REPORT OF THE INTERSESSIONAL MEETING OF PANEL 1
(Azores, São Miguel, Portugal, 28-30 June 2022)

1. Opening of the meeting

The meeting was opened by Mr. Paul Bannerman, Chair of Panel 1.

2. Appointment of rapporteur and meeting arrangements

Senegal proposed Mr. Mamadou Seye as rapporteur for the meeting.

As regards meeting arrangements, Mr. Camille Jean Pierre Manel, the ICCAT Executive Secretary reminded that the meeting was being held in a hybrid format with participants present in the room and participants attending online via the Zoom platform. This is a first experience which will inevitably have an impact on the meeting.

He introduced the participants, 36 CPCs of which 28 were physically present: Algeria (online), Angola, Belize, Brazil, Cabo Verde, Canada, China (Rep.) (online), Côte d'Ivoire, Curaçao, El Salvador, the European Union, Gabon, Ghana, Guatemala (online), Guinea-Bissau, Guinea (Rep.), Honduras, Japan, Korea (Rep.), Liberia, Mauritania, Mexico (online), Morocco, Nicaragua, Nigeria, the Philippines (online), Panama, Sao Tomé, Senegal, Sierra Leone (online), South Africa (online), Trinidad and Tobago, United Kingdom of Great Britain and Northern Ireland, United States, Uruguay (online), and Venezuela (online); 3 Cooperating Non-contracting parties, entities, fishing entities: Bolivia, Chinese Taipei, and Costa Rica (all online).

One intergovernmental organisation was in attendance, Conférence ministérielle sur la coopération halieutique entre les États africains riverains de l'océan Atlantique / The Ministerial Conference on fisheries cooperation among African States bordering the Atlantic Ocean (COMHAFAT/ATLAFCO) and the following Non-governmental Organisations: Associação de Ciências Marinhas e Cooperação (SCIAENA), Brazilian Association of Fish Industries (ABIPESCA), EUROPÊCHE, International Seafood Sustainability Foundation (ISSF), Organization for the Promotion of Responsible Tuna Fisheries (OPRT), Pew Charitable Trusts (PEW), The International Pole & Line Foundation (IPLNF), and Worldwide Fund for Nature (WWF).

The Secretariat recalled the principles of use of the Zoom platform.

Japan asked the Chair how, with this hybrid format, he would hand the floor over to online participants and those in the room, respecting the order of requests and equity among CPCs. Taking into account the suggestions of the Secretariat and several CPCs, the Chair indicated that the floor will be given alternately to delegations in physical attendance and those online via the Zoom platform, following the order of requests for the floor and that this procedure will also apply for observers.

3. Adoption of the agenda

The Panel considered a proposed revised agenda to guide discussions of the meeting.

The European Union (EU) asked the Chair how he intended to conduct the process to develop a proposal for the conservation and management of tropical tunas leading up to the ICCAT Annual Meeting and what points will be addressed by the end of the Panel 1 intersessional meeting.

The Chair suggested that a small group be formed to advance the elements of a conservation and management measure based on the discussions of the Panel. The Chair indicated that the small group could commence its work after the June Panel 1 meeting to help the Chair develop a draft proposal for consideration at the ICCAT Annual Meeting in November.

Senegal reminded that the main reason for holding this intersessional meeting is to advance on the issue of allocation of fishing possibilities. Accordingly, this issue should be addressed as a priority; hence, Senegal noted the need to amend the agenda to prioritise items 6 and 7.

Canada indicated that the Chair has an important task after two years without in-person meetings. Therefore, to organize the work from now to the Commission meeting in November, and in relation to the Chair's suggestion to establish a small group, it will be important to agree during this meeting on the work arrangements, composition, and expected results of this small group.

El Salvador considered that this idea of a small group envisaged by the Chair may be an interesting alternative and should be considered by the Panel later in the meeting. As to prioritization of allocation raised by Senegal, this CPC responded that some measures for tropicals expire in 2022, citing the example of the TAC for bigeye tuna, and that this requires new decisions by Panel 1 beyond the question of allocation so the Panel needs to have a broader discussion.

As to the arrangements for future meetings on pending issues, Gabon indicated that the intention to establish a small group should be discussed under agenda item 12, and expressed its reservations and apprehension of objections at the annual meeting if all CPCs do not participate in this group. Given that, Gabon suggested that consideration be given to holding a second Panel 1 intersessional meeting before the 2022 ICCAT Annual Meeting, if possible. On the issue of prioritization of the allocation key, Gabon indicated its support and signaled that this issue must be addressed by this meeting, and to this end, it suggested that the item on "Review of fishing management, capacity and FAD plans submitted by the CPCs, including any request for clarification", be considered further down on the agenda.

The United Kingdom and others signaled that several issues need to be addressed by the Panel so that progress is made on conservation and management measures as a whole, including the TAC and allocation for bigeye and yellowfin tuna, and FAD and capacity management.

The Chair concluded that the idea of a small group would be discussed later in the meeting under Agenda item 12, "Other Matters." He also indicated that the revised agenda would be followed as proposed but that he would ensure sufficient time was provided to discuss the TAC, allocation, and other conservation and management measures. The revised Agenda was adopted and is attached as **Appendix 1**.

The list of participants is contained in **Appendix 2**.

4. Review of fishery management, capacity and FAD plans submitted by CPCs, including any request for clarification

The Chair noted that, according to the information from the Secretariat, this item could be wrapped up quickly as most CPCs have submitted Capacity management plans and FAD management plans which have already been published on OwnCloud. He reminded the Panel that as per paragraph 69 of Rec. 21-01, "All CPCs commit to implement [that] Recommendation on a voluntary basis as of 1 January 2022." This paragraph is binding and should not be interpreted as optional.

The United States requested a clarification from Senegal on the bigeye tuna catch limit of 3,500 t for the 2022 fishing season as reflected in its tropical tunas capacity management plan, noting that this limit was not consistent with that specified for Senegal in Rec. 21-01.

The EU also asked Senegal to cite Rec. 21-01 and not Rec. 20-02 in their management plan as Rec. 21-01 is the applicable ICCAT measure for the 2022 fishery. The EU also noted that adjustment by Senegal of its catch limit would also require adjustment of its capacity table in Section 2 of its management plan. The EU also questioned Brazil which is in category b) and must reduce its catches by 17% while it envisages increasing its capacity from 200 vessels to 250 vessels. In addition, the EU asked Brazil to clarify how it will proceed given that the ceiling for the fleet is 257 vessels from 2022. The EU asked Panama to explain the reason why it has not submitted the capacity management plan.

In response to these questions and comments of these CPCs, Senegal signaled that corrections will be made subsequently to its plan and a revised document will be transmitted to the Secretariat. Brazil responded that it has not increased its handline fleet and confirmed that it did not intend to increase its capacity as licenses have been frozen at 250 for the fleet as of 2022. Panama stated its intention to respond later to the questions asked by the EU. It also noted some concerns about the establishment of a small group but, if formed, expressed its wish to be part of the small group.

5. General overview of Rec. 21-01

The Chair reminded that all CPCs should have implemented, per the terms of paragraph 69, Rec. 21-01 on a voluntary basis from January 2022. El Salvador considered that Rec. 21-01 has timeframes for entry into force specified under Article VIII of the Convention and paragraph 69 provides an additional mechanism to ensure the measure will be effective. In this regard, the EU signaled that the language "on a voluntary basis" has been used previously by ICCAT, and it does not convey a weakness but rather a will to accelerate implementation of Recommendation 21-01 by the CPCs.

The Chair noted the points of view of the EU and El Salvador on voluntary implementation of the Recommendation and recalled that a few CPCs had submitted statements on paragraph 69. He summarized that, prior to the official entry into force of a recommendation under the Convention, which occurs six months after official transmissions to CPCs, the implementation of a recommendation is voluntary.

The Chair recalled the main provisions of Rec. 21-01 which concerned, among others, the capacity management plans, support vessels, time-area closure, FAD limits, reporting requirements for historical data on FAD sets, observer programmes and sampling (the methods of which must be harmonized among CPCs), and incentives for the use of biodegradable FADs. He returned to the main challenge of tropical tunas; namely, the purse seine fishery and its impacts on juveniles, noting that more measures are likely needed to reduce the catch of juvenile bigeye and yellowfin tuna. He also noted that additional control measures may be needed, stressing the need to revisit the observer requirements.

Some CPCs (EU, Japan) recognised that Rec. 21-01 is not perfect since the bigeye tuna TAC, allocation of fishing possibilities for developing CPCs, and capacity management are not fully resolved and therefore some aspects of the Recommendation must be improved. Japan signaled that some CPCs have not yet submitted the FAD set data despite the longstanding requirement to do so. Japan stated that the Secretariat must take stock of the situation on 31 July 2022, which is the submission deadline, and implement all the consequences for the CPCs that have not complied with this requirement, as mandated by paragraph 31 of Rec. 21-01. The United States strongly agreed with Japan and requested that these data be made available by the deadline. The United States also recalled that paragraph 28 called on the SCRS to provide advice to the Commission in 2022 on the current time and area closure to FAD fishing. Côte d'Ivoire indicated that another imperfection of this Recommendation is that, if all the fishing possibilities of Rec. 21- 01 were fully utilized, the TAC would be exceeded.

El Salvador requested that the Panel take the necessary time to discuss all the important issues of Rec. 21-01, and highlighted the importance of regulating all fisheries. El Salvador stressed that this is what the Central American proposal has done since figures are needed for the bigeye tuna TAC and measures must be established for the fisheries other than the purse seine fishery where efforts for regulation have already been made.

Canada indicated that it anticipated an in-depth review and revision of the current provisions of Rec. 21-01 in order to have a comprehensive measure for discussion at the Commission meeting in November 2022 and would like to see a simplification of the current drafting of the measure which refers to content set out in Rec. 16-01, Rec. 19-01, and Rec. 20-01, and would like to bring the text from the old measures into the new Recommendation so it contains all the rules that are in force. A number of CPCs noted support for the comments made by Canada. Senegal noted that the need to simplify this Recommendation was raised in 2021 during the discussions of the Panel.

6. Summary of the status of bigeye and yellowfin tunas and related SCRS advice

The SCRS Chair, Dr. Gary Melvin, presented an update on the situation of the latest assessments of yellowfin tuna and bigeye tuna. He also addressed skipjack tuna, a new assessment which is being conducted by the SCRS in 2022 and the information presented is preliminary. For yellowfin tuna, the last assessment dates from 2019. At that time, the stock was not subject to overfishing and was not overfished. For bigeye tuna, the last assessment was carried out in 2020. It showed that the stock was overfished but not subject to overfishing. For skipjack, the last assessment prior to 2022 was conducted in 2014.

The executive summary of the 2019 yellowfin tuna assessment highlighted: revision of the age to 18 years, the TAC for yellowfin tuna was set at 110,000 t for 2020, a TAC of 110,000 t was adopted in 2012 and that the stock was not overfished or subject to overfishing given the values of relative biomass (B/B_{MSY} = 1.17) and fishing mortality (F/F_{MSY}=0.96). However, Dr Melvin added that, while the 2019 assessment was more optimistic than in 2012, it must be interpreted with caution given uncertainties. The Chair cautioned that the stock biomass

may be at risk of deteriorating considering catches of yellowfin tuna have routinely exceeded the TAC. Given the overages of the TAC, he also stated that current management measures are likely insufficient, and the SCRS recommends that the Commission strengthen these management measures. He highlighted the potential negative impact of exploitation of juvenile tropical tunas on the status of yellowfin tuna.

For bigeye tuna, 2021 assessment introduced significant changes in the input parameters, which impacted the outcomes and the modeling approaches (MPB, JABBA, Bayesian, SSA). Nominal catches exceeded the TAC in 2016 and 2019 but catches by purse seiners decreased in 2020 and the traditional fishing areas remained the same. The joint longliner and buoy indices were used in the assessment. Only the SSA model was used for the management advice and the general summary indicates an MSY of 86,833 t (72,210 – 106,440 t), and probabilities tables with higher percentages than those usually obtained. The indicators show a relative increase in biomass and a decrease in relative fishing mortality. While the 2021 assessment indicated an improvement in the stock over the 2016 assessment, the SCRS Chair cautioned that there are many important uncertainties in the 2021 assessment; its results must, therefore, be interpreted with caution. In particular, the probabilities presented in the Kobe 2 Strategy Matrix should not be taken literally; they are lower than indicated but it is unclear how much lower. Given that, the recommendation to the Commission is to adopt a TAC that would continue to shift the stock status of BET towards the green zone of the Kobe plot with a high probability. He warned against an increase in catches of juvenile bigeye tuna which could continue to negatively affect the stock status.

For skipjack, the SCRS recommended to maintain the 2012-2016 level of effort and warned about unconsidered catches of juvenile yellowfin and skipjack tuna which will impact catches of other species. However, Dr Melvin also noted that the input data used for the 2022 skipjack assessment finish at 2020.

CPCs made varying comments following the presentation of Dr Melvin on bigeye tuna, in particular on the 2020 catches, the 2022 projections, the high TAC values in the Kobe 2 Strategy Matrix and the input parameters for the bigeye tuna assessment, namely the use of a new maximum age for bigeye tuna different from the maximum age used in previous assessments, and the effect on the projections as well as on the catches of juveniles. A question was asked about whether the assessment results were overly optimistic or if the stock status is simply better than in the past.

As regards the revised ages of bigeye tuna, the SCRS Chair indicated that a maximum age of 25 years and an average age of 18 years were used in the assessment, and that what was sought by the SCRS is a maximum age (i.e. the age at which all fish are dead) and a range of 18-25 years was evaluated after much discussion within the SCRS. He clearly stated that if the maximum age increases, the ratio of the biomass and the biomass at MSY increases as the relative mortality decreases, but ultimately it does not change the results much.

Regarding the questions from CPCs on higher probabilities to be adopted for the bigeye tuna TAC, the SCRS Chair highlighted that it is difficult to estimate uncertainty inherent to every probability. He reinforced that juvenile mortality should not increase and managing such morality is the Commission's responsibility.

Some CPCs (Gabon, EU, El Salvador) expressed their points of view on the cautious interpretation recommended by the SCRS Chair and on the meaning of this term.

Dr Melvin noted that the results of the most recent assessment are more optimistic than the previous evaluation, but pointed out that this is most likely due to new data, data treatments and assumptions rather than stock rebuilding.

