



Compendium of Active Conservation and Management Measures for the Indian Ocean Tuna Commission

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EXPLANATORY NOTES – CONSERVATION AND MANAGEMENT MEASURES

At each Session of the Commission, Contracting Parties (Members) may adopt Conservation and Management Measures (CMMs) concerning the management of tuna and tuna-like species under the IOTC mandate as well as the fisheries which target them. These decisions are passed in the form of either Resolutions or Recommendations.

Resolutions are binding on the Commission Members, unless there is a specific objection on the part of a Member, and require a two-thirds majority of Members present and voting to adopt them.

Recommendations are slightly different in that they are not binding on the Members and rely on voluntary implementation. The Commission may, by a simple majority of its Members present and voting, adopt Recommendations concerning conservation and management measures of the stocks for furthering the objectives of the IOTC Agreement.

The Compendium consists of 66 Active CMMs, comprised of 62 Resolutions and 4 Recommendations (as of 16 September 2023)

Note: Some of the Active CMMs contained in this compendium make reference to other CMMs which have since been superseded. Thus, provided at [Appendix I](#) is a table detailing the history of all CMMs adopted by the Commission. The table is split into current or 'Active' CMMs and those which have been superseded. Where a CMM has been superseded a reference to which CMM replaced it, is provided.

Navigating the Compendium

A number of features exist in the Active Compendium of IOTC Conservation and Management Measures (CMMs) in response to requests from the Commission, to improve the functionality of the document. These are as follows:

- a) Active CMMs have been placed in reverse chronological order;
- b) The contents page has internal links to relevant sections of the Compendium to facilitate simple navigation;
- c) The Index at the end of the Compendium ([Appendix I](#)), details the history of all IOTC CMMs (active and superseded);
- d) Internal referencing of superseded CMMs has been updated, so that references to superseded CMMs now show the latest (active) CMM/s as a hyperlink (e.g. The confidentiality rules set out in the Resolution 98/02 **[superseded by [Resolution 12/02](#)]** *Data confidentiality policy and procedures* for fine-scale data shall apply).
- e) Internal referencing among active CMMs has also been further improved, so that users may switch between one active CMM and another, and back again with ease. The links from one CMM to another, is included within the text of the CMM as follows:

Example: [Resolution 15/01](#) contains the following paragraph 10: The Flag State shall provide all the data for any given year to the IOTC Secretariat by June 30th of the following year on an aggregated basis. The confidentiality rules set out in [Resolution 12/02](#) *Data Confidentiality Policy and Procedures* (or any subsequent superseding Resolution) for fine-scale data shall apply.

Objections to Resolutions

- f) Resolutions adopted by the Commission are considered as self-standing instruments, which enter into force according to the relevant provision of the IOTC Agreement (Article IX.1). If an objection is received to a Resolution, then the CPC who objected is not bound by that Resolution. If an objection is received to a Resolution which supersedes an earlier Resolution, then the CPC who objected is still bound by the earlier Resolution. CMMs in this category are shown as additional text under the title of the applicable CMM (e.g. Resolution 13/06: *On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries.* **(Objection from India: Not binding on India)**)



EXPLANATORY NOTES – ACRONYMS

AFAD	Anchored fish aggregating device
AFV	Authorised fishing vessel
ATF	Authorisation to fish
B _{MSY}	Biomass which produces MSY
CBD	Convention on biological diversity
CMM	Conservation and Management Measure (of the IOTC; Resolutions and Recommendations)
CNCP	Cooperating Non-Contracting Party, of the IOTC
CoC	Compliance Committee, of the IOTC
CPCs	Contracting Parties and Cooperating Non-Contracting Parties , of the IOTC
DFAD	Drifting fish aggregating device
EEZ	Exclusive Economic Zone
FAD	Fish aggregating device
FAO	Food and Agriculture Organization of the United Nations
FOC	Flag of convenience
F _{MSY}	Fishing mortality which produces MSY
GT	Gross tonnage
HCR	Harvest control rule
IMO	International Maritime Organisation
IOTC	Indian Ocean Tuna Commission
IPOA	International plan of action
IUU	Illegal, unreported and unregulated
LOA	Length overall
LRP	Limit reference point
LSTLV	Large-scale tuna longline vessel
LSTV	Large-scale tuna vessel
MoU	Memorandum of understanding
MPF	Meeting participation fund, of the IOTC
MSE	Management strategy evaluation
MSY	Maximum Sustainable Yield
RFMO	Regional Fisheries Management Organisation
ROP	Regional observer programme
SC	Scientific Committee, of the IOTC
SCAF	Standing Committee on Administration and Finance, of the IOTC
SIOFA	Southern Indian Ocean Fisheries Agreement
TCAC	Technical Committee on Allocation Criteria, of the IOTC
TCMP	Technical Committee on Management Procedures
TRP	Target reference point
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
VMS	Vessel Monitoring System
WPEB	Working Party on Ecosystems and Bycatch, of the IOTC
WPM	Working Party on Methods, of the IOTC
WPTmT	Working Party on Temperate Tunas, of the IOTC
WPTT	Working Party on Tropical Tunas, of the IOTC



