request transfer provisions]

5. [CPCs that are not developing coastal States not listed in paragraph 3 shall not increase catches above [1,575 t] in 2020, 2021, and 2022.]

6. [If the catch of bigeye tuna of any developing coastal State CPC not listed in paragraph 3 exceeds [2,100 t] in 2020, 2021, and 2022, a catch limit shall be established for that CPC for the following years. The catch limit shall be agreed with due consideration to the rights of developing coastal States, the circumstances at hand, and the sustainability of the stock.]

As noted above, a range of diverse views have been received from CPCs on:

- The average catch that a CPC must have in order to be individually listed in the tables and receive an CPC-specific catch limits,
- The minimum catch limit a CPC (developed or developing) can receive,
- The average catch that a developing coastal State CPC can have before an explicit catch limit is developed for that country,
- The historical catch reference period to be used for the thresholds and the development of the catch limits.

7. The provisions of paragraph 3, 4, 5 and 6 shall not prejudice the rights and obligations under international law of those developing coastal CPCs in the Convention Area whose current fishing activity for bigeye tuna is limited or non-existent, but that have a real interest in fishing for the species, that may wish to develop their own fisheries bigeye tuna in the future. CPCs shall implement robust monitoring, control and surveillance measures, as applicable in relation to their capacity and resources.

8. The annual quotas and catch limits described in this Recommendation do not constitute long term rights and are without prejudice to any formal process of allocation.

9. [Each quarter, CPCs shall report to the Secretariat their bigeye catches taken by their flag vessels at the end of the following quarter.] When 80% of the TAC is reached for a given year, the Secretariat shall notify that to all CPCs.

A convergence of views is emerging on the need for robust reporting, verification and compliance mechanisms for the implementation of the TAC and catch limits.

Various views have been expressed on the relevant period for reporting (including weekly, monthly and quarterly).

Additional texts will need to be developed to capture this intent in this measure, while referring to appropriate other Recommendations and Resolutions of the Commission.

~~/9 bis. Placeholder — USA may request rigorous reporting requirements/~~

10. If the total catch exceeds in any year the TAC in paragraph 2, the Commission shall review these measures.

#### ***Underage or overage of catch of bigeye tuna***

11. Overage of an annual catch limit for CPCs listed in paragraph 3 for bigeye tuna shall be deducted from the annual catch limit as follows:

<i>Year of catch</i>	<i>Adjustment Year</i>
2018	2019 or 2020
2019	2020 or 2021
2020	2021 or 2022
2021	2022 or 2023

12. Notwithstanding paragraph 11, if any CPC exceeds its catch limit under paragraph 3 or 5:
- In one year, then the amount deducted in the adjustment year shall be determined as 100% of the overage; and
  - During any two consecutive years, the Commission will recommend appropriate measures, which shall include reduction in the catch limit equal to 125% of the excess harvest.
13. The maximum underage that a CPC may carry over in any given year shall not exceed 5% of its annual initial catch limit. Carry over of underage shall be reviewed by the Commission in 2023.

**[Monitoring of catch]**

**13 bis.** Each CPC shall ensure that from wherever the vessel may be at sea, at the conclusion of fishing activities its purse seine vessels communicate to their authorities catch information including estimated weight of bigeye tuna onboard, by satellite phone or any other effective means.

**13 ter.** CPCs shall send weekly to the ICCAT Secretariat the reports from purse-seiners described above. On the basis of that information, the ICCAT Secretariat shall circulate weekly provisional catch reports to all CPCs.

**13 quarter.** CPCs shall report to the ICCAT Secretariat the dates when their entire quota of bigeye tuna has been utilized. The ICCAT Secretariat shall promptly circulate this information to all CPCs.

**13 quinquies.** When 80% of the TAC is reached for a given year, the Secretariat shall notify that to all CPCs.]

As noted above, a convergence of views is emerging on the need for robust reporting, verification and compliance mechanisms for the implementation of the TAC and catch limits, however existing text needs to be reviewed and revised.

**TAC for yellowfin tuna**

**14.** {The annual TAC for 2020 and subsequent years of the Multi-annual Programme in 110,000 t for yellowfin tuna and shall remain in place until changed based on scientific advice.}

**15.** {Based on the stock assessment and SCRS advice, the Commission shall adopt additional conservation measures for yellowfin tuna at the 2020 annual meeting, which may include a revised TAC, closures or allocated catch limits.}

**16.** If the total catch exceeds in any year the TAC in paragraph 14, the Commission shall consider additional management measures for yellowfin tuna {at the 2020 annual meeting}. Any other measures shall recognise the obligations of international law and the rights of CPC developing coastal States.

**Fishing Plans**

**[16 bis.** CPCs should provide ICCAT with a statement on how they will implement any catch reductions necessary as a result of paragraphs 3 bis and 3 ter.]

**16 ter.** Any developing CPC intending to increase its participation in ICCAT fisheries for tropical tuna shall endeavor to prepare a statement of its development intentions for tropical tuna with the purpose of informing other CPCs of potential changes in the fishery over time. These statements will include details of proposed/potential fleet additions, including vessel size and gear type. The statements shall be submitted to the ICCAT Secretariat and be made available to all CPCs. Those CPCs may amend their Statement as their situation and opportunities change.

There is a convergence of views on the benefits of fishing plans.

A suggestion has also been made that some form of fishing plan or statement could be used as a mechanism for CPCs to demonstrate how they will meet required catch reductions. This is one mechanism that has been suggested to improve confidence that the new TAC and catch limits will be complied with.

The new 16 ter above is the text from 17(e) in the Chairs Rev3. It has been moved here given its alignment with the new 16 bis.