Furthermore, for the SCRS Chair, exploitation of small tunas remains linked to FAD use, the reduction of which will mitigate growth overfishing. He added that a positive stock status will depend in the future on the level of control of juvenile mortality, which means that the level of juvenile catches should not increase even if there is an increase in the TAC. However, he recognised that the catch level of juvenile bigeye tuna is difficult to estimate at this stage because the data on FAD sets are incomplete given the CPC submission date is 31 July 2022 for the 2021 data. The SCRS recommendation on this matter is to not increase the catches of juveniles.

As regards the revised joint longline index, Canada asked a question about what the influence would have been on the bigeye tuna assessment and whether it was possible for the Commission to request that the involved CPCs meet and resume work on this index to reduce uncertainties in the assessment. Dr Melvin reminded Panel 1 that the calculation of the joint longline index had not been carried out for 2022 and resuming this calculation is complex, but the SCRS could do so should the Commission so request. He concluded by stating that the SCRS has provided the best available advice at this stage, but the projections on the future stock status are uncertain due to uncertainties in the assessment.

Regarding bigeye tuna, the UK and others pointed out that a TAC of 75,000 t, drops to a 64% probability of keeping the stock in the green by the end of the projection period (2034) and that, given the important uncertainties in the assessment, the actual probability by that time could be below 60%. They asked the SCRS Chair for his views on this matter. South Africa and others stressed the caution recommended by the SCRS as regards the increase in TAC due to these uncertainties. South Africa also underscored that the current assessment indicates that the stock is on the verge of being subject to overfishing.

As to yellowfin tuna, the United States indicated that the SCRS advice is that the stock is not overfished, nor subject to overfishing but the assessment was carried out with data through 2018 and recent catches have increased to the point that they far exceed the TAC. Regarding bigeye tuna, the United States noted its concern regarding methodological and data changes to the joint longline index due to difficulties caused by the pandemic. With only two additional years of data, the trend changed and this has affected the assessment and the perception of stock status, in particular making the assessment more optimistic. The longline index can and should be updated for the next assessment, and that assessment should be undertaken as soon as possible.

Japan asked Dr Melvin that even if it was difficult for the SCRS to provide advice on the level of risk associated with the uncertainties, would it be possible to confirm whether a TAC of 70,000 t would produce the same trends of improving the stock status of bigeye tuna even when such uncertainties are considered.

Regarding the questions raised about the level of the bigeye tuna TAC, Dr Melvin noted that the current TAC of 62,500 t produces a positive trend in the projections. Once the TAC goes above that, the implications are hard to predict but SCRS has a responsibility to stress the issue of uncertainty with regard to TAC increases since beyond the current level more risk to the stock is introduced. That said, the level of acceptable risk is the responsibility of managers to decide. With regard to speculating on the precise outcomes of a TAC of 75,000 t or 70,000 t, he indicated that he could only say that both of these TAC figures carry risks. In the event of a TAC of 70,000 t the trend in improving stock biomass would essentially remain, even when the uncertainties not addressed in the probability table are considered.

Morocco indicated that the catches of skipjack include juvenile bigeye and yellowfin tuna and asked Dr Melvin for guidance on what measures should be taken to minimise these catches of juvenile bigeye and yellowfin tuna. Dr Melvin signaled that this issue could be addressed in several ways, including avoiding areas where juveniles aggregate, which should be know to fishing captains and/or employing new technologies to estimate fish size (e.g. acoustics). The latter option is more costly than the first.

7. and 8. Consideration of bigeye TAC for 2023 and beyond / Allocation key for distribution of bigeye tuna TAC

The Chair of the panel deferred agenda items 7 and 8 on "Consideration of bigeye TAC for 2023 and beyond" and "Allocation key for distribution of bigeye TAC", respectively to be addressed at the same time. To facilitate discussion of the TAC, allocation, and other measures, the Chair invited CPCs to present their proposals.

Presentation of proposals by CPCs

Japan presented "Proposed Principles for Bigeye Tuna Allocation", which was described as being relatively different in nature from the other proposals. It contains a variable allocation key, depending on whether the TAC level is fixed at 70,000 t or 75,000, and involves allocation of a supplement which is added to the current TAC (difference between the fixed TAC and the current TAC). The allocation scheme also varies for developing coastal countries vs. other CPCs. The proposal rests on two levers: TAC increase and a reduction in catches of juvenile bigeye tuna. The proposal is attached as **Appendix 3**.

El Salvador presented a "Draft Recommendation by ICCAT Replacing Recommendation 21-01 on a multi-annual conservation and management programme for tropical tunas", submitted by CPCs from Latin America who consider that they have had to make large sacrifices with the adoption of Rec. 19-02 and that this proposal protects the rights of developing CPCs and the artisanal fisheries, the essential points of which are as follows. For bigeye tuna, a TAC of 77,500 t with an associated probability of not overfishing of 50% in accordance with scientific advice is proposed taking into account acceptable margins of risk, a new allocation using a new reference period (2016-2019) for a duration of three years (2023-2025), a freeze on catches at existing levels in Rec. 21-01 for CPCs that were subject to catch limits in Rec. 16-01. It would also remove catch limits for newcomers to the bigeye tuna fishery or for countries whose catches are less than 1,000 t and incentives for CPCs with the lowest catches (1,000-3,500 t). Other prohibition/limitation include measures on carryovers and transfers, a 2-month FAD fishery closure (one month of which can be chosen by each CPC). For yellowfin tuna, the proposal included an increase in the TAC from its current level of 110,000 t to 120,000 t. This proposal is attached as **Appendix 4**.

The European Union presented the "Draft Recommendation by ICCAT to amend Recommendation 19-02 to replace Recommendation 16-01 on a multi-annual conservation and management programme for tropical tunas" (an earlier version was submitted to Panel 1 during the 2021 Annual Meeting) the key principles of which are as follows: to provide a full range of management and conservation measures that can ensure that the stocks of tropical tuna can be sustainably managed in line with ICCAT Convention objectives, setting a level of fishing opportunities which are sustainable and manageable in the long term, including increasing the TAC for bigeye tuna in line with the scientific advice which would afford those fishing opportunities in the short and long-term and would respond to the legitimate requests of developing coastal countries.

On reallocation of these fishing possibilities, what is important to the EU is what is allocated, to whom it is allocated and how much. Particular attention must be given to these issues so that these fishing opportunities can benefit developing CPCs and not others through transfers from vessels from one ocean to another or changes of operators. The reallocation could be envisaged in 2 stages, the first in 2023 and then an intersessional process for the following year similar to the process used for Mediterranean albacore. It is also a question of establishing a fishing capacity management system so that it matches fishing opportunities and ensures its proportionality. The EU highlighted that impacts on juveniles must be managed. A key measure has been total closure of the Convention area for three months in 2021 and 73 days in 2022, which is unprecedented in RFMOs. However, all fisheries that are the source of the problem must also be involved. In terms of control measures, those in force are not fully implemented, therefore they must be implemented, reviewed and strengthened where necessary. This proposal is attached as **Appendix 5**.

Côte d'Ivoire presented a "Proposal to amend the preamble and Parts I, II and III of the Recommendation 21-01 by ICCAT replacing Recommendation 19-02 replacing Recommendation 16-01 on a multi-annual conservation and management programme for tropical tunas", submitted by West African countries who consider that the fishing possibilities are not currently fair, equitable or transparent. This draft recommendation contains three main elements: a TAC and its distribution, a prohibition on carryovers and restriction on transfers. As regards the TAC, the decision must be based solely on SCRS recommendations and advice, and is therefore proposed to be 70 000 t, fixed over a period of 4 years (2023-2027), in accordance with paragraph 3 of Rec. 19-02. For allocation of this TAC, four categories (A, B, C, D) of CPCs are defined which will be allocated, respectively, 44%, 17%, 23% and 11% of the TAC set, the remaining 5% is set aside as an equalisation quota (reserve quota). The measure also includes a prohibition on the carryover of any underharvest of bigeye tuna catch limits until the SCRS confirms that the species in the green area of the Kobe plot, and on transfers from a lower category to a higher catch one (e.g. D to C) but transfers are possible within the same category or to a lower catch category (e.g. C to D). This proposal is attached as **Appendix 6**.

The Chair called on CPCs to seek convergence and indicated that the three proposals respond to the three issues of TAC allocation, fishing possibilities and control measures.

Discussions

CPCs reacted to the presentations or asked the authors questions and some CPCs requested, when necessary, the opinion of the SCRS Chair in relation to certain aspects of these draft recommendations.

During the discussions, some CPCs reacted to the restrictions on transfers contained in the proposals from Central America and the West African countries, respectively. The EU asked if this applies to carryover of underage and considered that it would not be correct to authorise developing countries to transfer the fishing possibilities that would be allocated to them.

At least one CPC voiced concerns about the insufficient contribution of the baitboat and handline fisheries to the management efforts for tunas which, according to them, must also assume its share of the sacrifice in particular for the protection of juveniles, which is not clear in Japan's proposal.

One CPC indicated a concern that no criterion (e.g. coastal State) was explicitly set forth in the proposal submitted by the West African CPCs (**Appendix 6**) for allocation and asked what underpins the distribution key for bigeye tuna in Table 1 and the purpose of Table 5 as well as its link to Table 1.

Some CPCs expressed their positions on the bigeye tuna TAC, many CPCs supporting a TAC of 70,000 t with associated probabilities of more than 80% by the end of the projection period (2034) while some CPCs expressed their preference that the TAC be fixed at 75,000 t with 60% or greater probability of being in the green quadrant of the Kobe plot at the end of that period. The latter also raised the issue of enhancing control methods for fisheries other than the purse seine fishery.

Guinea (Rep.) signaled that other complementary measures for tropical tunas such as implementation of the MSE, gear marking in accordance with the FAO guidelines and adoption of biodegradable FADs were as important for tropical tunas management.

In informing of its situation, Korea (Rep.) explained that it has reduced its catches by more than 30% and in the event of TAC increase, it would like to benefit from additional fishing possibilities.

Curaçao invited the CPCs to effectively merge the proposals tabled to contain further control measures and an equitable allocation.

Liberia considered that Rec. 21-01 must be the starting point for negotiations and supported the quota of 70,000 t in accordance with SCRS advice and requested to be co-sponsor of the proposal of the African countries.

Japan asked questions about the other proposals of the CPCs. It addressed El Salvador, indicating first the difficulty in reconciling the objective of the draft recommendation submitted by the Central American countries (**Appendix 4**) which is to maintain the catch level of juveniles and the increase in TAC given the uncertainties highlighted by the SCRS Chair, and questioned the proposal to prohibit of carryovers of quota underharvest which has been the longstanding practice in ICCAT, on suppression of paragraph 31 of Rec. 21-01 on FAD sets and on the ICCAT body that will ask the SCRS to define the artisanal fishery.

Japan suggested that the intersessional session suggested by the EU be held earlier in the year as is done for eastern bluefin tuna in Panel 2. It also questioned Côte d'Ivoire concerning the contradiction between paragraphs 3a) and 5) of the proposal submitted by the West Africa countries (**Appendix 6**) and the prohibition on temporary carryovers of underage.

Côte d'Ivoire responded to the questions from the CPCs by firstly explaining that the choice of TAC of 70,000 t is justified given the likelihood of more than 60% probability of being in the green quadrant. The distribution key proposed will enable coastal countries to develop their fisheries. Paragraphs 3a and 9 are not contradictory since 3a) concerns exceedance by an individual CPC, in which case, paragraphs 10 and 11 will apply to it. As regards paragraph 9, it concerns exceedance of the TAC itself. Paragraphs 5) and 6) are concerned with developing countries and paragraph 12 relates to the impossibility of carrying over underage while the stock is not in the green quadrant of the Kobe plot, the justification for prohibition of carryover of underage.

El Salvador responded to the questions raised by some CPCs, firstly on the control of impacts on juveniles when the TAC is set at a higher level based on a 50% probability, highlighting that the uncertainties raised cannot be regulated by the SCRS. Its option is to implement a trigger for CPCs wishing to develop their capacity. It does not appreciate a contradiction between the request for a higher TAC and the possibilities of transfer/carryover of underharvest because it is the developing CPCs that must benefit from the fishing

possibilities. It reminded that paragraph 21 addresses reduction of the time-area closure and that suppression of paragraph 31 of Rec. 21-01 is explained because the reduction in FADs and the time-area closure are sufficient measures to reduce catches of juveniles. Therefore, it would not be necessary to limit FAD sets. The rationale for SCRS participation in defining the artisanal fishery is on account of the need to define the artisanal fishery based on non-political criteria.

Canada noted that an equitable allocation of fishing opportunities remains a priority and supports the idea of bringing all the proposal elements together in a single package and producing a single comprehensive draft recommendation between now and the annual meeting. It also reminded the Panel that it supports science-based management, consistent with a high probability of the stock being in the green quadrant of the Kobe plot.

Gabon raised a question as regards how the two-month area/time closure, one month of which is to be chosen by each CPC, will be implemented, and the difficulties in managing the data that the Secretariat would receive from CPCs.

El Salvador indicated that the verification methods for these closures would be FAD logbooks and observers.

One CPC asked what would happen if the bigeye tuna TAC in Japan's proposal had to be reduced, and on the EU's proposal, what would happen if the TAC had to be reduced after the first year and how to move towards allocations for large fishers in the proposal of the Central American countries.

The United States asked Côte d'Ivoire a question about paragraph 3d of the proposal, which mentions a duration of 5 years based on the recent bigeye assessment, and what would happen if the SCRS recommends reducing the TAC of 70,000 t and CPCs fail to reach an agreement on this decrease.

In response to the United States, Cote d'Ivoire stated that its proposal is a five-year TAC (2023–2027), but this TAC could be adjusted in 2025 depending on the results of the SCRS bigeye tuna assessment.

The EU considered that it is necessary to reflect on a date for a 2023 intersessional meeting of Panel 1 to discuss capacity plans, which in any case, must be held earlier than proposed as the fishery is different from the bluefin tuna fishery.

Brazil expressed its support for the approach of the West African countries and wishes the TAC to be maintained at 70,000 t until the next bigeye tuna assessment.

Regarding risks, Dr Melvin indicated the SCRS assesses risks, but it is the Commission that must decide on an acceptable level of risk.

The Panel Chair presented the progress that had been made during the discussions held the previous day on the key points of the proposals and that could lead to the following convergences.

On the TAC, some CPCs supported 70,000 t. However, many CPCs (the countries supporting the proposal of the West African countries) considered that, even if it is necessary to increase the TAC, the current TAC of 62,500 t must be the basis for discussions in line with the precautionary approach recommended by the SCRS and that the TAC level will depend on the duration of the plan and the possibilities for its revision, based on new SCRS advice. One CPC also added that any increase in the TAC should be postponed until the next bigeye tuna assessment, which should take place in 2024 or 2025. These dates are pending confirmation by the SCRS Chair.