**ACTIVE CMMs ADOPTED AT THE 6TH SPECIAL SESSION AND 27TH REGULAR
SESSION OF THE IOTC**

2023

RESOLUTION 23/01
ON THE MANAGEMENT OF ANCHORED FISH AGGREGATING DEVICES (AFADS)

Keywords: Precautionary Approach, anchored FADs

The Indian Ocean Tuna Commission (IOTC)

BEARING IN MIND that Article 5 of the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) requires coastal States and States fishing on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as well as information from national and international research programmes;

NOTING that the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fisheries provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by sub-regional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the IOTC Agreement and encouraging sustainable development of fisheries based on such stocks while minimising the level of bycatch;

COGNIZANT that the operational aspects of anchored FADS and drifting FADS are very different and therefore that the requirements of drifting FAD management, such as those relating to the materials used in FAD construction, monitoring frequency and reporting, would be incompatible with the normal operation of anchored FADS.

ADOPTS, in accordance with Article IX, paragraph 1 of the IOTC Agreement, the following:

Definitions

1. For the purpose of this Resolution:
 - a. Fish Aggregating Device (FAD) means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna and tuna like species for consequent capture.
 - b. Anchored Fish Aggregating Devices (AFADs) means a FAD tethered to the bottom of the ocean, usually consisting of a buoy, and is anchored to the bottom of the ocean.

Applications

2. This Resolution applies to all CPCs that deploy AFADs for the purpose of fishing for tuna and tuna like species under the IOTC mandate with the exception of recreational fisheries, and without prejudice or undermining the sovereign right of the coastal States and its existing national regulation.
3. This resolution shall enter into force on 1 January 2024.

AFAD management

4. CPCs shall develop an AFAD Management Plan in accordance with the Guidelines in Annex I and shall submit this AFAD Management Plan to the IOTC Executive Secretary by 1 January 2024.
5. AFAD Management Plans shall be reviewed against the Guidelines in Annex I, by the IOTC Compliance Committee and by the IOTC Scientific Committee each in their respective role with the objective to provide advice to CPCs on areas of improvement.
6. CPCs shall submit to the Commission, through the Annual Report of Implementation their progress of their AFAD management plans, including, if necessary, reviews of the previously submitted management plans.
7. Until a scheme to operationalise the FAO Voluntary Guidelines on the Marking of Fishing Gear (VGMFG) is developed, CPCs shall ensure that their vessels only use AFADs that are permanently marked with a Unique National Identification (UNI) number that identifies either the CPC or the vessel(s) that the AFAD belongs to (which ever applicable). The UNI number shall be clearly and permanently marked on the buoy of the AFAD.
8. The details of the new AFADs deployed within the EEZ of the CPCs (date of deployment, GPS position and the UNI number) shall be reported to the IOTC within 21 days of deployment of the AFADs, and its data confidentiality shall be maintained by the Secretariat. CPCs shall also maintain a register of deployed, lost, abandoned, and discarded AFADs and report this data to the IOTC Executive Secretary in their annual Implementation Report.
9. CPCs shall conduct inspections at sea to ensure that the AFADs are clearly and permanently marked with UNI number. CPCs with limited capacity to undertake at sea inspections may implement port inspections to ensure that the AFADs deployed are constructed and marked as per the requirements specified in this Resolution. CPCs shall communicate the number and outcome of inspections (at sea or in port) in their Annual Implementation Report.
10. The AFAD location data provided by the CPCs as required by paragraph 8 of this Resolution shall only be used for the purposes of the Scientific Committee and relevant Working Parties and should not be publicly shared or circulated for any other purpose.
11. CPCs shall submit the data elements provided in Annex II to the IOTC Executive Secretary, consistent with the IOTC standards for the provision of catch and effort data, and this data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by Resolution 15/01 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence* and Resolution 15/02 *Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)* (or any subsequent superseding Resolutions), and under the confidentiality rules set by Resolution 12/02 *Data Confidentiality Policy and Procedures* (or any subsequent superseding Resolution).

Site selection and construction of AFADs

12. CPCs shall require that their flag vessels deploying new AFADs or replacing existing ones, take into account the nature and profile of the sea bottom when choosing a site and, where possible, avoid sites with steep slopes to minimise the risk of AFAD loss.
13. CPCs shall ensure that the upper floatation of AFADs is suitable for offshore, high current deployments by using designs which are streamlined to reduce drag and resistance to currents and waves.
14. CPCs shall ensure that only non-entangling and non-mesh materials are used in the sub-surface aggregates of AFADs.
15. CPCs shall encourage to construct AFADs from materials that will ensure increased longevity so that they continue to retain their integrity for the longest lifespan possible. Where sub-surface aggregators are attached to the mooring line of AFADs, CPCs should ensure that these aggregators are constructed from bio-degradable materials.