### PART III CAPACITY MANAGEMENT MEASURES

#### *Capacity limitation for tropical tuna*

17. A capacity limitation shall be applied for the duration of the Multi-annual Programme, in accordance with the following provisions:

- a) [The capacity limitation shall apply to longline and purse seine vessels flagged to CPCs specified in the table under paragraph 3 that are 20 meters length overall (LOA) or greater fishing bigeye tuna in the Convention area;]
- b) [By 31 January each year, each CPC fishing for tropical tuna shall produce an annual capacity/fishing plan that outlines how that CPC will ensure that its overall longline and purse seine fleet capacity will be managed to ensure that the CPC can meet its obligation to limit bigeye catches according to the table under paragraph 3, and its yellowfin and skipjack catches consistent with the catch limit established under paragraph 13, 15 and 16.]
- c) [By 31 January each year, each CPC that has a limit under paragraph 3 shall produce an annual capacity plan that outlines how that CPC will ensure that its overall longline and purse seine fleet capacity will be at or below a the level [of 20XX] of recent years] to ensure that the CPC can meet its obligation to limit bigeye catch according to the table under paragraph 3.]
- b) ~~Ghana shall be allowed to change the number of its vessels by gear type within its capacity limits communicated to ICCAT in 2005, on the basis of two baitboats for one purse seine vessel. Such change must be approved by the Commission. To that end, Ghana shall notify a comprehensive and detailed capacity management plan to the Commission at least 90 days before the Annual Meeting. The approval is notably subject to the assessment by the SCRS of the potential impact of such a plan on the level of catches.~~
- d) For CPCs for which a capacity limitation applies, vessels fishing tropical tunas in the Convention area may be replaced only by vessels of equivalent capacity or lesser vessels.

There are divergent views on capacity management and limits. Some CPCs feel strongly that capacity limits are necessary to prevent the potential for reduced catch limits to cause effort to shift to countries with less restrictive catch limits. Other CPCs are concerned that such capacity limits may undermine the sovereign rights of developing coastal States to develop fishing opportunities.

Further consideration of capacity management mechanisms that do not unduly restrict the rights of developing coastal States is needed.

- e) ~~Any developing CPC intending to increase its participation in ICCAT fisheries for tropical tuna shall endeavor to prepare a statement of its development intentions for tropical tuna with the purpose of informing other CPCs of potential changes in the fishery over time. These statements will include details of proposed/potential fleet additions, including vessel size and gear type. The statements shall be submitted to the ICCAT Secretariat and be made available to all CPCs. Those CPCs may amend their Statement as their situation and opportunities change.~~



This provision has been moved to 16 ter.

- e) The Compliance Committee shall annually review CPCs compliance with capacity management measures.
- 17 bis. Any CPC having vessels that operate, part-time or full-time, in support of purse seiners shall report the names and characteristics of all of their vessels to the ICCAT Secretariat, including which of those vessels were active in 2019 in the Area of Competence of ICCAT, and the names of the purse seiner(s) that received the support of each support vessel. This information shall be reported no later than 31 January 2020. The Secretariat shall prepare a report for the Commission to be able to consider the type of limitation that support vessels shall be subject to in the future, including a phasing-out plan, where required. Notwithstanding this, CPCs shall not increase the number of support vessels as from the numbers recorded by the time of adoption of this measure.
- 17 ter. Starting in 2020, CPCs shall limit their number of support~~[/supply]~~ vessels, to a maximum of {1 support~~[/supply]~~ vessels for a minimum of 5} authorised purse seiners operating in the context of FADs related fisheries<sup>4</sup>.
- 17 quater. For the purposes of this measure, a ~~[supply support]~~ vessel is defined as any vessel that carries out activities in support of purse seine vessels that increases the efficiency of their operations including, but not limited to deploying, servicing and retrieving FADs.

[...]

**PART IV**  
**MANAGEMENT OF**  
**[FADs / FISHING ACTIVITIES ON FLOATING OBJECTS – FOBs]**

***[FAD / Floating Objects] Management Objectives***

18. The general objectives for management of [FADs / FOBs] and ~~[supply support]~~ vessels in the Convention area are defined as follows:
- a) To minimize potential impacts that high [FAD / FOB] density may have on purse seine fishing efficiency, while minimizing disproportionate impacts to the fishing opportunities of fleets that use other gear or other fishing strategies while also targeting tropical tunas;
  - b) To minimize the impact of [FAD / FOB] fishing on the productivity of bigeye and yellowfin stocks that result from the capture of high numbers of juveniles that aggregate with skipjack on FADs;
  - c) To minimize the impact of [FADs / FOBs] fishing on non-target species, where appropriate, including entanglement of marine species, particularly those of conservation concern;
  - d) To minimize the impact of FADs and FAD fishing on pelagic and coastal ecosystems, including by preventing the beaching, stranding or grounding of FADs in sensitive habitats or the alteration of pelagic habitat.

<sup>4</sup> CPCs with less than 5 purse seine vessels may have one supply vessel.

*[FAD / FOB] Closure*

[18.bis For the purpose of this Recommendation, the following definitions shall apply:

- 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 accidentally 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).
- iii. FAD set: setting a fishing gear around a tuna school associated with a FAD.
- iv. Operational buoy: Any instrumented buoy, previously activated, switched on and deployed at sea, which transmits position and any other available information such as eco-sounder estimates.
- v. Activation: 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.]

19. In order to reduce the fishing mortality of juvenile bigeye and yellowfin tuna, purse seine and baitboat vessels fishing for, or vessels supporting activities to fish for bigeye, yellowfin and skipjack tunas in association with [FADs / floating objects] in the high seas or EEZs shall be prohibited during a [three] [two or four] month period between 1 January and [31 March] [28 February or 30 April] each year throughout the Convention Area. This should be reviewed and, if necessary, revised based on advice by the SCRS taking into account monthly trends in free school and FAD-associated catches [FOB associated catches and the monthly variability in the proportion of juvenile tuna in catches. SCRS should provide this advice to the Commission in 2020.]