Some CPCs noted that the precautionary approach is linked to the level of risk to be taken and given the high probabilities of 100% and 97% associated with the TACs of 61,500 t and 62,500 t, respectively, the risk would be nil. One CPC indicated that an overview of the plan, in particular, the complementary measures such as those on juvenile mortality, is required to fully appreciate the level of risk to be taken into consideration when setting a TAC larger than 70,000 t. However, one CPC considered that the SCRS projections already take these risks into account, and it is not necessary to add an additional layer of risk. However, one CPC noted that the projections show decreases over time with a TAC above 70,000 t.

Canada noted that the goal is to have a multi-annual plan, not an interim plan. In order to make a decision on TAC, the methods for the joint longline index used in the 2021 bigeye tuna assessment and the way in which the Kobe matrix is interpreted must be taken into account, as well as the values of the matrix itself.

Some CPCs proposed a TAC of 75,000 t, subject to complementary measures. However, Brazil, South Africa, the United States and several other CPCs signaled that they could not support this TAC in view of their interpretation of the SCRS advice and the weakness of existing control measures to prevent it from being exceeded. Other CPCs indicated that they could not agree to this TAC level because the associated probability is just over 60%, which does not provide sufficient guarantees in terms of security of use of fishing possibilities by developing countries or stock security due to the decrease in probabilities over time, as illustrated by the Kobe matrix.

All CPCs considered that irrespective of the TAC that is ultimately chosen, it must be accompanied by measures on capacity management, FADs, observer coverage, and other complementary measures as well as a regular bigeye tuna assessment during the period of the plan.

In this regard, Japan proposed to adopt some form of harvest control rule, e.g. with a 70% probability, which would force the Commission to reduce the TAC if the probability is below this value in future bigeye tuna assessments.

Japan presented the document "Harvest Control Rule for bigeye" that it had prepared on this harvest control rule, and firstly recalled that SCRS advice on reduction of juvenile bigeye tuna catches is clear and involves adjustments to TAC to be made if the probability is below or above 70% in the next bigeye tuna assessment suggested for 2024.

Different CPCs reacted to this document either to clarify the date of the next bigeye tuna assessment (in 2024 or 2025) or to mention the exceptional nature of the 70% probability. Others supported the idea of a trigger. Japan provided clarification on paragraph 3 that stipulates that the practice of the Commission is to adopt TACs which correspond to probabilities of 50–60%, and the probability of 70% is applied exceptionally given the uncertainty associated with the stock assessment. Regarding the expiry of 2028, which does not correspond to the duration of a plan which usually lasts 15 years, Japan explained that 2028 marks the mid-point of the recovery programme (2020-2034), but can be placed between square brackets. It was also noted that this proposed rule was not a "Harvest Control Rule" in the usual sense of this term (e.g. part of a Management Procedure resulting from a Management Strategy Evaluation), but rather a pre-agreement on TAC change in a specific set of circumstances, and should be called something else to avoid confusion.

By the end of discussions on the TAC, it was acknowledged that CPCs had converged towards two figures - 70,000 t and 75,000 t - subject to complementary measures. However, multiple CPCs maintained that the current TAC of 62,000 t should be considered the basis for negotiation and any increases would only be considered if accompanied by suitable complementary provisions that would ensure the safety of the stock.

A revised version of this proposal is attached as **Appendix 7**.

Summary

The Chair recommended discussing the principles of allocation of fishing possibilities and TAC distribution, even with multiple TAC figures having been tabled. To start the discussions, the Panel Chair asked CPCs how the TAC will be distributed and what the advantage of the proposals is compared to Rec. 21-01. Japan explained its proposal which, in the case of a TAC of 70,000 t, is to allocate the entire increase in TAC to developing coastal countries, and in the case of a TAC of 75,000, to allocate on a pro-rata basis the additional 5,000 t to other CPCs.

During the discussions, many CPCs considered that the element of historical catches is merely one allocation criterion of Rec. 15-13 that discriminates against CPCs that have never participated in the fishery, and that, therefore, the current distribution system which is based thereon is not fair and equitable and that it is unacceptable for developing CPCs that this situation should continue.

Returning to the allocation key in the proposal submitted by the West African CPCs (**Appendix 6**), Côte d'Ivoire explained that the elements of Rec. 21-01 were the basis for TAC distribution because the increases in catches by some CPCs cannot continue as at present. Therefore, all CPCs must have a limit and the sum of these limits

must not exceed the TAC. Allocation is based on the multi annual distribution to countries divided into the categories A, B, C and D with figures, and is accompanied by a prohibition on transfers to higher groups, while also providing for an equalisation or reserve quota to cover new CPC entrants.

In reference to its proposal (**Appendix 5**), which is similar to the Japanese proposal, the EU takes Rec. 16-01 as a starting point due to the 21% reduction in its catch limit in Rec. 21-01. Three aspects should be considered as the basis for allocation, i.e., how much is allocated (TAC), to whom (which beneficiaries) and at what speed, with a degree of transfer restriction.

El Salvador reaffirmed that TAC figures are necessary to discuss allocation and considered that the TAC increase should be allocated to developing coastal countries, while also ensuring that the TAC is not exceeded through appropriate mechanisms. The countries included in paragraph 3 of Rec. 19-01, which have reduced their catches by 21%, will not be requested to make additional efforts. Countries of the group with catches below 1,000 t will not be subject to limits. There has been a change in the current reference period for calculation of limits from 2014–2018 to 2016–2019.

Some CPCs reminded that the new allocation key must meet the needs and legitimate rights of developing coastal countries to participate in these fisheries and that transfers must not be allowed.

Although small harvesters, the United States, the United Kingdom, and Canada, noted the importance of this fishery to them and expressed their interest in continuing to participate in it responsibly. They noted a preference to remain outside the allocation table, taking into account the need for appropriate safeguards, including a trigger threshold with respect to catch and, the arrangement ensures that the TAC for the bigeye fishery would be respected. There was general support for this concept, and the United States agreed to draft some language for consideration.

In response to a question from Guatemala on the utility of the equalisation quota, Côte d'Ivoire explained that it can be used as a reserve to allocate fishing possibilities to new entrants based on a capacity plan. This was done for bluefin tuna.

Some countries such as the United States, the United Kingdom and Canada, which consider themselves to be small harvesters, expressed their continued interest in this fishery but do not wish to be included in the allocation table with an exact limit, opting for a flexible catch limit outside the allocation table with a trigger to move into the allocation table if a pre-established limit is exceeded.

In response to a request from the EU, the Secretariat recalled that 20 CPCs expressed varying levels of support for a TAC of 75,000 t while at least 7 CPCs expressed a preference for a TAC of 70,000 t. The remainder of those CPCs in attendance had not yet specified a preferred figure, with at least one CPC reminding the Panel that the current TAC of 62,000 t should serve as the basis for negotiations given the scientific advice and the linked nature of the elements of a new proposal.

Later in the meeting, the Chair asked if there has been any progress on the bigeye tuna TAC during CPC contacts.

Some CPCs requested that the two TAC figures be kept in square brackets and that the principle of equitable allocation be maintained for any TAC that is chosen and the African countries requested that the provisions of Rec. 21-01 regarding the moratorium be maintained.

Mexico expressed its position in support of the precautionary approach for a TAC of 70,000 t or lower and its distribution on a fair and equitable basis with complementary control measures and provision to the SCRS of the required data.

Responding to a question from the EU on how the allocation has been carried out, Côte d'Ivoire indicated that the starting point was data on the ICCAT website, the reference period being 2014-2018, the same as in Rec. 21-01 and that the difficulty in this recommendation is that the sum of the countries' allocations amounts to 69,485 t and is therefore inconsistent with the first part of Japan's proposal. The principle of allocation is to redistribute the TAC to developing countries, but an effort has been requested of the seven CPCs with limits to reduce these within the context of this reallocation.

The EU then suggested that the sponsors of the proposal submitted by the West African CPCs (**Appendix 6**) add a column to highlight the allocation details. However, it expressed its preference that the majority of CPCs be included in the table of the proposal submitted by the Central American CPCs (**Appendix 4**) without excluding

the option of a small harvester category with a trigger. The 15% reserve quota in this proposal is considered too high and some CPCs would, therefore, be left out of the table, and the EU suggested reducing it to a reasonable level.

The United States and Canada again expressed their preference for a small harvester category with a trigger as opposed to a specific allocation.

China (P.R.) and Korea (Rep.) requested that transfers be maintained, as the limit and its transfer depend on the holder.

South Africa asserted that the two basic principles for allocation are a sufficient level of flexibility for small scale fishers with capacity and compliance with the commitment contained in Rec. 19-01 to move towards a more favourable allocation for developing countries that have the right to develop their fisheries, an allocation that must not be linked to the level of the TAC as developing coastal countries only catch 20%.

The EU considers that the 15% reserve is too large. The United States, in conjunction with Canada and other interested CPCs, will work on a text for a small harvesters group with non-binding limits, including safeguards to avoid additional pressure on the stock or exceeding the TAC.

El Salvador explained that there are two remainders, i.e. the 15% reserve and the unused remainder of a CPC's limit. The idea of the prohibition on transfer of the latter is to discourage CPCs from requesting a share that they will not use.

9. Review of potential capacity limits in light of the allocation key

The Chair reminded that some CPCs had converged their positions on TAC to 70,000 t and 75,000 t, and the need to revise the TAC when new advice becomes available, a "Harvest Control Rule for bigeye" (**Appendix 7**) proposed by Japan. He recalled that four allocation proposals have been tabled and asked whether it is useful to include all CPCs in the allocation table. He added that several aspects relating to data requirements, TAC duration, responsibility of CPCs to ensure that the set TAC is not exceeded and transfers between similar or higher categories still need to be discussed in terms of equity. He returned to the current measures on harvesting of juveniles, the FAD moratorium and limitation of number of FADs, asking CPCs to discuss the duration of the moratorium, which is 73 days, while some CPCs propose two consecutive or separate months.

Japan signaled that the SCRS has been sufficiently clear on area/time closure and FADs; the duration of the area/time closure and reduction in number of FADs are not very effective to reduce juvenile mortality, and more direct measures such as limitation of FAD sets, which is indicated in Rec. 19-02 and 21-01, must be introduced. Therefore, CPCs with purse seine vessels were expected to submit the data to the SCRS by 31 July 2021 at the latest. The SCRS however has not been able to carry out the work because CPCs have not provided these data.

The EU indicated that a science-based decision is key and recalled that regarding FADs and juvenile mortality, the SCRS has signaled that the latter could affect the stock. ICCAT has already adopted unprecedented specific measures in purse seine fisheries that have not yet been assessed by the SCRS. Further measures regarding biodegradable FADs and FAD records are possible and do not only concern purse seine vessels.

Senegal signaled the adoption of biodegradable FADs in its purse seine fishery within the framework of a certification process.

As to the moratorium, El Salvador signaled that it was awaiting the work of the SCRS in September this year, but that their group still upheld the proposal of a two-month closure on FAD fishing, one month of which is to be chosen by each CPC, while agreeing to the use of biodegradable FADs and the FAD record. Therefore, an intersessional meeting before the annual meeting would be very useful.

The United States did not wish to comment on the TAC until the other measures have been addressed, taking into account SCRS advice on reduction of juvenile bigeye and yellowfin tuna catches, and maintained that the impact of gears on juveniles has been assessed by the SCRS since 2018 and that the United States cannot accept a reduction of the moratorium and, on the contrary, even wishes for an increase.

As to FAD sets, some CPCs considered that SCRS advice encourages measures to be taken to limit their number. Japan explained that limiting FAD sets can be envisaged since these are directly related to juvenile catches. Therefore, if this measure is taken, the time/area closure for FAD fishing could even be eliminated in the future and the TAC increased in order to better meet the fishing aspirations of developing countries. According to paragraph 31 of Rec. 21-01 and Rec. 19-02, historical data must be sent to the Secretariat by 31 July 2022 so that the SCRS can perform its assigned work, and CPCs are invited to make submissions.

Two CPCs considered that those CPCs which have not provided these data by 31 July should not fish from 1 August 2022, in accordance with paragraph 31 of Rec. 21-01.

However, some CPCs signaled that there is currently no SCRS recommendation to reduce FAD sets, and that the data that should enable the SCRS to carry out this work are not available and the formats are not specified. The EU indicated that it is not yet known how to limit these sets and referred to its proposal (**Appendix 5**), signaling that the analysis must be comprehensive and take into account all gear types that impact juveniles, and not be limited to just two gears. Therefore, in its proposal the EU proposed elements in this regard and in relation to biodegradable FADs.

The Chair of Panel 1 asked the SCRS Chair for advice on FAD sets to be issued by the Committee and then invited the Secretariat to specify the necessary data and signaled that the analysis of all gears targeting bigeye and yellowfin tuna must be carried out.

Côte d'Ivoire indicated that biodegradable FADs are important in terms of pollution but do not significantly affect aggregation of juvenile bigeye or yellowfin tuna, and that it would be appropriate to limit FAD sets but difficult to implement and control in the current context of ICCAT control measures.

Brazil expressed its support for Japan's proposal to limit FAD sets to better understand the effects of all gears and its efforts in taking the domestic measures described in its capacity management plan. The additional measures undertaken concerned a freeze on purse seiners, reduction of the active fleet in 2018, definition of two fishing areas and establishment of a tuna commission in Brazil, and halving the size of the artisanal fishery i.e. from 500 to 250 small vessels. Other measures sought to reduce effort. Brazil would like to participate in the work to assess the contribution of all fleets to this juvenile bigeye tuna mortality.

The Secretariat explained that the historical FAD set data required under paragraph 31 of Rec. 21-01 must be provided through the form ST08. A document [PA1_506/i2021] was prepared in 2021. Some CPCs provided the data in another aggregate format that cannot be used for statistical analysis. The Secretariat indicated that it is for Panel 1 to specify what data are needed.

In response to the question whether the form ST08 is sufficient for analysis by the SCRS, the Secretariat reminded that the other necessary forms are ST03 on fishing effort, number of FAD sets and ST01 for determination of the number of active vessels having fished tropical tunas per year.

The SCRS Chair indicated that this level of detail is currently missing and that the SCRS only receives this information in late July.

9.1 Carryovers and transfers

As regards carryover of quota underharvest, three CPCs (Japan, China (P.R.) and Chinese Taipei) considered that Rec. 21-01 and Rec. 16-01 provide for this carryover system with the allocation table that enables CPCs to carryover. As to transfers, Japan considered that allocation negotiations are easier for CPCs if transfer possibilities are envisaged, as in the case of South Atlantic albacore. China (P.R.) asserted that it will be difficult to reach an agreement if transfers are prohibited.

By contrast, on transfers, the EU considered that it would not be appropriate to have new fishing opportunities and transfer these to others, as this would mean that others would benefit from the sacrifices agreed to by some CPCs. What is sought is a reallocation of fishing possibilities in favour of developing countries and that these transfer possibilities do not facilitate negotiations.

In their proposal, the CPCs of the West African group have removed provision allowing the carryover of underharvest and have limited transfers, which are only authorised between equal categories and to lower CPC categories so that a CPC does not claim a quota to then give it to others, among other perverse effects of the transfer. The Central American CPCs are against carryovers and propose their elimination.

Japan signaled that there are intersessional transfers and transfers that are contained in recommendations, such as those in Rec. 21-01. The former could be suppressed, but the latter should be maintained.

Dr Melvin advised that the current projections do not take carryovers into account, as the SCRS considers that the entire TAC is caught and that CPCs comply with the limits; carryovers may have either positive or negative effects on biomass and fishing mortality.

10. Review of current requirements related to monitoring, control and surveillance (MCS)

This point was not discussed in detail due to lack of time and since some of the issues had been discussed by CPCs attending the Working Group on IMM.

11. Yellowfin tuna TAC and allocation

Very little time was spent on this agenda item. Some CPCs recommended maintaining the TAC at its current level while one CPC underscored the limits of the latest yellowfin tuna assessment and expressed concern about the impacts of juvenile catches by purse seiners on this stock and the need to take those impacts into account.

12. Other matters

12.1 Next Steps on development of a new tropical tuna proposal

In summary, the Chair signaled that the bigeye tuna stock is not in a good state but could be if all CPCs make the necessary efforts and compromises. Therefore, with a view to the horizon of November 2022, it is necessary to reflect on the steps that should be taken and include all these aspects in the report, the draft of which will be circulated to the CPCs for comment within deadlines. Some questions put to the groups tabling proposals, will be sent to them for discussion within these groups, and with all CPCs.

CPCs reiterated their positions on certain points and converged on a maximum bigeye tuna TAC of 75,000 t or lower, as well as measures to reduce juvenile mortality and guarantees that the TAC will not be exceeded. Regarding allocation, an opening for small harvesters, such as Canada, the United States and the United Kingdom, is foreseen. These CPCs will work to propose ideas, positions and wording, and a text will be shared with the Secretariat and the Chair for this purpose.

CPCs are expected to provide comments on the issues of equity and the distribution of bigeye tuna fishing possibilities. As it will be difficult to meet in person between now and November, with a view to making progress before the annual meeting in November 2022, a small group will be established to discuss transfers and carryover.

He asked CPCs for their thoughts on the process to make headway before November 2022.

All CPCs recognised that the small group will enable progress and afford compromises which could be submitted to the Commission. Regarding the work method, an option would be to merge the four proposals and establish different options (e.g., on the TAC range) which would remain in square brackets, with the possibility of exchanges by correspondence between CPCs.

The Chair, therefore, suggested establishing a small working group with a diverse composition after the normal procedure for report approval, including a timetable.

However, Gabon considered that if the text prepared by the small group is submitted to the Commission meeting, there could be problems with other CPCs that have not participated. Gabon, therefore, proposed an online meeting to make more effective progress before the annual meeting. To make this process more transparent, Gabon suggested that CPC representatives of the small group report to the other CPCs so they do not see this text for the first time at the annual meeting.

To avoid these problems, Japan suggested that the Chair himself prepare a text with the support of the Secretariat or the assistance of an expert or several experts, in a process that includes broad outreach by the Chair to CPCs. The Chair accepted this proposal. This text, which would be the Chair's document, must be open, would be expected to contain numerous square brackets, and must reflect all the views expressed by CPCs. In that regard, all CPCs were invited to contribute their ideas and views on the various elements in writing to the Chair as soon as possible after the close of the meeting.

A one-day online meeting would be useful, like the one held for the North Atlantic shortfin mako shark proposal last year. This virtual meeting was tentatively scheduled for 13 October 2022 and CPCs requested that this meeting be held in the three official languages of the Commission and that interpretation be made available.

12.2 Interpretation of SCRS meetings and other issues

A few CPCs noted the inability of ICCAT to provide interpretation in the three official languages of the Commission during some SCRS meetings due to a lack of available funds. They stressed that the issue must be discussed within STACFAD during its 2022 meeting, noting that working only in English during these SCRS meetings puts some developing countries at a disadvantage.

It was also noted that a programme needs to be developed to build the capacity of scientists from developing countries. Constraints regarding the rules of participation and of access to funds for developing CPCs was also noted. Uruguay considered that it is necessary for all CPCs to participate in SCRS meetings and noted that the issues of capacity building, participation by scientists and interpretation must be addressed within STACFAD. The Chair indicated that, while Panel 1 has no competence in these areas, it can and would submit the issues to the relevant ICCAT bodies for consideration.

13. Adoption of the report and adjournment

It was agreed that the report would be adopted by correspondence.

The Chair thanked everyone for their hard work and adjourned the meeting.

Appendix 1

Agenda

1. Opening of the meeting
2. Appointment of rapporteur and meeting arrangements
3. Adoption of the Agenda
4. Review of fishery management, capacity and FAD plans submitted by CPCs, including any request for clarification
5. General overview of Rec. 21-01
6. Summary of the status of bigeye and yellowfin tunas and related SCRS advice
7. Consideration of bigeye TAC for 2023 and beyond
8. Allocation key for distribution of bigeye TAC
9. Review of potential capacity limits in light of the allocation key
10. Review of current requirements related to monitoring, control and surveillance (MCS)
11. Yellowfin tuna TAC and allocation
12. Other matters
13. Adoption of report / adjournment

Appendix 2

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Appendix 3

Proposed Principles for Bigeye Tuna Allocation
(Submitted by Japan)

Japan has been advocating that allocation should be gradually transferred from developed CPCs to developing CPCs and this should be done when the TAC increases. Based on this idea, Japan submitted to the 2021 Commission meeting, a proposal that TAC should be increased to 70,000 t and that all the increase of TAC from 61,500 t should go to developing CPCs, particularly coastal developing CPCs [PA1_510/2021].

However, the discussion at the 2021 Commission meeting revolved around interpretation of SCRS advice i.e. whether TAC can be increased or not, thus the Commission could not make progress on the methodology of allocation.

Therefore, Japan proposes to set aside the interpretation of SCRS advice on TAC level and instead first discuss general rules for TAC allocation. The specific figure for TAC should be considered separately once general rules on TAC allocation have been agreed and a consensus is found on the level of TAC.

1. General rules for allocation

Based on the basic position that coastal developing CPCs should receive more allocation as TAC increases, Japan proposes as follows:

a) If TAC is increased, all the increase shall be allocated to developing coastal CPCs until TAC reaches 70,000 t. The developing coastal CPCs shall decide a formula on how to allocate the increased portion among themselves.

b) If TAC is increased beyond 70,000 t, 30% of the amount above 70,000 t shall be allocated to developing coastal CPCs in accordance with the formula in a). The remaining 70% shall be allocated to CPCs with allocations greater than 1,000 t (those CPCs may include developing coastal CPCs) on a pro-rata basis.

c) In the consideration of the allocation contained in a) and b) above, the sum of the allocations plus the most recent catches of CPCs without allocations (X) shall not exceed the TAC. If X is greater than the TAC, the overage shall be deducted from the 70% portion on a pro-rata basis.

2. Measures to ensure that the allocations to developing CPCs are utilized for their own benefits

Japan noted that in past Panel 1 meetings, concern was expressed that development of coastal CPCs' fisheries could not be achieved in an effective manner if the allocations to the developing coastal CPCs are utilized by foreign fleets fishing in the coastal waters of CPCs and the fish caught there are not landed, consumed or processed in those coastal CPCs. To address this concern, Japan believes that at least transfer of allocations from developing coastal CPCs to others should be prohibited and that any exception should be subject to approval of the Commission. Additional rules should be considered such as giving priority to developing CPCs with landing obligations and landed products destined for domestic canneries.

3. Better management on FADs to further increase TAC

Japan recognizes that the TAC needs to be increased significantly to accommodate all the development aspirations of developing countries. For this purpose, the TAC should be increased without imposing unnecessary risks on stock recovery or maintenance. This could be achieved through increasing the MSY level of the stock by reducing juvenile catch, which requires more effective FAD management measures such as limitation of the number of FAD sets. In order to sustain sufficient productivity of the stock, the potential increase in TAC shall be used by the non-FAD fishery and the number of FAD sets should not be increased even if TAC increases. Unfortunately, the SCRS could not provide its advice on the effects of the FAD set

limitation in 2021 due to lack of data submitted by the CPCs. Japan urges PS CPCs to submit historical FAD data in due course so that the SCRS can conduct the necessary analysis and provide its advice on this matter to the Commission in 2022.

In order to indicate the level of increase in MSY through reduction of the FAD fishery, the result of the analysis conducted by the SCRS in 2018 is reproduced below. In this analysis, the impact on MSY of reducing the fishing mortality of FAD purse seine and reallocating that mortality to other fleets, was examined. For example, if the fishing mortality of FADs+Ghana is reduced 100% and reallocated to PS Free School, Baitboat and Longline, MSY would increase by 46%. This is because the catches of juvenile fish by FADs+Ghana is replaced by the catches of larger fish by other types of fisheries, thereby more fish can contribute to reproduction. Assuming that TAC could be increased at the same rate as the increase in MSY, the TAC of 61,500 t could be increased to 89,790 t by replacing 100% of FADs + Ghana fishery with other fisheries.

Table 19.4.1. Percent change in bigeye tuna maximum sustainable yield (MSY) associated with a reallocation of fishing mortality from an individual fleet to the other fleets. Scenarios examined included a 10%, 20%, 50%, and 100% reallocation of F from purse seines on free schools, fishing on FADs+Ghana, baitboats, and longlines. Under the current fleet allocation (i.e. status quo) the MSYs estimated for bigeye using the DST were 76,087 t, 77,536 t and 77,401 t for Run 3 which is the closest to the median run.

Bigeye Run 3 Maximum Sustainable Yield				
Treatment	*PS Free School*	*FADs+Ghana*	*Baitboat*	*Longline*
10% reduction	-0.2%	10%	0.2%	-2%
20% reduction	-0.5%	17%	0.3%	-5%
50% reduction	-1%	32%	1%	-13%
100% reduction	-2%	46%	2%	-30%

Appendix 4

Draft Recommendation by ICCAT Replacing Recommendation 21-01 on a multi-annual conservation and management programme for tropical tunas

(Submitted by Belize, Curaçao, El Salvador, Guatemala, Honduras, Nicaragua and Panama)

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

NOTING that the yellowfin stock status is not overfished and without overfishing;

FURTHER NOTING that the bigeye stock status is overfished but not subject to overfishing;

[…]

[…]

TAKING INTO ACCOUNT that the *Recommendation by ICCAT on the Principles for Decision Making for ICCAT Conservation and Management Measures* (Rec. 11-13) mandates that for stocks that are not overfished nor subject to overfishing the management measures shall be designed to result in a high probability of maintaining the stock in this quadrant.

TAKING FURTHER INTO ACCOUNT that the *Recommendation by ICCAT on the Principles for Decision Making for ICCAT Conservation and Management Measures* (Rec. 11-13) mandates that, for overfished stocks that are not subject to overfishing, the Commission shall adopt management measures designed to recover these stocks in the shortest time possible taking into account, among other things, the biology of the stock and SCRS advice.

RECOGNISING that the bigeye catches in 2020 were 6% below the TAC and the SCRS projection that the bigeye stock will have a significantly better status at the end of 2021 (probability of being in the green zone > 80%) than at the end of the last year (2019) of the assessment.

CONSIDERING that the results of the projections carried out by the SCRS for the yellowfin and bigeye stocks indicate that TAC levels of 120,000 t and 77,500 t, respectively, would ensure the sustainability of both stocks with a probability greater than 50%;

RECOGNISING the need to continue assessing whether the new measures incorporated in the Multi-Annual Plan from 2019 have been effective in maintaining the yellowfin and bigeye catches below the TACs adopted by the Commission;

TAKING FURTHER INTO ACCOUNT that it is necessary to explore adaptive systems or regimes as the behaviour of fisheries develops to ensure the effectiveness of tropical tunas management and for which the SCRS recommendation is required;

CONSIDERING that the SCRS continues to recommend that effective measures be found to maintain FAD-related and other fishing mortality of small yellowfin and bigeye tuna so it does not increase;

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 negative consequences for the productivity of bigeye and yellowfin tuna fisheries (e.g. reduced yield at MSY);

CONSIDERING the need to receive additional information from the SCRS regarding the impact that the purse seine support vessels have on FAD management and fishing effort;

FURTHER CONSIDERING the need to increase the observation of fishing vessel fishing activities to be able to assess, with acceptable precision, their impact on non-target species, particularly threatened and protected species, as well as other impacts on the ecosystem;

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

FURTHER RECALLING the commitment of the Commission to re-examine the ICCAT criteria for the allocation of fishing possibilities, based on the criteria of ICCAT Resolution 15-13;

RECOGNISING the interests of developing coastal States to develop their fishing opportunities, and committing to achieve a more equitable distribution of fishing opportunities to developing coastal States over time;

FURTHER RECOGNISING the rights and special needs of small scale artisanal fishers:

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

PART I
GENERAL PROVISIONS

Interim conservation and management measures

1. Without prejudice to the allocation of fishing rights and opportunities to be adopted in the future, for the years 2023-2025, the Contracting Parties and the Cooperating Non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as CPCs) with vessels that have been actively fishing for tropical tunas in the Atlantic shall apply the following interim management measures with the objective of maintaining the mortality of tropical tuna populations at sustainable levels, in particular small bigeye and yellowfin, while the Commission obtains additional scientific advice to adopt a long-term multi-annual management programme.

Multi-annual management, conservation, and rebuilding programme

2. CPCs whose vessels have been actively fishing for tropical tunas in the Atlantic shall continue implementing the 15- year rebuilding programme for bigeye tuna, which started in 2020 and will end in 2034, included, with the goal of achieving B_{MSY} with a probability of more than 50%. CPCs shall also implement management measures to ensure that the skipjack and yellowfin stocks continue to be sustainably exploited, with the objective of not exceeding F_{MSY} and of reaching B_{MSY} with a probability no lower than 50%.

   […]
   […]
   […]

3. The provisions of this Recommendation do not constitute long-term rights and shall not be in detriment to future output and/or input measures adopted by the Commission. These provisions shall not prejudice the rights and obligations under international law of those developing coastal CPCs whose current fishing activity for tropical tunas is limited or non-existent, but that have a real interest in fishing these species and may wish to develop their own fisheries targeting tropical tunas in the future.