Most CPCs spoken to were of the view that they could accept a three-month FAD closure. Some CPCs specified that this compromise is contingent upon other elements of the measure including an improved definition of a FAD set, sufficiently robust compliance and monitoring mechanisms to support the FAD closure. Most CPCs were of the view that the FAD closure should apply to the whole Atlantic. However, some CPCs are of the view that it should be limited to the area specified in Rec. 16-01. Whether the closure applies to FOBs or FADs has not been discussed.

19 bis. In addition, each CPC shall ensure its vessels:

- a) do not deploy drifting FADs during a period of 15 days prior to the start of the selected closure period; and
- b) recover within 15 days prior to the start of the closure period a number of drifting FADs equal to the number of drifting FADs previously set upon during the previous two months.

~~19 ter. — By derogation to paragraph 19, the above closure period mentioned should be restricted to [one month or 6 weeks] between 1 January and [31 January or 15 February], for vessels requesting and respecting the following criteria:~~

- ~~a) no more than 100 drifting FADs shall be deployed with or without instrumented buoys during each calendar year, without prejudice to the provisions of paragraph 15;~~
- ~~b) no new FAD, with or without instrumented buoys, shall be deployed during the full closure period referred to under paragraph 19 of this recommendation;~~
- ~~c) 100% human observer coverage shall be achieved on all vessels concerned at all times;~~

d) FAD sets shall be limited to 75% of the level specified in paragraph 21; and

e) the list of vessels requesting this derogation shall be communicated to the ICCAT Secretariat by the flag CPCs of the vessels concerned before the 1 of January each year. In addition, and in line with the provisions of paragraph 24, CPCs shall also include the list of vessels concerned by this derogation in their FAD annual management plan.

Most CPCs are of the view that potential derogations or exceptions to the FAD closure (all or part) should not be included in the measure, as they would undermine the effectiveness of the FAD closure. However, some CPCs would like to see the measure contain mechanisms to incentivise vessels to reduce their use of FADs.

### **FAD Limitations**

20. CPCs shall ensure that for vessels flying their flag shall apply the following limits on the number of [FADs / FOBs] with instrumental [operational buoys] ~~are active~~ at any one time ~~[in relation according to definitions given in article 18bis. The number of FOBs with operational buoys will be verified to each of its vessels]~~ through the verification of telecommunication bills. Such verifications shall be conducted by the competent authorities of the CPCs:

- a) [2020: 300 [FADs / operational buoys] per vessel
- b) 2021: 250 [FADs / operational buoys] per vessel
- c) 2022: 200 [FADs / operational buoys] per vessel]

20 bis [FADs / Buoys] shall be activated on the vessel at the time of their deployment and shall remain active until they are retrieved or lost.

21. [With a view to establishing FADs set limits to keep the catches of juvenile tropical tunas at a sustainable level, in 2021 SCRS should inform the Commission about the maximum number of FADs sets which should be established per vessel of per CPC. To support this analysis, CPCs with purse seine vessels shall urgently undertake to report to the SCRS by 31 July 2020 the required historical FAD set data. CPCs that do not report these data in accordance with this paragraph shall be prohibited from setting on FADs until such data have been received by the SCRS. ~~CPCs with purse seine vessels shall limit the number of floating object sets to 2015 levels<sup>5</sup>.~~]

22. CPCs may authorize their purse seine vessels to set on floating objects provided that the fishing vessel has either an observer or a functioning electronic monitoring system on board which is capable of verifying set type, species composition, and providing information on fishing activities to the SCRS.

23. Further analysis shall be conducted by the SCRS on the impact of ~~[supply support]~~ vessels on the catches of juvenile yellowfin and bigeye tuna to be considered in 2020.

### **FAD Management Plans**

24. CPCs with purse seine and/or baitboat vessels fishing for bigeye, yellowfin and skipjack tunas in association with [FADs / FOBs], shall submit to the Executive Secretary Management Plans for the use of aggregating devices by vessels flying their flag by 31 January each year.

25. The objective of the FAD Management Plans shall be to:

- i. improve the knowledge about FAD characteristics, buoy characteristics, FAD fishing, including fishing effort of purse seiners and associated support vessels, and related impacts on targeted and non-targeted species;

<sup>5</sup> In the case of developing CPCs with growing domestic fleets, the baseline used for each vessel in the fleet shall be the first full year that the vessels operated under that CPC's flag.

- 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 the fishing mortality (e.g. number of deployed FADs, including number of FAD's set by purse seiners, fishing capacity, number of support vessels).
26. The Plans shall be drawn up by following the Guidelines for Preparation for FAD Management Plans as provided in **Annex 1**.

***FAD logbook and list of deployed FADs***

27. CPCs shall ensure that all purse seine and baitboat fishing vessels and all support vessels (including supply vessels) flying their flag, and/or authorized by CPCs to fish in areas under their jurisdiction, when fishing in association with or deploying fish aggregating devices (FADs), collect and report, for each deployment of a FAD, each visit on a FAD, whether followed or not by a set, or each loss of a FAD, the following information and data:
- a) Deployment of any FAD
    - i. Position
    - ii. Date
    - iii. FAD type (anchored FAD, drifting artificial FAD)
    - iv. FAD identifier (i.e., FAD Marking and buoy ID, type of buoy – e.g. simple buoy or associated with echo-sounder)
    - v. FAD design characteristics (material of the floating part and of the underwater hanging structure and the entangling or non-entangling feature of the underwater hanging structure)
  - b) Visit on any [FAD / FOB]
    - i. Type of the visit (deployment of a FAD and/or buoy<sup>6</sup>, retrieving FAD and/or buoy, strengthening/consolidation of [FAD / FOB], intervention on electronic equipment, random encounter (without fishing) of a log or a FAD belonging to another vessel, visit (without fishing) of a FAD belonging to the vessel, fishing set on a FAD<sup>7</sup>)
    - ii. Position
    - iii. Date
    - iv. FAD type (anchored FAD, drifting natural FAD, drifting artificial FAD)
    - v. [Log description or] FAD identifier (i.e., FAD Marking and buoy ID or any information allowing to identify the owner)
    - vi. [Buoy ID]
    - vii. If the visit is followed by a set, the results of the set in terms of catch and by-catch, whether retained or discarded dead or alive. If the visit is not followed by a set, note the reason (e.g. not enough fish, fish too small, etc.)
  - c) Loss of any FAD
    - i. Last registered position
    - ii. Date of the last registered position
    - iii. FAD identifier (i.e., FAD Marking and buoy ID)

For the purpose of the collection and the report of the information referred to above and where paper or electronic logbooks already in place do not allow it, CPCs shall either update their reporting system or establish FAD-logbooks. In establishing FAD logbooks, CPCs should consider using the template laid down in **Annex 2** as reporting format. When using paper logbooks, CPCs may seek, with the support of the Executive Secretary, for harmonized formats. In both cases, CPCs shall use the minimum standards recommended by SCRS in **Annex 3**.

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<sup>6</sup> Deploying a buoy on a FAD includes three aspects: deploying a buoy on a foreign FAD, transferring a buoy (which changes the FAD's owner) and changing the buoy on the same FAD (which does not change the FAD's owner).

<sup>7</sup> A fishing set on a [FAD / FOB] includes two aspects: fishing after a visit to a vessel's own [FAD / FOB] (targeted) or fishing after a random encounter of a FAD (opportunistic).

28. CPCs shall also ensure that all vessels referred to in paragraph 20 keep updated on a monthly basis and per 1°x1° statistical rectangles a list of deployed FADs and buoys, containing at least the information as laid down in **Annex 4**.

***Reporting obligations on FADs and on support vessels***

29. CPCs shall ensure that the following information is submitted every year to the Executive Secretary in a format provided by the ICCAT Secretariat. This information shall be made available to the SCRS and to the Ad Hoc Working Group on FADs in a database developed by the ICCAT Secretariat:
- the number of FADs actually deployed on a monthly basis per 1°x1° statistical rectangles, by FAD type, indicating the presence or absence of a beacon/buoy or of an echo-sounder associated to the FAD and specifying the number of FADs deployed by associated support vessels, irrespective of their flag;
  - the number and type of beacons/buoys (e.g. radio, sonar only, sonar with echo-sounder) deployed on a monthly basis per 1°x1° statistical rectangles;
  - the average numbers of beacons/buoys activated and deactivated on a monthly basis that have been followed by each vessel;
  - average numbers of lost FADs with active buoys on a monthly basis;
  - for each support vessel, the number of days spent at sea, per 1° grid area, month and flag State;
  - purse seine and baitboat catches, efforts and number of sets (for purse seines) by fishing mode (floating-object associated schools and free school fisheries) in line with Task II data requirements (i.e. per 1°x1° statistical rectangles and per month);
  - when the activities of purse seine are carried out in association with baitboat, report catches and effort in line Task I and Task II requirements as "purse seine associated to baitboats" (PS+BB).

***Non-entangling and biodegradable FADs***

30. In order to minimize the ecological impact of FADs, in particular the entanglement of sharks, turtles and other non-targeted species, and the release of synthetic persistent marine debris, CPCs shall:
- Ensure that all FADs deployed are non-entangling in line with the guidelines under **Annex 5** of this Recommendation, in accordance with previous ICCAT Recommendations;
  - Ensure that as of January 2021 all FADs deployed are non-entangling, and constructed from biodegradable materials including non-plastics with the exception of materials used in the construction of FAD tracking buoys;
  - Report on an annual basis on the steps undertaken to comply with these provisions in their FADs Management Plans.

**PART V**  
**CONTROL MEASURES**

***Specific authorization to fish for tropical tunas***

31. CPCs shall issue specific authorizations to vessels 20 meters LOA or greater flying their flag allowed to fish bigeye and/or yellowfin and/or skipjack tunas in the Convention area, and to vessels flying their flag used for any kind of support of this fishing activity (hereafter referred to as "authorized vessels").

***ICCAT Record of authorized tropical tuna vessels***

32. The Commission shall establish and maintain an ICCAT record of authorized tropical tuna vessels, including support vessels. Fishing vessels 20 meters LOA or greater not entered into this record are deemed not to be authorized to fish, retain on board, tranship, transport, transfer, process or land bigeye and/or yellowfin and/or skipjack tunas from the Convention area or to carry out any kind of support to those activities, including deploying and retrieving FADs and/or buoys.

33. A CPC may allow by-catch of tropical tunas by vessels not authorized to fish for tropical tunas pursuant to paragraph 31 and 32, if this CPC establishes a maximum onboard by-catch limit for such vessels and the by-catch in question is accounted for within the CPC's quota or catch limit. Each CPC shall provide in its Annual Report the maximum bycatch limit it allows for such vessels and information about how the CPC ensures compliance with the limit. That information shall be compiled by the ICCAT Secretariat and made available to CPCs.
34. CPCs shall notify the list of authorized vessels to the Executive Secretary in an electronic form and in accordance with the format set in the Guidelines for Submitting Data and Information Required by ICCAT.
35. CPCs shall, without delay, notify the Executive Secretary of any addition to, deletion from and/or modifications of the initial list. Periods of authorization for modifications or additions to the list shall not include dates more than 45 days prior to the date of submission of the changes to the Secretariat. The Secretariat shall remove from the ICCAT Record of Vessels any vessel for which the periods of authorization have expired.
36. The Executive Secretary shall, without delay, post the record of authorized vessels on the ICCAT website, including any additions, deletions and/or modifications so notified by CPCs.
37. Conditions and procedures referred to in the *Recommendation by ICCAT Concerning the Establishment of an ICCAT Record of Vessels 20 meters in Length Overall or Greater Authorized to Operate in the Convention Area* (Rec. 13-13) shall apply *mutatis mutandis* to the ICCAT record of authorized tropical tuna vessels.