4. Without prejudice to the provisions applicable to each CPC, each of these shall give special consideration to the needs and specificities of the small scale artisanal fishers.

5. All CPCs shall implement robust monitoring, control and surveillance measures, as appropriate, considering their capacity and resources.

PART II
OUTPUT MEASURES

Catch limits

6. **Bigeye:** The annual total allowable catch (TAC) for bigeye shall be 77,500 t in 2023-2025. The TAC for 2026 and future years shall be considered in 2025 based on SCRS advice.

7. **Yellowfin:** The annual TAC for yellowfin shall be fixed at 120,000 t in 2023-2025 and shall remain in place until changed based on scientific advice.

8. **Eastern skipjack:** The annual TAC for eastern skipjack in 2023-2025 shall be fixed at XXX,XXX t and shall remain in place until changed based on scientific advice.

9. **Western skipjack:** The annual TAC for western skipjack for 2023-2025 shall be fixed XXX,XXX t and shall remain in place until changed based on scientific advice.

Provisional allocation mechanisms

10. **Bigeye:** As an interim measure, from 2023 to 2025, both inclusive, the following provisions shall apply:

    a) CPCs included in the table contained in paragraph 3 of ICCAT Recommendation 16-01[1] shall maintain their catch limits, as agreed in ICCAT Recommendation 21-01[2].
    b) CPCs not covered by paragraph 3 of Rec. 16-01 with average bigeye catches during the reference period 2016-2019 of more than 3,500 t shall apply a catch limit 7% lower than their average reference catch.
    c) CPCs not covered by paragraph 3 of Rec. 16-01 with average bigeye catches during the reference period 2016-2019 between 1,000 t and 3,500 t may increase their catches by 7% based on their reference catch.
    d) Developing coastal CPCs in the Convention area not covered by paragraph 3 of Rec. 16-01 with no catch or average bigeye catches during the reference period 2016-2019 lower than 1000 t are not subject to allocation of catch limits.
    e) Those CPCs not covered by the measures specified in 10a-d shall maintain their bigeye catches at levels not higher than their annual recorded maximum catch during the reference period 2016-2019.

    The Commission shall allocate an underage not lower than 15% of the total average reference catch for CPCs covered by paragraph 10d, to facilitate the development of fisheries by developing coastal CPCs in the Convention area and ensure that such development does not cause overages of the TAC established in paragraph 6 of this Recommendation.

11. **Yellowfin:** Based on the effectiveness of the measures adopted by the Commission to maintain the yellowfin catches in 2021 and successive years at levels no higher than the TAC set out in paragraph 7 of this Recommendation, the Commission shall consider the adoption of a specific allocation scheme for yellowfin tuna.

12. **Eastern skipjack:** Based on the effectiveness of the measures adopted by the Commission to maintain the eastern skipjack catches in 2023 and successive years at levels no higher than the TAC set out in paragraph 8 of this Recommendation, the Commission shall consider the adoption of additional measures for the eastern skipjack stock.

[1] China, Chinese Taipei, European Union, Ghana, Japan, Korea (Rep.), and Philippines.
[2] China (4462 t), Chinese Taipei (9226 t), European Union (13421 t), Ghana (4250 t), Japan (13980 t), Korea (Rep.) (677 t), and Philippines (491 t).

13. **Western skipjack:** Based on the effectiveness of the measures adopted by the Commission to maintain the western skipjack catches in 2023 and successive years at levels no higher than the TAC set out in paragraph 9 of this Recommendation, the Commission shall consider the adoption of additional measures for the western skipjack stock.

Catch underages

14. Any CPC that wishes to transfer catch underages shall have to submit a transfer authorization request to Panel 1, which includes a detailed report of the amount it wishes to transfer and reasons for such transfer, attaching all the relevant documents requested by Panel 1. When analysing the transfer requests, Panel 1 shall take into account the guidelines contained in **Annex 1** of this Recommendation. The CPC requesting the transfer may proceed with it if no objection is received from any Panel 1 member within 10 working days of communication of the request.

Catch overages

15. The catch overages regarding the annual catch limit of bigeye tuna for CPCs included in paragraph 10 shall be deducted from the annual catch limit in a maximum of two years, as shown in the following table:

Year of catch	*Years of adjustment*
[…]	[…]
[…]	[…]
2020	*2022-2023*
2021	*2023-2024*
2022	*2024-2025*
2023	*2025-2026*
2024	*2026-2027*
2025	*2027-2028*

16. Notwithstanding the provisions of paragraph 15, if any CPC exceeds its annual catch limit:

    a) in one year, then the amount deducted in the adjustment year shall be determined as 100% of the overage; and
    b) during any two consecutive years, the Commission shall recommend appropriate measures to restrict the catches, which shall include reduction in the catch limit equal to 125% of the excess catch.

[…]
[…]
[…]

17. If in any given year, the total catch exceeds the relevant TACs specified in paragraphs 6-9, the Commission shall review these measures taking into account the provisions of paragraph 3 of this Recommendation.

[…]
[…]
[…]

PART III
INPUT MEASURES

Capacity limitation for tropical tunas

18. A capacity limitation shall be applied for the duration of the multi-annual programme, in accordance with the following provisions:

a) By 31 January each year, each CPC fishing with recent average catches of more than 1,000 t for tropical tunas shall produce an annual capacity/fishing plan that outlines how that CPC shall ensure that its overall fleet capacity is managed to ensure that the CPC can meet its obligation to maintain its catches of bigeye, and its yellowfin and skipjack catches, consistent with the provisions of paragraphs 10-13.

b) Any CPC with recent average catches of tropical tunas less than 1,000 t that have planned an expansion of capacity in 2023 or successive years, will provide a declaration by 31 January 2023.

[…]
[…]
[…]

19. CPCs shall not increase the number of support vessels from the numbers registered in 2019. This limit shall be revised based on the SCRS assessment of impacts and recommendation.

[…]

Limitations on FAD fishing

FAD management objectives

20. The general objectives for management of FADs and support vessels in the Convention area are defined as follows:

a) to minimize potential impacts that high FAD 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 fishing on the productivity of bigeye and yellowfin stocks that result from catching high numbers of juveniles that aggregate with skipjack on FADs;

c) to minimize the impact of FAD 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.

FAD closure

[…]
[…]
[…]

21. In order to reduce the fishing mortality of juvenile bigeye and yellowfin tunas, purse seine and baitboat vessels fishing for, or vessels supporting activities to fish for, bigeye, yellowfin and skipjack tunas in association with FADs in the high seas or EEZs shall be prohibited for two months, as indicated below:

a) From1 to 31 January, both included, during the application period of this measure, throughout the Convention area.

b) For an additional period of 30 days, at the choice of each CPC, which must be notified to the ICCAT Executive Secretary before 20 January of each year this measure is applicable; and published by the ICCAT Secretary before 1 March each year.

22. In addition, each CPC shall ensure its vessels do not deploy drifting FADs during a period of 15 days prior to the start of the closure period.

23. The Commission shall take into account the SCRS recommendations in future revisions to this provision. For its assessment, the SCRS shall consider monthly trends in free school and FAD-associated catches and the monthly variability in the proportion of juvenile tuna in catches. The SCRS should provide this advice to the Commission in 2024.

[…]

FAD limitations

24. CPCs shall ensure that, for vessels flying their flag, the following limits shall apply on the number of FADs with operational buoys at any one time according to definitions given in **Annex 2.** The number of FADs with operational buoys will be verified through the verification of telecommunication bills. Such verifications shall be conducted by the competent authorities of the CPCs: 2023-2025: 300 FADs per vessel.

[…]
[…]
[…]

PART IV
MONITORING AND CONTROL MEASURES

Specific authorization to fish for tropical tunas

25. 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 (hereinafter referred to as "authorized vessels").

ICCAT Record of authorized tropical tuna vessels

26. 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.

27. A CPC may allow bycatch of tropical tunas by vessels not authorized to fish for tropical tunas pursuant to paragraphs 25 and 26, if the CPC establishes a maximum onboard bycatch limit for such vessels and the bycatch in question is accounted for within the CPC's 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.

28. CPCs shall notify the list of authorized vessels to the Executive Secretary in an electronic form and in accordance with the format set out in the *Guidelines for Submitting Data and Information Required by ICCAT*.

29. CPCs shall, without delay, notify the Executive Secretary of any addition to, deletion from and/or modification 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 ICCAT Secretariat. The ICCAT Secretariat shall remove from the ICCAT Record of Vessels any vessel for which the periods of authorization have expired.

30. 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.

31. Conditions and procedures referred to in the *Recommendation by ICCAT amending Recommendation 13- 13 concerning the establishment of an ICCAT record of vessels 20 metres in length overall or greater authorized to operate in the Convention area* (Rec. 21-14) shall apply *mutatis mutandis* to the ICCAT record of authorized tropical tuna vessels.

Vessels actively fishing tropical tunas in a given year

32. Each CPC shall, by 31 July each year, notify to the ICCAT Executive Secretary:
    a) 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.
    b) The number of fishing units less than 20 m LOA in accordance with the criteria set out in Annex 1 of the FAO document CWP-IS/2019/11[3], or alternative criteria recommended by the SCRS.

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

33. The provisions of paragraphs 25 to 32 do not apply to recreational vessels.

Fishing plans

34. CPCs should provide ICCAT, by 31 January each year, with a fishing and capacity management plan including the measures that they will implement to ensure full compliance with provisions in paragraphs 10-13 of this Recommendation.

35. Any developing CPC intending to increase its participation in ICCAT fisheries for tropical tunas shall endeavour to prepare a statement of its development intentions for tropical tunas with the purpose of informing other CPCs of potential changes in the fishery over time. These statements should 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.

Recording of catches and fishing activities

36. 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 3** and in the *Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area* (Rec. 03-13).

[…]
[…]
[…]

Monitoring of catches

37. CPCs shall report each quarter to the Secretariat the amount of tropical tunas (by species) caught by vessels flying their flag, within 30 days of the end of the period during which the catches were made.

38. For purse seiners and large longline vessels (LOA 20 m or greater), CPCs shall also report on a weekly basis when 80% of their catch limits have been caught. Under no circumstances will the provisions of this paragraph exempt all CPCs from the obligation to declare quarterly catches for all their fisheries, as per the provisions of paragraph 37.

39. The Secretariat shall notify all CPCs once 80% of the TAC has been caught.

40. CPCs shall report to the ICCAT Secretariat the dates when their entire catch limit of bigeye tuna has been utilized. The ICCAT Secretariat shall promptly circulate this information to all CPCs.

[3] 11e.pdf (fao.org)

41. The notification of catches established in paragraphs 37 and 38 is mandatory. Non-compliance by a CPC of these obligations will lead to the suspension of its tropical tuna fishing rights for that year. The ICCAT Secretariat shall inform the Commission regarding those CPCs that have failed to report catches of tropical tunas according to the provisions set in paragraphs 37 and 38 of this Recommendation.

FAD Management Plans

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

43. The objectives of the FAD Management Plans shall be the following:

    a) improve the knowledge about FAD characteristics, buoy characteristics, FAD fishing, including fishing effort of purse seiners and associated support vessels, and related impacts on target and non-target species;
    b) effectively manage the deployment and recovery of FADs, the activation of buoys and their potential loss;
    c) 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 FADs set by each purse seiner, fishing capacity, number of support vessels).

44. The Plans shall be drawn up by following the Guidelines for Preparation of FAD Management Plans as provided in **Annex 4**.

FAD logbook and list of deployed FADs

45. 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 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 a FAD:
        i. Position
        ii. Date
        iii. FAD type (anchored FAD, drifting artificial FAD)
        iv. FAD identifier (i.e., FAD marking and buoy ID, buoy type, for example, simple buoy or buoy associated with an 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 a FAD:
        i. Type of visit (deployment of a FAD and/or buoy[4], retrieving FAD and/or buoy, strengthening/consolidation of FAD, 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 another vessel, fishing set on a FAD[5])
        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)

[4] 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).
[5] A fishing set on a FAD includes two aspects: fishing after a visit to a vessel's own FAD (targeted) or fishing after a random encounter with a FAD (opportunistic).

vi. Buoy ID
vii. If the visit is followed by a set, the results of the set in terms of catch and bycatch, 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 reporting 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 5** as reporting format. When using paper logbooks, CPCs may seek, with the support of the Executive Secretary, harmonized formats. In both cases, CPCs shall use the minimum standards recommended by the SCRS in **Annex 6**.

46. CPCs shall also ensure that all vessels referred to in paragraph 45 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 7**.

Reporting obligations on FADs and on support vessels

47. 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:

a) 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;
b) 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;
c) the average number of beacons/buoys activated and deactivated on a monthly basis that have been monitored by each vessel;
d) average number of lost FADs with active buoys on a monthly basis;
e) for each support vessel, the number of days spent at sea, per 1° grid area, month and flag State;
f) 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 2 data requirements (i.e., per 1°x1° statistical rectangles and per month);
g) when the activities of the purse seiners are done in association with baitboats, notify the catches and effort in line with Task 1 and Task 2 requirements as "purse seine associated to baitboats (PS+BB)".

48. For longline vessels flying their flag and with 20 metres length overall (LOA) or greater targeting bigeye, yellowfin and/or skipjack in the Convention area, CPCs shall ensure that the minimum observer coverage of fishing effort increases from 10% of fishing effort to 20% from now until 2025, through the presence of a human observer on board in accordance with **Annex 8** and/or an 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 2023 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;
c) Data analysis standards, e.g., converting video footage into actionable data by the use of artificial intelligence;

d) Data to be analysed, e.g., species, length, estimated weight, fishing operation details;
e) Reporting format to the ICCAT Secretariat.

CPCs are encouraged to continue conducting trials on electronic monitoring and report the results back to the IMM and the SCRS in 2023 for their review.

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

49. CPCs shall submit all relevant data and administer scientific observer programmes 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 programmes including how coverage should be stratified across vessels, seasons and areas to achieve maximum effectiveness.

50. 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.

51. 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 8** or through an 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.

52. Each year, the ICCAT Secretariat shall compile the information collected under 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.

53. In 2023, the 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

54. The port sampling programme developed by the SCRS in 2012 shall be continued for landing or transhipment 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.

[…]
[…]
[…]

Availability of data to the SCRS and to national scientists

55. CPCs shall ensure that:

a) both paper and electronic fishing logbooks and the FAD-logbooks referred to in paragraph 36, where applicable, are promptly collected and made available to national scientists;
b) the Task 2 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.

56. 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.

Confidentiality

57. 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.