***Vessels actively fishing tropical tunas in a given year***

38. Each CPC shall, by 31 July each year, notify to the Executive Secretary the list of authorized vessels flying their flag which have fished bigeye and/or yellowfin and/or skipjack tunas in the Convention area or have offered any kind of support to the fishing activity (support vessels) in the previous calendar year. For purse seines this list shall also include the support vessels that have supported the fishing activity, irrespective of their flag.

The Executive Secretary shall report each year these lists of vessels to the Compliance Committee and to the SCRS.

39. The provisions of paragraphs 31 to 37 do not apply to recreational vessels.

***[Transshipments at sea]***

- 39 bis. Starting in 2020, CPCs whose Large Scale Pelagic Longline Vessels (LSPLVs) transship tuna and tuna-like species in the Convention area shall ensure that a minimum of [20]% of these transshipments take place in ports.]

***[Recording of catch and fishing activities]***

- 39 ter. Each CPC shall ensure that its vessels 20 meters LOA or greater fishing bigeye and/or yellowfin and/or skipjack tunas in the Convention area record their catch in accordance with the requirements set out in **Annex 6** and in the *Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area* [Rec. 03-13].]

As noted above, a convergence of views is emerging on the need for robust reporting, verification and compliance mechanisms for the implementation of the TAC and catch limits. Relevant provisions throughout the measure need to be reviewed (with reference also to other relevant Commission Recommendations and Resolutions) with a view to ensuring that they are sufficiently robust to provide confidence in the implementation of the TAC, catch limits, FAD closure and other operational provisions. In particular CPCs noted the importance of mechanisms including observers, VMS, and data reporting, submission and verification.

#### ***Identification IUU activity***

40. The Executive Secretary shall, without delay, verify that any vessel identified or reported in the context of this Multi-annual Programme is on the ICCAT record of authorized vessels. If a possible violation is detected, the Executive Secretary shall, without delay, notify the flag CPC. The flag CPC shall immediately investigate the situation and, if the vessel is fishing in relation to objects that could affect fish aggregation, including FADs, request the vessel to stop fishing and, if necessary, leave the area without delay. The flag CPC shall, without delay, report to the Executive Secretary the results of its investigation and the corresponding measures taken.
41. The Executive Secretary shall report to the Compliance Committee at each annual meeting of the Commission on any issue related to identification of unauthorized vessels, the implementation of the VMS, the observer provisions, and the results of the relevant investigation made as well as any relevant measures taken by the flag CPCs concerned.
42. The Executive Secretary shall propose to include any vessels identified in accordance with paragraph 35, or vessels for which the flag CPC has not carried out the required investigation and taken, if necessary, adequate measures in accordance with paragraph 34, on the provisional IUU list.

#### ***Observers***

43. For observers on board vessels targeting bigeye, yellowfin and/or skipjack tunas in the area east of meridian 20°/West longitude and north of parallel 28°/ South latitude the following shall apply:
  - a) Observers shall automatically be recognized by all CPCs. Such recognition shall allow the scientific observer to continue the collection of information throughout the EEZ visited by the vessel observed. The coastal CPCs concerned shall receive from the flag CPC which mandated the observer the information collected by the observer and related to fishing activities on ICCAT species in their EEZ.
44. For longline vessels flying their flag 20 meters length overall (LOA) or greater targeting bigeye, yellowfin and/or skipjack in the Convention area, CPCs shall ensure a minimum of 10% observer coverage of fishing effort by 2021, through the presence [of an approved<sup>8</sup> Electronic Monitoring system and/or human observer on board in accordance with ~~{Annex 7}~~ / [of a human observer on board in accordance with **Annex 7** or an approved Electronic Monitoring system]. [For this purpose, the Working Group on Integrated Monitoring Measures (IMM WG), in cooperation with the SCRS, shall make a recommendation to the Commission for endorsement at its 2021 Annual meeting on the following:
  - a) Minimum standards for an electronic monitoring system such as:
    - (i) the minimum specifications of the recording equipment (e.g. resolution, recording time capacity), data storage type, data protection
    - (ii) the number of cameras to be installed at which points on board
  - b) What shall be recorded

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<sup>8</sup> [CPCs should consider any applicable guidelines that are endorsed by SCRS on the use of electronic monitoring systems]

- c) Data analysis standards, e.g., converting video footage into actionable data by the use of artificial intelligence
- d) Data to be analyzed, e.g., species, length, estimated weight, fishing operation details
- e) Reporting format to the Secretariat

In 2020 CPCs are encouraged to conduct trials on electronic monitoring and report the results back to the IMM and the SCRS in 2021 for their review.]

CPCs shall report the information collected by the observers from the previous year by 30 April to the ICCAT Secretariat and to SCRS taking into account CPC confidentiality requirements.

44 bis. [CPCs shall submit all relevant data and administer scientific observer programs for tropical tunas in accordance with *Recommendation by ICCAT to Establish Minimum Standards for Fishing Vessel Scientific Observers* [Rec. 16-14]. In 2023, the SCRS shall provide advice on the [improvements to observer programs including best metrics for observer coverage to be measured by as well as] how coverage should be stratified across vessels, seasons and areas to achieve maximum effectiveness.

44 ter. CPCs shall endeavour to further increase observer coverage rates for longline vessels, including through trials and implementation of electronic monitoring to supplement human observers. CPCs that trial electronic monitoring shall share technical specifications and standards with the Commission towards the development of agreed ICCAT standards.

~~44 quater. [Placeholder — USA may request at least the current 5% human observer coverage must remain]~~

45. For purse seine vessels flying their flag and targeting bigeye, yellowfin and/or skipjack in the Convention area, CPCs shall ensure 100% observer coverage of fishing effort, through the presence of an observer on board in accordance with **Annex 7** or through an approved electronic monitoring system. CPCs shall report the information collected by the observers from the previous year by 30 April to the ICCAT Secretariat and to SCRS.

46. [Starting in 2020 CPCs shall ensure that all [supply support] vessels have [100%] observer coverage.]

47. Each year, the ICCAT Secretariat shall compile the information collected under domestic CPC observer programs, including on the observer coverage for each tropical tuna fishery, and make it available to the Commission before the Annual Meeting for further deliberation, taking into account CPC confidentiality requirements.

[47 bis. In 2020, IMM shall explore the possible scope and benefits of ICCAT adopting a regional Observer Program for tropical tuna fisheries. Taking into account the need for harmonization and coordination of national observer programs for tropical tuna fisheries.]

### ***Port Sampling Programme***

48. The port sampling programme developed by the SCRS in 2012 shall be continued for landing or transshipment ports. Data and information collected from this sampling programme shall be reported to ICCAT each year, describing, at a minimum, the following by country of landing and quarter: species composition, landings by species, length composition, and weights. Biological samples suitable for determining life history should be collected as practicable.



**PART VI**  
**MANAGEMENT PROCEDURES/MANAGEMENT STRATEGY EVALUATION**

***Management Strategy Evaluation and Candidate Harvest Control Rules***

49. The SCRS shall refine the MSE process in line with the SCRS roadmap and continue testing the candidate management procedures. On this basis, the Commission shall review the candidate management procedures, including pre-agreed management actions to be taken under various stock conditions. These shall take into account the differential impacts of fishing operations (e.g. purse seine, longline and bait boat) on juvenile mortality and the yield at MSY.

**PART VII**  
**FINAL PROVISIONS**

***Availability of data to SCRS and to national scientists***

50. CPCs shall ensure that:
- a) Both paper and electronic fishing logbooks referred to in paragraph 35 and the FAD-logbooks referred to in paragraph 22, where applicable, are promptly collected and made available to national scientists;
  - b) The Task II data include the information collected from the fishing or FAD logbooks, where applicable, and is submitted every year to the ICCAT Executive Secretary, to be made available to the SCRS.
51. CPCs should encourage their national scientists to undertake collaborative work with their national industry to analyse data related to FADs (e.g. logbooks, buoy data) and to present the outcomes of that analysis to the SCRS. CPCs should take steps to facilitate making the data available for such collaborative work, subject to relevant confidentiality constraints.
52. With the objective of providing information useful to estimate the fishing effort related to FAD-fishing each CPC should provide to its national scientists full access to:
- a) VMS data of their fishing and support vessels and trajectories of FADs;
  - b) Data recorded by echo-sounders;
  - c) FAD logbooks and the information collected pursuant to paragraph 22;

***Confidentiality***

53. All data submitted in accordance with this Recommendation shall be treated in a manner consistent with ICCAT's data confidentiality guidelines and solely for the purposes of this Recommendation and in accordance with the requirements and procedures developed by the Commission.

***Final Provisions***

**[53 bis Actions required from the SCRS and the Secretariat:**

- a) The SCRS shall explore the efficacy that full fishery closures along the lines of those proposed in PA1\_505/2019 might have to reduce the catches of tropical tunas to the agreed levels; and the potential of such scheme to reduce the catches of juvenile bigeye and yellowfin tunas, in line with recommendations from the SCRS;
- b) The ICCAT Secretariat shall work with the SCRS in preparing an estimate of capacity in the IATTC Area, to include at least all the fishing units that are large-scale or operate outside the EEZ of the CPC they are registered in. All CPCs shall cooperate with this work, providing estimates of the number of fishing units fishing for tuna and tuna like species under their flag, and the species or species groups each fishing unit targets (e.g. tropical tunas, temperate tunas, swordfish, other billfish, small tunas, sharks, etc.); this work shall be presented to the next meeting of the SCRS in 2020 and forwarded to the Commission for consideration;

- c) The ICCAT Secretariat shall identify a Consultant to carry out an evaluation monitoring, control and surveillance mechanisms in place in ICCAT CPCs. This work shall primarily focus on the evaluation of data collection and processing systems in each CPC, and the ability to produce estimates of catch and effort, and length frequency for all stocks under ICCAT management, with a focus on stocks for which input and/or output measures are in place; in preparing this work the Consultant shall evaluate how efficient the catch monitoring systems that each CPC has implemented are to achieve robust estimates of catches for the stocks subject to a TAC; the IOTC Secretariat shall work with SCRS scientists to prepare a TOR for this work as soon as possible.]

There is a convergence of views emerging that some further SCRS advice would be beneficial. Matters for further investigation or advice that have been suggested by some CPCs include alternative effort management approaches, seasonal or location trends of juvenile bigeye distribution, mechanisms to improve data and compliance.

***Repeals and review***

54. This Recommendation replaces Rec. 16-01 and 18-01 and [shall be revised as appropriate / expires on 31 December 2021 / shall be reviewed in 2022 / shall be reviewed by the Commission in [2021]].

As noted above, further discussion is needed on the term of the measure, and requirements for review.