PART V
ASSESSMENT AND REDUCTION OF IMPACTS MEASURES

Purse-seine: Non-entangling and biodegradable FADs

58. 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, CPCs shall:

a) Ensure that all FADs deployed are non-entangling in line with the guidelines under **Annex 9** of this Recommendation, in accordance with previous ICCAT Recommendations;
b) Ensure that 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;
c) Report on an annual basis on the steps undertaken to comply with these provisions in their FAD Management Plans.

PART VI
MANAGEMENT PROCEDURES/MANAGEMENT STRATEGY EVALUATION

Management Strategy Evaluation (MSE) and Candidate Harvest Control Rules

59. 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 baitboat) on juvenile mortality and the yield at MSY.

PART VII
TASKS

60. 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_505A/2019[6] 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 Convention 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 2023 and forwarded to the Commission for consideration;

[6] Available on request from the Secretariat or the 2019 Annual Meeting website https://www.iccat.int/com2019/index.htm#es.

c) the ICCAT Secretariat shall identify a Consultant to carry out an evaluation of the 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 ICCAT Secretariat shall work with SCRS scientists to prepare a TOR for this work as soon as possible;

d) the SCRS will propose a definition of artisanal fishery to the Commission, based on criteria relating to the type of fishing boat and gear used, the fishing area and the utilization of the catches.

PART VIII
FINAL PROVISIONS

61. In 2025 an intersessional meeting of Panel 1 will be held to revise the existing measures and, among other things, to develop catch limits and associated catch verification mechanisms from 2026.

62. This Recommendation replaces Recommendation 21-01 and shall be reviewed by the Commission in 2025.

63. All CPCs commit to implement the present Recommendation on a voluntary basis as of 1 January 2023.

Annex 1

Criteria for the carryover of underages

Any CPC wishing to request the carryover of underages for a stock subject to a catch limit shall address a request to the ICCAT Executive Secretary with at least the following information:

a) Name of the CPC;
b) Stock;
c) Annual catch and catch limit applicable in the year in which the underage was produced;
d) Fleet component concerned and reasons why the CPC did not consume its catch limit (exceptional or *force majeure* reasons);
e) Amount of catch to be carried over and year of receipt of the carryover;
f) Possible impacts of the amount of catch carried over on the distribution of catches by fishing gear in the year of application, where applicable.

CPCs members of ICCAT Panel 1 shall take into account the following criteria in the assessment of requests for carryover of underages by a CPC:

1. The carryover of underages from a CPC to itself is permitted only in the year following the year in which the underage is recorded;
2. Requests for the carryover of underages corresponding to the previous year must take place before January 31 of the year of application;
3. Only CPCs which have not consumed 10% or more of their applicable catch limits may carryover the underage;
4. The carryover of underages must not exceed 500 t or 25% of the catch limit applicable to the CPC;
5. The carryover of underages must be linked to exceptional circumstances or cases of *force majeure*;
6. Any request for carryover of underages by a CPC must include the information indicated in (a)-(f) above.

Requests for the carryover of underages shall be addressed to the Executive Secretary of ICCAT (info@iccat.int), and shall be distributed to the members of Panel 1 within a period not exceeding 5 working days from the date of receipt of the communication. The requesting CPC may execute such carryover if no objection is received from one or more members of Panel 1 within a period of 10 working days from the date of communication by the ICCAT Secretariat.

Annex 2

Definitions

Support vessel: 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.

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.

Fish Aggregation 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 set: Setting a fishing gear around a tuna school associated with a FAD.

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

Activation of a buoy: 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.

Annex 3

Requirements for catch recording

Minimum specifications for paper or electronic logbooks

1. The logbook must be numbered by sheets.
2. The logbook must be filled in every day (midnight) 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 said 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, transhipments

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

Annex 4

Guidelines for Preparation of FAD Management Plans

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

1. Description
    a) FAD Type: AFAD=anchored; DFAD= drifting
    b) Beacon/buoy type
    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) Reduction of incidental bycatch and utilization policy
    f) Consideration of the interaction with other gear type
    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 5

FAD logbook

FAD Markings	*Buoys ID*	*FAD type*	*Type of visit*	*Date*	*Time*	*Position*		*Estimated catches*			*Bycatch*				*Observations*
						Latitude	*Longitude*	*SKJ*	*YFT*	*BET*	*Taxonomic group*	*Estimated catches*	*Unit*	*Specimen released alive*	
(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/(in degrees and minutes) or E/W/(in degrees and minutes).
(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 specimens.
(13) If no FAD marking or associated beacon ID is available, report all available information in this section which may help to describe the FAD and to identify the owner of the FAD.

Annex 6

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).

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

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).

	Name	*Description*
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
	FAD removal	FAD retrieval
	Fishing	Fishing set on a FOB[1]
BUOY	Tagging	Deployment of a buoy on FOB[2]
	Remove the buoy	Retrieval of the buoy equipping the FOB
	Loss	Loss of the buoy/End of transmission of the buoy

(1) A fishing set on a FOB includes two aspects: fishing after a visit to a vessel's own FOB (targeted) or fishing after a random encounter with a FOB (opportunistic).

(2) 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 7

List of deployed FADs and buoys on a monthly basis

Month:

FAD Identifier		*FAD & electronic equipment types*		*FAD*				*Observation*
FAD Markings	*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.

Annex 8

Observer Programme

1. The observers referred to in paragraph 54-60 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 ICCAT 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 observed 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 2 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 transhipment 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).

Properties	*DFAD*	*AFAD*	*HALOG*	*FALOG*	*ANLOG*	*VNLOG*
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 millimetres)	X	X		X		
Distance between the surface and the deepest part of the FOB (in metres)	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/echosounder 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

Annex 9

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 bycatch 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.

Appendix 5

Draft Recommendation by ICCAT to amend Recommendation 19-02 to replace Recommendation 16-01 on a multi-annual conservation and management programme for tropical tunas
(Submitted by the European Union)

(This proposal is based on document PA1_512/2021)

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

NOTING that the stock assessment for bigeye tuna (BET) in 2021, based on data up to and including 2019, indicated that the stock is overfished but no longer subject to overfishing, and that the assumed catches for 2021 result in a strong reduction of fishing mortality and a growth in SSB leading to a prediction that the bigeye tuna stock at the end of 2021 will be in a significantly better status (probability of being in the green zone > 80%) than the stock at the end of the last year of the assessment in 2019 (probability of being in the green zone = 41%);

RECALLING the successive reductions of the TAC for bigeye tuna from 85,000 t to 62,000 t and the negative socio-economic impact of these reductions;

FURTHER NOTING the challenges in implementing TACs in the absence of comprehensive allocation schemes and of clear catch limits for most of the participants in the fisheries of bigeye tuna and yellowfin tuna, including some major harvesters;

ACKNOWLEDGING the concerns expressed by the SCRS regarding the 2020 catch levels of yellowfin tuna, which remain above the TAC for this stock and represent the highest landings since 2016 notwithstanding the reductions in catches implemented by CPCs with catch limitations;

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 support vessels contribute to the increase in efficiency and capacity of purse seiner vessels using FADs and that the number of support vessels has increased significantly over the years;

FURTHER TAKING INTO ACCOUNT the reported reductions of the catches of tropical tunas under FADs in 2020 and 2021, and the contribution of the FADs measures adopted in 2019 to these reductions;

ACKNOWLEDGING the absence of clear ownership of FADs, and the inherent challenges this creates to manage FADs related activities;

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

RECOGNISING the interests of developing coastal States to develop their fishing opportunities, and committing to achieve a more equitable distribution of fishing opportunities to developing coastal States over time;

FURTHER RECOGNIZING that fishing overcapacity is a pressing problem that threatens marine fisheries sustainability due to overfishing, any increase of fishing capacity should remain commensurate with fishing opportunities to achieve sustainable productive fisheries, while allowing developing coastal States to adapt their fishing capacity to take advantage of new fishing opportunities;

CONCERNED about the level of implementation of the catch limits adopted under Recommendation 19-02, and the importance of the CPCs strictly adhering to these catch limits for the TAC to be effective as a tool to limit fishing mortality from capture fishery;

EMPHASIZING the importance of preventing an uncontrolled increase of the fishing capacity, and in particular the necessity to prevent the transfer of capacity from other oceans to the Atlantic;

ACKNOWLEDGING the limitations of the current list of vessels engaging in fishing for tropical tunas, and the challenges this creates to efficiently manage fishing capacity;

NOTING the existence of significant challenges to effectively monitor transshipment operations at sea;

ALSO NOTING the potential benefits of ICCAT re-activating a Regional Observer Program to strengthen the Monitoring, Control and Surveillance of the fleets, and in turn to ensure the appropriate implementation of the management measures adopted by the Commission;

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

PART I
GENERALPROVISIONS

Multi-annual Management and Conservation Programme

1. CPCs whose vessels are actively fishing for tropical tunas in the Atlantic shall implement a management programme through 2034, with the goal of achieving B_{MSY} with a probability of more than 60% for each stock of tropical tunas.

PART II
CATCHLIMITS

Catch limits for bigeye tuna

2. The Total Allowable Catch (TAC) for bigeye tuna shall be [75,000] t. The TAC shall be reviewed by the Commission on the basis of the SCRS advice.

3. Starting in 2023, the following catch limits shall be applied to the following CPCs:

CPC	*Annual catch limits*
China	5,376
European Union	16,989
Ghana	4,250
Japan	17,696
Philippines	286
Korea (Rep.)	1,486
Chinese Taipei	11,679
[Developing coastal CPCs]	[XXX]

4. In 2023, an intersessional meeting of Panel 1 shall be organized to establish catch limits for the CPCs seeking participation in the bigeye tuna fisheries. This should include a process of reallocation of fishing opportunities towards developing coastal States, which shall be guided by Resolution 15-11 and by the following criteria:

   a) The allocation of fishing opportunities under Recommendation 16-01 shall be the starting point for the process of reallocation towards developing coastal States;

b) A specific quota shall be established for the group of developing coastal States wishing to develop their fisheries. For this purpose, future TAC increases decided by the Commission shall be allocated as a priority to developing coastal States;

c) Consistent with the CPCs' duties to cooperate[1] to ensure the conservation of highly migratory stocks and promoting the objective of optimum utilization, developing coastal States shall cooperate to agree on the distribution of fishing opportunities within this specific quota so that each CPC is eventually subject to a specific catch limit;

[…]

d) Developed coastal States shall ensure that the fishing opportunities of their small-scale artisanal fishers are not negatively impacted by possible transfer/reallocation to developing coastal States, and special consideration shall be given to the specificities and needs of these small-scale artisanal fishers.

5. CPCs which are not listed under paragraph 3 and which are not developing coastal States shall [maintain their annual catch under 1,575] t.

6. Until they are allocated a specific share of the TAC in the context of the process described under paragraph 4, CPCs which are not listed under paragraph 3 and which are developing coastal States shall maintain their annual catches at the level of their recent average catches[2].

7. CPCs shall adjust their fishing effort to be commensurate with their available fishing opportunities.

Underage or overage of catch of bigeye tuna

8. Overage of an annual catch limit for CPCs listed in paragraph 3 for bigeye tuna shall be deducted from the annual catch limit of the following year:

Year of catch	*Adjustment Year*
[…]	[…]
2021	2023
2022	2024
2023	2025
2024	2026

9. Notwithstanding paragraph 8, if any CPC or group of CPCs exceeds its annual catch limit:

a) In one year, then the amount deducted in the adjustment year shall be determined as 100% of the overage; and

b) 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.

10. For CPCs listed in Paragraph 3 of Rec. 16-01, underage or overage of an annual catch limit shall be added to/or deducted from their annual catch limit two years later, subject to 10% of initial quota restrictions noted in paragraphs 9a and 10 of Rec. 16-01.

Monitoring of catch

11. CPCs shall report quarterly to the Secretariat the amount of tropical tunas (by species) caught by vessels flying their flag, within 30 days of the end of the period during which the catches were made.

[1] Agreement for the implementation of the provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the conservation and management of straddling fish stocks and highly migratory fish stocks.
[2] Recent average catch for the purposes of paragraph 6 means 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.

12. For purse seiners and large longline vessels (LOA 20m or greater), CPCs shall report on a monthly basis, increasing to weekly when 80% of their catch limits have been caught.

13. The Secretariat shall notify all CPCs once 80% of the TAC has been caught.

14. CPCs shall report to the ICCAT Secretariat the dates when their entire catch limit of bigeye tuna has been utilized. The ICCAT Secretariat shall promptly circulate this information to all CPCs.

TAC for yellowfin tuna

15. The annual TAC for 2023 and subsequent years of the Multi-annual Programme is 110,000 t for yellowfin tuna and shall remain in place until changed based on scientific advice.

16. Based on the stock assessment and SCRS advice, the Commission shall adopt additional conservation measures for yellowfin tuna at the 2023 annual meeting, which may include a revised TAC, closures or allocated catch limits.

17. If the total catch exceeds in any year the TAC referred to in paragraph 15, the Commission shall consider additional management measures for yellowfin tuna. Any other measures shall recognise the obligations of international law and the rights of developing coastal States.

18. In 2023, the Commission shall establish the allocation between CPCs of the TAC described under paragraph 15.

Fishing, capacity and control Plans

19. By 31 January each year, each CPC intending to authorize vessels to fish for tropical tunas shall submit to the Secretariat:

    i. An annual fishing and capacity plan which shall outline how the CPC will ensure that its overall baitboat, longline and purse seine fleet capacity is commensurate with the allocated quota drawn up, including new fishing opportunities where appropriate, to include the information set forth in paragraphs 3, 5 and 6.

    ii. A monitoring, control and inspection plan with a view to ensuring compliance with the provisions of this Recommendation.

20. Prior to 1 March of each year, the Commission shall convene an intersessional meeting of Panel 1 to analyze and, as appropriate, endorse the plans referred to under paragraph 19. If the Commission finds a serious fault in the plans submitted and cannot endorse these plans, the Commission shall decide on the automatic suspension of tropical tuna fishing in that year by that CPC. Non-submission of the plans referred to above shall automatically lead to suspension of tropical tuna fishing in that year for the CPC concerned.

PART III
CAPACITY MANAGEMENT MEASURES

Capacity limitation for tropical tunas

21. When submitting their 2023 fishing, capacity and control plans to ICCAT, CPCs shall limit the numbers of their purse seiners and large scale longliners (LOA>20m) to the numbers authorized in any given year [2015 or 2019], and shall provide the chosen year of reference to the Secretariat by 31 January 2023.

22. New catching vessels shall only be authorized to replace vessels already authorized with the same gear and, at a minimum, the same length overall.