### Guidelines for Preparation of FAD Management Plans

The FAD Management Plan for a CPC purse seine and bait boat fleets must include the following:

1. Description
  - a) FAD types: AFAD = anchored; DFAD = drifting
  - b) Type of beacon/buoy
  - c) Maximum number of FAD to be deployed per purse seine and per FAD type and active at any one time per vessel
  - d) Minimum distance between AFADs
  - e) Incidental by-catch reduction and utilization policy
  - f) Consideration of interaction with other gear types
  - g) Statement or policy on "FAD ownership"
  - h) Use of support vessels, including from other flag CPCs
2. Institutional arrangements
  - a) Institutional responsibilities for the FAD Management plan
  - b) Application processes for FAD deployment approval
  - c) Obligations of vessel owners and masters in respect of FAD deployment and use
  - d) FAD replacement policy
  - e) Additional reporting obligations beyond this Recommendation
  - 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.
3. FAD construction specifications and requirements
  - a) FAD design characteristics (a description)
  - b) Lighting requirements
  - c) Radar reflectors
  - d) Visible distance
  - e) FAD markings and identifier
  - f) Radio buoys markings and identifier (requirement for serial numbers)
  - g) Echo-sounder buoys markings and identifier (requirement for serial numbers)
  - h) Satellite transceivers
  - i) Research undertaken on biodegradable FADs
  - j) Prevention of loss or abandonment of FADs
  - k) Management of FADs recovery.
4. Applicable period for the FAD Management Plan
5. Means for monitoring and reviewing the implementation of the FAD Management Plan

Annex 2

**FAD logbook [FAD FOB-related information to be collected in the FOB logbook]**

For each activity on an instrumented FOB or a buoy as described in **Table 2** of **Annex 3**, following information is collected:

- Activity type as described in **Table 2** of **Annex 3**,
- FOB type as described in **Table 1** of **Annex 3**,
- FOB identification: FAD marking if any, buoy ID if any, any information on the FOB or its buoy permitting to identify the FOB or its owner,
- Date and time of the activity concerned,
- Position of the vessel when the activity occurs,
- In case of fishing, every information required in the ICCAT logbook.]

<i>FAD marking</i>	<i>Buoys ID</i>	<i>FAD type</i>	<i>Type of visit</i>	<i>Date</i>	<i>Time</i>	<i>Position</i>		<i>Estimated catches</i>			<i>By-catch</i>				<i>Observations</i>
						<i>Latitude</i>	<i>Longitude</i>	<i>SKJ</i>	<i>YFT</i>	<i>BET</i>	<i>Taxonomic group</i>	<i>Estimated catches</i>	<i>Unit</i>	<i>Specimen released alive</i>	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)	(8)	(8)	(8)	(9)	(10)	(11)	(12)	(13)
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

- (1,2) If FAD marking and associated beacon/buoy ID are absent or unreadable, report it in this section. However, if FAD marking and associated beacon/buoy ID are absent or unreadable, the FAD shall not be deployed.
- (3) Anchored FAD, drifting natural FAD or drifting artificial FAD.
- (4) I.e., deployment, hauling, strengthening/consolidation, removing/retrieving, changing the beacon, loss and mention if the visit has been followed by a set.
- (5) dd/mm/yy
- (6) hh:mm
- (7) N/S/mm/dd or °E/W/mm/dd.
- (8) Estimated catches expressed in metric tons.
- (9) Use a line per taxonomic group.
- (10) Estimated catches expressed in weight or in number.
- (11) Unit used.
- (12) Expressed as number of specimen.
- (13) If no FAD marking neither associated beacon ID is available, report in this section all available information which may help to describe the FAD and to identify the owner of the FAD.

Annex 3

**Table 1.** Codes, names and examples of different types of floating object that should be collected in the fishing logbook as a minimum data requirement. Table from 2016 SCRS report (section 18.2 Table 7).

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

**Table 2.** Names and description of the activities related to floating objects and buoys that should be collected in the fishing logbook as a minimum data requirement (codes are not listed here). Table from 2016 SCRS report (section 18.2 Table 8).

	<i>Name</i>	<i>Description</i>
FOB	Encounter	Random encounter (without fishing) of a log or a FAD belonging to another vessel (unknown position)
	Visit	Visit (without fishing) of a FOB (known position)
	Deployment	FAD deployed at sea
	Strengthening	Consolidation of a FOB
	Remove FAD	FAD retrieval
	Fishing	Fishing set on a FOB <sup>1</sup>
Buoy	Tagging	Deployment of a buoy on FOB <sup>2</sup>
	Remove BUOY	Retrieval of the buoy equipping the FOB
	Loss	Loss of the buoy/End of transmission of the buoy

<sup>1</sup> A fishing set on a Fishing Object (FOB) includes two aspects: fishing after a visit to a vessel's own FOB (targeted) or fishing after a random encounter of a FOB (opportunistic).

<sup>2</sup> Deploying a buoy on a FOB includes three aspects: deploying a buoy on a foreign FOB, transferring a buoy (which changes the FOB owner) and changing the buoy on the same FOB (which does not change the FOB owner).

Annex 4

List of deployed FADs and buoys on a monthly basis

Month:

FAD Identifier		FAD & electronic equipment types		FAD				Observation
FAD Marking	Associated buoy ID	FAD Type	Type of the associated buoy and /or electronic devices	FAD floating part	FAD underwater hanging structure			
(1)	(1)	(2)	(3)	(4)	(5)			(6)
...	...	...	...		...			...
...	...	...	...		...			...

(1) If FAD marking and associated beacon/buoy ID are absent or unreadable, the FAD shall not be deployed.

(2) Anchored FAD, drifting natural FAD or drifting artificial FAD.

(3) E.g. GPS, sounder, etc. If no electronic device is associated to the FAD, note this absence of equipment.

(4) Mention the material of the structure and of the cover and if biodegradable.

(5) E.g. nets, ropes, palms, etc., and mention the entangling and/or biodegradable features of the material.

(6) Lighting specifications, radar reflectors and visible distances shall be reported in this section.

**Guidelines for reducing the ecological impact of FADs in ICCAT fisheries**

1. The surface structure of the FAD should not be covered or only covered with material implying minimum risk of entangling by-catch species.
2. The sub-surface components should be exclusively composed of non-entangling material (e.g. ropes or canvas).
3. When designing FADs the use of biodegradable materials should be prioritised.

### Requirements for Catch Recording

#### Minimum specification for paper or electronic logbooks:

1. The logbook must be numbered by sheets
2. The logbook must be filled in every day (midnight) ~~or~~ and before port arrival
3. One copy of the sheets must remain attached to the logbook
4. Logbooks must be kept on board to cover a period of one-trip operation

#### Minimum standard information for logbooks:

1. Master name and address
2. Dates and ports of departure, Dates and ports of arrival
3. Vessel name, registry number, ICCAT number and IMO number (if available)
4. Fishing gear:
  - (a) Type FAO code
  - (b) Dimension (length, mesh size, number of hooks...)
5. Operations at sea with one line (minimum) per day of trip, providing:
  - (a) Activity (fishing, steaming...)
  - (b) Position: Exact daily positions (in degree and minutes), recorded for each fishing operation or at noon when no fishing has been conducted during this day
  - (c) Record of catches
6. Species identification:
  - (a) By FAO code
  - (b) Round (RWT) weight in t per set
  - (c) Fishing mode (FAD, free school, etc.)
7. Master signature
8. Observer signature, if applicable
9. Means of weight measure: estimation, weighing on board and counting
10. The logbook is kept in equivalent live weight of fish and mentions the conversion factors used in the evaluation.

#### Minimum information in case of landing, transshipments:

1. Dates and port of landing /transshipments
2. Products: number of fish and quantity in kg
3. Signature of the Master or Vessel Agent



**Observer Programme**

1. The observers referred to in paragraph ~~374~~3-47 of this Recommendation shall have the following qualifications to accomplish their tasks:
  - Sufficient experience to identify species and fishing gear;
  - Satisfactory knowledge of the ICCAT conservation and management measures assessed by a certificate provided by the CPCs and based on ICCAT training guidelines;
  - The ability to observe and record accurately;
  - The ability to collect biological samples;
  - A satisfactory knowledge of the language of the flag of the vessel observed.
2. The observers shall not be a crew member of the fishing vessel being observer and shall:
  - (a) Be nationals of one of the CPCs;
  - (b) Be capable of performing the duties set forth in point 3 below;
  - (c) Not have current financial or beneficial interests in the tropical tuna fisheries.
3. The observer tasks shall be in particular:
  - (a) To monitor the fishing vessels' compliance with the relevant conservation and management measures adopted by the Commission.

In particular the observers shall:

- i. Record and report upon the fishing activities carried out;
  - ii. Observe and estimate catches and verify entries made in the logbook;
  - iii. Sight and record vessels which may be fishing in contravention to ICCAT conservation and management measures;
  - iv. Verify the position of the vessel when engaged in catching activity;
  - v. Verify the number of instrumental buoys active at any one time;
  - vi. Carry out scientific work such as collecting Task II data when required by the Commission, based on the directives from the SCRS, observing and recording data on FAD properties in accordance with **Table 1** below.
- (b) Establish general reports compiling the information collected in accordance with this paragraph and provide the master the opportunity to include therein any relevant information.

**Obligations of the observer**

4. Observers shall treat as confidential all information with respect to the fishing and transshipment operations of the fishing vessels and accept this requirement in writing as a condition of appointment as an observer.
5. Observers shall comply with requirements established in the laws and regulations of the flag State which exercises jurisdiction over the vessel to which the observer is assigned.
6. Observers shall respect the hierarchy and general rules of behaviour which apply to all vessel personnel, provided such rules do not interfere with the duties of the observer under this programme, and with the obligations of vessel personnel set forth in point 7 of this Annex.

**Obligations of the flag States of fishing vessels**

7. The responsibilities regarding observers of the flag States of the fishing vessels and their masters shall include the following, notably:
  - a) Observers shall be allowed to access to the vessel personnel and to the gear and equipment;
  - b) Upon request, observers shall also be allowed access to the following equipment, if present on the vessels to which they are assigned, in order to facilitate the carrying out of their duties set forth in point 3 of this Annex:
    - i) satellite navigation equipment;
    - ii) radar display viewing screens when in use;
    - iii) electronic means of communication, including FAD/buoys signals.
  - c) Observers shall be provided accommodations, including lodging, food and adequate sanitary facilities, equal to those of officers;
  - d) Observers shall be provided with adequate space on the bridge or pilot house for clerical work, as well as space on deck adequate for carrying out observer duties; and
  - e) The flag States shall ensure that masters, crew and vessel owners do not obstruct, intimidate, interfere with, influence, bribe or attempt to bribe an observer in the performance of his/her duties.

**Table 1.** FOB/FAD information added to observer onboard form to comply with RFMOs recommendations. Table from 2016 SCRS report (section 18.2 Table 9).

<i>Properties</i>	<i>DFAD</i>	<i>AFAD</i>	<i>HALOG</i>	<i>FALOG</i>	<i>ANLOG</i>	<i>VNLOG</i>
FOB built using biodegradable materials (true/false/undefined)	X	X	X	X		
FOB is non-entangling (true/false/undefined)	X	X	X	X		
Meshed material (true/false/undefined) in FOB	X	X		X		
Size of largest mesh (in millimeters)	X	X		X		
Distance between the surface and the deepest part of the FOB (in meters)	X	X	X	X		
Approximate surface area of the FOB	X	X	X	X		
Specifies the FOB's ID whenever present	X	X	X	X		
Fleet owning the tracking device/ echo sounder buoy	X	X	X	X	X	X
Vessel owning the tracking device/ echo sounder buoy	X	X	X	X	X	X
Anchorage type used for mooring (AFAD registry)		X				
Radar reflectors (presence or not) (AFAD registry)		X				
Lighting (presence or not) (AFAD registry)		X				
Visual range (in nautical miles) (AFAD registry)		X				
Materials used for the floating part of the FOB (list to be defined)	X	X	X	X		
Materials making up the FOB underwater structure (list to be defined)	X	X	X	X		
Tracking device TYPE+ID if possible, otherwise no or undefined.	X	X	X	X	X	X