23. Without prejudice to paragraphs 21 and 22, CPCs shall be allowed to increase their number of catching vessels in a way commensurate with possible increases of their catch limits.

24. CPCs shall only authorize purse seiners already authorized in fishing in the ICCAT Convention area in the previous year.

25. 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 the previous year in the ICCAT Convention area, 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 each year. 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 from the numbers recorded by the time of adoption of this measure.

26. For the purposes of this measure, a support vessel is defined as any vessel, including fishing vessels, 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.

27. The Commission shall establish capacity limits per gear and per CPC to reflect any change in allocation resulting from the process described under paragraph 4.

PART IV
MANAGEMENT OF FISH-AGGREGATING DEVICES (FADs)

FAD management objectives and definitions

28. The general objectives for management of FADs and support vessels in the Convention area are defined as follows:

    a) To minimize the potential impacts that high FAD density may have on purse seine fishing efficiency, while minimizing the 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 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 FAD 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.

29. 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 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).

    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.

vi. Biodegradable FAD: a FAD composed of non-netting from renewable lignocellulosic materials (i.e., plant dry matter - here described as natural material) and/or bio-based biodegradable plastic compounds, prioritizing those materials that comply with international relevant standards or certification labels for plastic compostability in marine environments. In addition, the substances resulting from the degradation of these materials should not be toxic for the marine and coastal ecosystems or include heavy metals in their composition. This definition does not apply to electronic buoys attached to FADs to track them.

FAD closure

30. In order to reduce the fishing mortality of juvenile bigeye and yellowfin tunas, purse seine and baitboat vessels fishing for, or vessels supporting activities to fish for, bigeye, yellowfin and skipjack tunas in association with FADs in the high seas or EEZs shall be prohibited to do so during a seventy-two-day period, from 1 January to 13 March each year, throughout the Convention area. This should be reviewed and, if necessary, revised based on SCRS advice, taking into account monthly trends in free school and FAD-associated catches and the monthly variability in the proportion of juvenile tuna in catches.

31. In addition, each CPC shall ensure its vessels do not deploy drifting FADs for a 15-day period prior to the start date of the closure period.

FAD limitations

32. CPCs shall ensure that, for vessels flying their flag, a limit of 300 FADs (with operational buoys) per vessel shall apply at any one time according to the definitions set out in paragraph 27. The number of FADs with operational buoys shall be verified through the verification of telecommunication bills. Such verifications shall be conducted by the competent authorities of the relevant CPCs.

33. With a view to establishing FAD set limits to keep the catches of juvenile tropical tunas at sustainable levels, in 2023 the SCRS should inform the Commission about the maximum number of FAD sets which should be established in the purse seiner fishery, per vessel or per CPC, as appropriate, to maintain the stock in the green quadrant of the Kobe plot with a high probability whilst simultaneously contributing to increasing the productivity of the stock of bigeye tuna. To support this analysis, by 31 March 2023, CPCs with purse seine vessels shall report to the SCRS the required historical FAD set data, including for 2020. 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 Secretariat.

34. Starting in 2023, a Working Group shall be established to provide recommendations to the Commission on how to establish a FAD registry in ICCAT, in accordance with **Annex 1.**

35. Each year, CPCs shall report the difference between the fishing effort on FADs compared to the previous year, via the submission of Task 2 data.

36. 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 (EMS) on board, whose specifications have been approved by ICCAT for the purpose of verifying set type, species composition, and providing information on fishing activities to the SCRS.

FADs reporting obligations

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

38. The FAD Management Plans shall aim to:

    i. improve the knowledge about FAD characteristics, buoy characteristics, FAD fishing, including the fishing effort of purse seiners and associated support vessels, and related impacts on target and non-target 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 the fishing mortality (e.g. number of deployed FADs, including number of FADs set by purse seiners, fishing capacity, number of support vessels).

    The Plans shall be drawn up by following the Guidelines for Preparation of FAD Management Plans as provided in **Annex 2**.

39. 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 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 information and data contained in **Annex 3.**

40. For the purpose of the collection and reporting 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 4** as a reporting format. When using paper logbooks, CPCs may seek, with the support of the Executive Secretary, harmonized formats. In both cases, CPCs shall use the minimum standards recommended by the SCRS in **Annex 5**.

41. CPCs shall also ensure that all vessels referred to in paragraph 32 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 6**

Non-entangling and biodegradable FADs

42. 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:

    i. ensure that all FADs deployed are non-entangling in line with the guidelines under **Annex 7** of this Recommendation, in accordance with previous ICCAT Recommendations;

    ii. endeavour that all FADs deployed are constructed from biodegradable materials, including non-plastics, with the exception of materials used in the construction of FAD tracking buoys;

    iii. 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

43. CPCs shall issue specific authorizations to vessels 20 meters length overall (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

44. Each flag CPC shall submit electronically each year to the Secretariat: at the latest 15 days before the date of the start of the fishing activity, the record of its catching vessels referred to in paragraph 43. Submissions shall be undertaken in accordance with the format set out in the *Guidelines for submitting data and information required by ICCAT*. That record shall consist of two lists:

    i. all catching vessels authorized to fish actively for tropical tuna;

    ii. all other fishing vessels used for the purposes of commercial exploitation of tropical tuna resources other than catching vessels authorized to target tropical tunas.

45. The Commission shall establish and maintain an ICCAT record of authorized tropical tuna vessels, including support vessels, and clearly identify those vessels authorized to actively fish tropical tunas. 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.

46. A CPC may allow by-catch of tropical tunas by vessels not authorized to fish for tropical tunas pursuant to paragraph 43 and 44, 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 by-catch 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.

47. CPCs shall, without delay, notify the Executive Secretary of any addition to, deletion from and/or modifications to the initial lists. Periods of authorization for modifications or additions to the lists 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.

48. 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.

49. 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.

50. By 31 July each year, each CPC shall notify the Executive Secretary of 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.

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

52. The provisions of paragraphs 44 to 49 do not apply to recreational vessels.

Transhipments

53. Starting in 2023, CPCs whose Large Scale Pelagic Longline Vessels (LSPLVs) are transhipping tuna and tuna like species in the Convention area shall ensure that a minimum of [20]% of these transhipments take place in ports.

54. LSPLVs shall be allowed to transship at sea only in the presence of a Regional Observer onboard, consistent with paragraph 66.

Recording of catch and fishing activities

55. 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 8** and in the *Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area* (Rec. 03-13).

Identification IUU activity

56. 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, during the period of closure request the vessel to stop fishing and, if necessary, leave the area. The flag CPC shall, without delay, report to the Executive Secretary the results of its investigation and the corresponding measures taken.

57. 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.

58. The Executive Secretary shall propose to include any vessels identified in accordance with paragraph 57, or vessels for which the flag CPC has not carried out the required investigation and taken, if necessary, adequate measures in accordance with paragraph 56, on the provisional IUU list.

Observers

59. For observers on board vessels targeting bigeye, yellowfin and/or skipjack tunas in the area east of meridian 20º/West longitude and north of parallel 28º/ South latitude, the following shall apply:

    - 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.

60. For longline vessels flying their flag 20 meters LOA or greater targeting tropical tunas in the Convention area, CPCs shall ensure a minimum of 10% observer coverage of fishing effort by 2023, through the presence of a human observer on board in accordance with **Annex 9** and/or an 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 2023 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 data shall be recorded;
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.

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

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

61. Starting in 2023, CPCs shall ensure 100% observer coverage of all supply/support vessels.

62. 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 how coverage should be stratified across vessels, seasons and areas to achieve maximum effectiveness.

63. 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.

64. 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 9**, or through an Electronic Monitoring System whose specifications have been approved by ICCAT. Each year, CPCs shall report the information collected by the observers from the previous year by 30 April to the ICCAT Secretariat and to SCRS.

65. Each year, the ICCAT Secretariat shall compile the information collected under 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.

Regional Observer Program

66. Starting in 2024, an ICCAT Regional Observer Program shall be implemented in accordance with **Annex 10**, to ensure compliance with the conservation and management measures adopted by ICCAT and to carry out the scientific data collection and tasks required by the SCRS. Under this program, CPCs shall ensure 100% observer coverage of the activities by [purse seiners, supply/support vessels] carrying their flag, and by surface fishing vessels 35 meters LOA engaging in transhipment operations at sea]. The presence of an ICCAT Regional Observer onboard shall waive the requirements for the observers' coverage described under paragraphs 37, 55, 61, 62, and 65.

66 bis. In 2023, on the basis of the advice from IMM, the Commission shall consider how to use existing schemes of Regional Observers, deployed onboard vessels authorized to fish for tropical tunas in ICCAT, for CPCs to meet the obligations set within the scope of the ICCAT Regional Observer Program defined in paragraph 66. For this purpose, the CPCs involved in already existing regional observers' programs should provide details about these schemes to the Secretariat by 31 March 2023, including the copy of the agreement concluded between the Flag State and the CPC of the observers.

66 ter. In order for an existing observer program, as referred to in paragraph 66, to be accepted as a substitute to the ICCAT Regional Observer Program, and to be sufficient to waive the requirements for the observers' coverage described under paragraphs 37, 55, 61, 62, and 65, it shall satisfy the following conditions:

i. the Flag State of the vessel shall comply with the obligations specified in paragraph 11 of Annex 10;

ii. the observer on board shall meet the requirements in Annex 10 in terms of qualifications and shall comply with the obligations and tasks specified in paragraphs 5 to 11 of Annex 10.

Port Sampling Programme

67. The port sampling programme developed by the SCRS in 2012 shall be continued for landing or transhipment 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 (MSE) and Candidate Harvest Control Rules

68. 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 baitboat) on juvenile mortality and the yield at MSY.

PART VII
FINAL PROVISIONS

Availability of data to SCRS and to national scientists

69. CPCs shall ensure that:

a) Both paper and electronic fishing logbooks and the FAD-logbooks referred to in paragraph 39, where applicable, are promptly collected and made available to national scientists;

b) The Task 2 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.

70. 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.

Confidentiality

71. 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

72. Actions required from the SCRS and the Secretariat:

    a) The ICCAT Secretariat shall work with the SCRS in preparing an estimate of capacity in the Convention 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 2023 and forwarded to the Commission for consideration;

    b) The ICCAT Secretariat shall identify a Consultant to carry out an evaluation of the 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 ICCAT Secretariat shall work with SCRS scientists to prepare a TOR for this work as soon as possible.

73. An intersessional meeting of Panel 1 will be held in 2023 to for the purpose of developing allocation schemes for the stocks of bigeye and yellowfin tuna.

74. This Recommendation replaces Rec. 19-02.

75. All CPCs commit to implement the present Recommendation on a voluntary basis as of 1 January 2023.

Annex 1

Working Group on FADs Registry

1. The Working Group shall provide recommendations to the Commission on how to establish an ICCAT FADs registry for the purpose of establishing FADs' ownership and improving control measures of fishing activities on FADs.

2. The Working Group shall in particular:

   a) Explore and report on how a FAD registry could contribute to solving the issue of lack of ownership of FADs, contribute to improving the recovery of FADs and reducing beaching events, and provide a scope for improving MSC measures in relation to fishing activities on FADs.

   b) Identify the feasibility and most effective approach(es) to establish a FAD registry in ICCAT, including by identifying the responsibilities of the CPCs, their operators and the Secretariat, and providing estimates of possible costs.

   c) Report to, and as appropriate, submit recommendations to the Commission.

3. The Working Group shall be assisted by the ICCAT Secretariat in its works. It shall appoint a Chair and Vice-Chair and establish a calendar for its discussions. Starting in 2023, the Working Group shall hold at least one meeting per year back-to-back with the inter-sessional meeting of Panel 1, before the ICCAT Annual Commission meeting in November.

4. The interested CPCs shall notify the ICCAT Secretariat of their interest to participate in the Working Group by 20 December 2021 at the latest, and designate participants to the Working Group.

Annex 2

Guidelines for Preparation of FAD Management Plans

The FAD Management Plan for a CPC purse seine and baitboat 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 3

FAD information for each deployment or visit

a) Deployment of any FAD
   - Position
   - Date
   - FAD type (anchored FAD, drifting artificial FAD)
   - FAD identifier (i.e., FAD marking and buoy ID, type of buoy – e.g. simple buoy or associated with echo-sounder)
   - 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
   - Type of the visit (deployment of a FAD and/or buoy, retrieving FAD and/or buoy, strengthening/consolidation of FAD, 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)
   - Position
   - Date
   - FAD type (anchored FAD, drifting natural FAD, drifting artificial FAD)
   - Log description or FAD identifier (i.e., FAD Marking and buoy ID or any information allowing to identify the owner)
   - Buoy ID
   - 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
   - Last registered position
   - Date of the last registered position
   - FAD identifier (i.e., FAD Marking and buoy ID)

Annex 4

FAD logbook

FAD marking	*Buoys ID*	*FAD type*	*Type of visit*	*Date*	*Time*	*Position*		*Estimated catches*			*By-catch*				*Observations*
						Latitude	*Longitude*	*SKJ*	*YFT*	*BET*	*Taxonomic group*	*Estimated catches*	*Unit*	*Specimen released alive*	
(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/(in degrees and minutes) or °E/W/(in degrees and minutes).
(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 or associated beacon ID is available, report all available information in this section which may help to describe the FAD and to identify the owner of the FAD.

Annex 5

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).

Code	*Name*	*Example*
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).

	Name	*Description*
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[1]
Buoy	Tagging	Deployment of a buoy on FOB[2]
	Remove BUOY	Retrieval of the buoy equipping the FOB
	Loss	Loss of the buoy/End of transmission of the buoy

[1] 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).

[2] 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 6

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.

Annex 7

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.

Annex 8

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) 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, transhipments:

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

Annex 9

Observer Programme

1. The observers referred to in paragraph 59-65 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 transhipment 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).

Properties	*DFAD*	*AFAD*	*HALOG*	*FALOG*	*ANLOG*	*VNLOG*
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

Annex 10

ICCAT Regional Observer Program

1. Each CPC shall require its purse seiners, support/supply vessels, [and surface fishing vessels 35 meters LOA engaging in transhipment operations at sea], involved in tropical tunas fisheries to carry an ICCAT regional observer.

2. By 1 November each year, CPCs shall notify to the ICCAT Executive Secretariat a list of its observers.

3. The Secretariat of the Commission shall appoint the observers before 15 November each year and shall place them on board the fishing vessels flying the flag of Contracting Parties and of non-Contracting Cooperating Parties, Entities or Fishing Entities that implement the ICCAT observer program. An ICCAT observer card shall be issued for each observer.

4. The Secretariat shall issue a contract listing the rights and duties of the observer and the master of the vessel. This contract shall be signed by both parties involved.

Designation of the observers

5. The designated observers shall have the following qualifications to accomplish their tasks:

   - Sufficient experience to identify species and check compliance of the fishing gear with the established technical specifications;
   - 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 evaluate and verify the data and records reported by the master and write reports in accordance with the established requirements;
   - A satisfactory knowledge of the language of the flag of the vessel observed.

Obligations of the observer

6. Observers shall:

   a) Have completed the technical training required by the guidelines established by ICCAT;

   b) To the extent possible, not be a nationals of the flag State of the fishing vessel;

   c) Be capable of performing the duties set forth in point 7 below;

   d) Be included in the list of observers maintained by the Secretariat of the Commission;

   e) Not have current financial or beneficial interests in the tropical tuna fisheries or direct relation with any operator operating in the fishery. An affidavit shall be required to ensure the absence of conflict of interest.

Observer tasks

7. The observer tasks shall be to:

   a) 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 or any other document required by ICCAT;

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 or transhipping activities;

v. Carry out scientific work such as collecting task II data when required by the Commission, based on the directives from the SCRS.

In cases where the observer detect what may constitute non-compliance with ICCAT Recommendations, he/she shall submit this information without delay to the observer implementing company/flag CPC authorities of the catching vessel.

In addition, when deployed on a purse seine or supply/support vessels, the observers shall record:

vi. the number of operations related to the deployment, retrieval, or maintenance of FADs

vii. the number and characteristics of fishing sets, on FOBs, and on free school,

viii. for each fishing set, the estimated quantities caught per species and the average length per species, including for non-target species, and the quantities and/or number released alive or discarded dead.

ix. possible fishing sets on marine mammals or large sharks/rays species, as well as natural logs

x. the fixing of satellite buoys on logs,

xi. the activation and de-activation events of buoys on FADs

xii. the number of FADs being monitored by the vessel

When deployed on longline vessels, the observer shall:

xiii. record, for each fishing set, the quantities of both target and non-target species caught, the average length per species, and the quantities and/or number released alive or discarded dead.

xiv. record possible transhipment operations

b) Report without delay, with due regard to the safety of the observer, any fishing activity associated with FOBs made by the vessel during the period referred to in paragraph 30 of this Recommendation.

c) Obtain, as much as possible, evidence (i.e. photos or videos) of possible non-compliance detected and attach them to his/her report

e) Establish general reports compiling the information collected in accordance with this paragraph and provide the master and farm operator the opportunity to include therein any relevant information.

e) Submit to the Secretariat the aforementioned general report within 20 days from the end of the period of observation.

f) Exercise any other functions as defined by the Commission.

8. Observers shall treat as confidential all information with respect to the fishing and transhipment operations of the fishing vessels and accept this requirement in writing as a condition of appointment as an observer;

9. 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.

10. 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 program, and with the obligations of vessel personnel set forth in paragraph 11 of this Program.

Obligations of the flag States of fishing vessels

11. 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 paragraph 7 of this program:

i) satellite navigation equipment;

iii) radar display viewing screens when in use;

iv) electronic means of communication;

iv) data recorded by the master in the logbook or any other document required by ICCAT

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.

f) Cases involving vessels eligible to embark an observer on-board, but who fail to do so, should be assessed by the Compliance Committee.

The Secretariat, in a manner consistent with any applicable confidentiality requirements, is requested to provide to the flag State of the fishing vessel, copies of all raw data, summaries, and reports pertaining to the trip. The Secretariat shall submit the observer reports to the Compliance Committee and to the SCRS.

Costs of the Program

a) The costs of implementing this Program shall be evaluated by the ICCAT Secretariat in 2023 and presented to IMM Working Group meeting in 2023. The Commission shall adopt a framework for the financing of this Program during its annual meeting in 2023.

Appendix 6

Proposal to amend the preamble and Parts I, II and III of the Recommendation 21-01 by ICCAT replacing Recommendation 19-02 replacing Recommendation 16-01 on a multi-annual conservation and management programme for tropical tunas

(Submitted by Côte d'Ivoire, Gabon, Ghana, Guinea (Rep)., Guinea-Bissau, Mauritania, Morocco, Nigeria, Sao Tomé and Principe, Senegal, Angola, and Liberia)

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

NOTING that the stocks of bigeye and yellowfin tuna are currently overfished;

RECOGNISING that the decisions on fishing possibilities offered to CPCs have been systematically inconsistent with the current TAC for bigeye tuna, which, since implementation of the TAC for bigeye tuna, has regularly led to overharvest;

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% and by 26% in 2017;

TAKING INTO ACCOUNT that *Recommendation by ICCAT on the Principles of Decision Making for ICCAT Conservation and Management Measures* (Rec. 11-13) mandates that for stocks that are overfished and not subject to overfishing (i.e., stocks in the lower left yellow quadrant of the Kobe plot), the Commission shall adopt management measures designed to rebuild these stocks in as short a period as possible, 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 support vessels contribute to the increase in efficiency and capacity of purse seiner vessels using FADs and that the number of support vessels has increased significantly over the years;

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

RECOGNISING the interests of developing coastal States to develop their fishing opportunities, and committing to achieve a more equitable distribution of fishing opportunities to developing coastal States over time;

RECOGNISING the absolute need to develop a fair, equitable and transparent allocation key for bigeye tuna fishing possibilities for CPCs in accordance with the provisions of Resolution 15-13, in particular, article 19;

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

PART I
GENERAL PROVISIONS

Interim conservation and management measures

1. Without prejudice to the allocation of fishing rights and opportunities to be adopted in the future, for the years 2023-2027, the Contracting Parties and the Cooperating Non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as CPCs) with vessels that fish for tropical tunas in the Atlantic will apply the following management measures with the objective of reducing current levels of fishing mortality of tropical tunas, in particular small bigeye and yellowfin.

Multi-annual Management, Conservation, and Rebuilding Programme

2. CPCs whose vessels have been actively fishing for tropical tunas in the Atlantic shall continue the 15-year rebuilding programme for bigeye tuna that has been implemented since 2020 and continuing through 2034, with the goal of achieving B_{MSY} with a probability of more than 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.

PART II
CATCH LIMITS

Catch limits for bigeye tuna

3. The Total Allowable Catch (TAC) for bigeye tuna shall be 70,000 t in 2023, 2024, 2025, 2026 and 2027. The following elements shall apply.

    a) If the total catch exceeds the TAC in any year, the overage shall be paid back by the CPCs to which a catch limit for the species concerned has been assigned. The excess catches shall be deducted in the following year proportionally to the adjusted catch limits / quotas of the CPC concerned, in accordance with paragraphs 10 and 11.

    b) The TAC for 2025 and following years of the multi-annual programme shall be adjusted based on the most recent scientific assessment available and SCRS advice; and taking into account at least the complete data for 2023.

    c) The allocation key which allows to obtain the annual catch limits of the CPCs is applicable for the five-year period from 2023 to 2027, and shall remain unchanged for 2023, 2024 and 2025. It shall be discussed by the Commission for the period after 2027. Notwithstanding, at the request of at least five CPCs of Panel 1, this allocation key may be modified in 2025 or 2026 for the remainder of the years of the period 2023-2027.

4. The allocation key, expressed as a percentage of TAC, shall apply for 2023 and the following years of the multi-annual programme to CPCs, based on the following and in accordance with the table in this paragraph:

a) CPCs classified in category A, corresponding to those whose average catches over the period 2014-2018 have been greater than 10,000 t, shall benefit from 44% of the TAC;

b) CPCs classified in category B, corresponding to those whose average catches over the period 2014-2018 have been greater than 3,500 t and less than 10,000 t, shall benefit from 17% of the TAC;

c) CPCs classified in the category C, corresponding to those whose average catches over the period 2014-2018 have been greater than 1,000 t and less than 3,500 t, shall benefit from 23% of the TAC;

d) The CPCs classified in category D, corresponding to those whose average catches over the period have been less than 1,000 t, shall benefit from 11% of the TAC;

e) Any developing coastal CPC of the Atlantic Ocean that has submitted a declaration of intent to develop its bigeye tuna fishery or has declared its intent to ICCAT to fish this species, including developing coastal CPCs not listed in the categories of the **Table 1** below, may access an additional quota share or a new share of the bigeye quota. Panel 1 shall decide upon the share to be allocated to this developing coastal CPC that has made the request. This share of fishing possibility shall then be taken from the equalisation quota. It should be noted that this equalisation quota corresponds to a share of the TAC that has been set aside to enable development of the fisheries of developing coastal countries and resolve any eventual unanticipated difficulties.

Table 1. Allocation key in percentage of TAC for Atlantic bigeye tuna over the period 2023-2027.

Flag name	*Category*	*Category %*	*Allocation 2023-2027 (%)*
Japan	A	44.00	17.00
EU-all	A		16.18
Chinese Taipei	A		10.82
Brazil	B	17.00	7.06
China (P.R.)	B		5.55
Ghana	B		4.39
Curaçao	C	23.00	4.24
Panama	C		2.76
Cabo Verde	C		2.66
Belize	C		2.64
Senegal	C		2.99
El Salvador	C		2.45
Korea (Rep.)	C		2.11
Guinea (Rep.)	C		1.57
Guatemala	C		1.58
United States	D	11.00	2.26
Côte d'Ivoire	D		1.44
St Vincent and the Grenadines	D		1.35
Morocco	D		1.03
Sao Tomé and Principe	D		0.86
Philippines	D		0.79
Namibia	D		0.72
South Africa	D		0.65
Canada	D		0.60
Venezuela	D		0.52
UK-St Helena	D		0.14
Trinity and Tobago	D		0.12

Liberia	D		0.12
Guyana	D		0.08
Grenada	D		0.07
Barbados	D		0.07
St Lucia	D		0.04
Equatorial Guinea	D		0.03
Vanuatu	D		0.02
Mexico	D		0.01
UK-Turks and Caicos	D		0.01
St Kitts and Nevis	D		0.01
Angola	D		0.01
Mauritania	D		0.01
Great Britain	D		0.01
Dominica	D		0.01
FR-St Pierre and Miquelon	D		0.01
UK-Bermuda	D		0.01
Equalisation quota	*	5.00	5

5. The provisions of paragraph 4 of this Recommendation 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 targeting bigeye tuna in the future. CPCs shall implement robust monitoring. control and surveillance measures. as applicable in relation to their capacity and resources.

6. Small scale artisanal fishers shall be given special consideration to their specificities and needs.

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

8. A CPC of a given category may transfer a share of its bigeye tuna fishing possibilities to another CPC of the same category or to the following category in alphabetical order.

9. If the total catch exceeds in any year the relevant TAC specified in paragraph 3. the surplus shall be paid back by the CPCs responsible for this overage in proportion to the contributions of each to these overages and according to the provisions of paragraph 12.

Underage or overage of catch of bigeye tuna

10. Overage of an annual catch limit for any CPC including those that are not listed in paragraph 4 for bigeye tuna shall be deducted from the annual catch limit of the following year:

Year of catch	*Adjustment year*
2023	2024
2024	2025
2025	2026
2026	2027

11. Notwithstanding paragraph 10. if any CPC exceeds its annual catch limit:

    a) In one year. then the amount deducted in the adjustment year shall be determined as 100% of the overage; and

    b) 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.

12. No carryover of underage throughout the allocation period 2023-2027 and until the stock is in the green quadrant of the Kobe plot.

Monitoring of catch

13. CPCs shall report quarterly to the Secretariat the amount of tropical tunas (by species) caught by vessels flying their flag. within 30 days of the end of the period during which the catches were made.

14. For purse seiners and large longline vessels (LOA 20m or greater). CPCs shall report on a monthly basis. increasing to weekly when 80% of their catch limits have been caught.

15. The Secretariat shall notify all CPCs once 80% of the TAC has been caught.

16. CPCs shall report to the ICCAT Secretariat the dates when their entire catch limit of bigeye tuna has been utilized. The ICCAT Secretariat shall promptly circulate this information to all CPCs.

TAC for yellowfin tuna

17. The annual TAC for 2023 and subsequent years of the Multi-annual Programme is 110.000 t for yellowfin tuna and shall remain in place until changed based on scientific advice.

18. Based on the stock assessment and SCRS advice. the Commission shall adopt additional conservation measures for yellowfin tuna at the 2025 annual meeting. which may include a revised TAC. closures or allocated catch limits.

19. If the total catch exceeds in any year the TAC in paragraph 17. the Commission shall consider additional management measures for yellowfin tuna. Any other measures shall recognise the obligations of international law and the rights of CPC developing coastal States.

Fishing Plans

20. CPCs should provide ICCAT with a fishing and capacity management plan on how they will implement any catch reductions necessary as a result of paragraph 4.

21. Any developing CPC intending to increase its participation in ICCAT fisheries for tropical tunas 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 should 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.

PART III
CAPACITY MANAGEMENT MEASURES

Capacity limitation for tropical tunas

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

    a) By 31 January each year. each CPC fishing with recent average catches of more than 1.000 t 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 the catch of bigeye. and its yellowfin and skipjack catches. consistent with the catch limit established under paragraph 4.

    b) Any CPCs listed in the categories C and D of paragraph 4 as well as those not listed that have planned an expansion of capacity during the period 2023-2027. will provide a declaration at the latest by 31 January each year.

c) The Compliance Committee shall annually review CPCs' compliance with capacity management measures.

23. 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 ICCAT Convention area. and the names of the purse seiner(s) that received the support of each support vessel. This information shall be updated as appropriate and reported no later than 31 January each year. 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 from the numbers recorded by the time of adoption of this measure.

24. For the purposes of this measure. a 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.

Appendix 7

Harvest Control Rule for bigeye
(Proposed by Japan)

1. The TAC for bigeye tuna shall be [70,000][75,000]t [for 2023 and 2024] [from 2023 to 2025]. It shall be reviewed and amended, as necessary, based on the new stock assessment to be conducted in [2024][2025].

2. In reviewing the TAC in [2024][2025], the Commission shall ensure that the probability of the stock being in the green zone in [2028] is at or more than [70]%. If the probability is more than [70]%, the Commission may consider increasing the TAC, provided that the increased TAC will still ensure that the probability of the stock being in the green zone in [2028][2034] is at or more than [70][60]%. If the probability is less than [70][60]%, the Commission shall reduce the TAC to ensure that the probability in [2028][2034] is at or more than [70][60]%.

3. The Commission recognizes that 70% is exceptionally high compared to the percentages used for other ICCAT stocks and that this percentage does not set a precedent for future discussion of the Commission. The Commission may review and revise, if appropriate, [70]% in light of the degree of uncertainties involved in the new stock assessment for future use.