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16. The IOTC Executive Secretary in consultation with the Scientific Committee shall develop a best practice guideline for construction of AFADs and submit it to the Commission for adoption no later than the 29th Annual Session of the IOTC.
 17. The IOTC Scientific Committee shall analyse further information, when available, and provide advice on existing, additional or alternative AFAD management options for sustainable fisheries.
 18. The IOTC Scientific Committee shall, no later than at its annual session in 2025, provide a set of relevant indicators that would allow monitoring the effects of AFAD fisheries and assessing the efficiency of existing/additional/alternative AFAD management options.
 19. The IOTC Scientific Committee shall provide scientific advice by assessing the impact of fishing using AFADs on juvenile tuna mortality and provide advice to the Commission.

ANNEX 1: AFAD Management Plans

AFAD Management Plans shall include:

1. An objective
2. Scope:
 - Description of its application with respect to:
 - a) Vessel types
 - b) AFAD numbers and/or AFAD beacon numbers to be deployed (per AFAD type)
 - c) reporting and/or recording procedures for AFAD deployments
 - d) plans for monitoring and retrieval of lost AFADs
 - e) statement or policy on “AFAD ownership”
3. Institutional arrangements for management of the AFAD Management Plans:
 - a) institutional responsibilities
 - b) regulations applicable to the setting and use of AFADs
 - c) At-sea AFAD repairs, maintenance rules and replacement policy
 - d) data collection system
 - e) reporting obligations
4. AFAD construction specifications and requirements:
 - a) AFAD design characteristics (a description)
 - b) AFAD markings and identifiers, including AFAD beacons, if any
 - c) lighting requirements, if any
 - d) radar reflectors, if any
 - e) radio buoys, if any (requirement for serial numbers)
 - f) satellite transceivers, if any (requirement for serial numbers)
 - g) echo sounder, if any
5. Applicable areas:
 - a) details of any closed areas e.g., shipping lanes, Marine Protected Areas, reserves etc.
6. Means for monitoring and reviewing implementation of the AFAD–MP.
7. Methodologies for recording and reporting data specified in Annex II



Annex II: DATA COLLECTION FOR AFADS

- a) Any fishing activity around an AFAD including catch and bycatch, whether retained or discarded dead or alive.
- b) For each activity on an AFAD (including repair, intervention consolidation, etc.), whether followed or not by a set or other fishing activities, the,
 - i. Position (as the geographic location of the event (Latitude and Longitude) in degrees and minutes)
 - ii. Date (as DD/MM/YYYY, day/month/year)
 - iii. AFAD identifier (i.e. AFAD national identification number, beacon ID or any information allowing to identify the owner).

RESOLUTION 23/03
ON ESTABLISHING A VOLUNTARY FISHING CLOSURE IN THE INDIAN OCEAN FOR THE
CONSERVATION OF TROPICAL TUNAS

Keywords: Yellowfin tuna, Kobe Process, MSY, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECOGNIZING the special requirements of the developing States, particularly Small Island developing States in Article 24(b), of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982, relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECOGNIZING that, in accordance with the UNFSA, FADs under the competence of IOTC must be managed to ensure the sustainability of fishing operations and to avoid adverse impacts on the marine environment, preserve biodiversity, maintain the integrity of marine ecosystems and minimise the risk of long-term or irreversible effects of fishing operations;

FURTHER RECOGNIZING the need to ensure that conservation and management measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, Article 24(c) of UNFSA;

RECALLING that Article 5, of UNFSA entitles the conservation and management of highly migratory fish stocks are based on best scientific evidence available and with special reference to IOTC Resolution 15/10 for a stock where the assessed status places it within the red quadrant, and with an aim to end overfishing with a high probability and to rebuild the biomass of the stock in as short time as possible;

FURTHER RECALLING that Article 6, of UNFSA and IOTC Resolution 12/01 “On the implementation of the precautionary approach”, requires the States to be cautious during the application of the precautionary approach when information is uncertain, unreliable or inadequate and this should not be a reason for postponing or failing to take conservation and management measures;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

FURTHER CONSIDERING the recommendations adopted by the KOBE III, held in La Jolla, California, 12- 14 Jul 2011; considering the status of the stocks, each RFMO should consider a scheme for reduction of overcapacity in a way that does not constrain the access to, development of, and benefit from sustainable tuna fisheries, including on the high seas, by developing coastal States, in particular Small Island Developing States, territories, and States with small and vulnerable economies; and Transfer of capacity from developed fishing members to developing coastal fishing members within its area of competence where appropriate;

FURTHER CONSIDERING the concern of the 20th Session of the Working Party for Tropical Tuna held in Seychelles, 29 October – 3 November 2018, the change in strategy by increase of usage of FADs by the purse seine vessels to maintain catch level targets has led to a substantial increase of juvenile yellowfin tuna and bigeye tuna;

NOTING THAT supply vessels contribute to the increase in effort and capacity of purse seiners and that the number of supply vessels has increased significantly over the years;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the States to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing States, including Small Island Developing States (SIDS) as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

NOTING THAT Article V.2b of the Agreement for the Establishment of the Indian Ocean Tuna Commission give full recognition to the special interests and needs of Members in the region that are developing countries, in relation to the conservation and management and optimum utilization of stocks covered by this Agreement and encouraging development of fisheries based on such stocks;

FURTHER NOTING THAT Article V.2d requires the Commission to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal States. This includes ensuring that conservation and management measures adopted by it do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, especially Small Island Developing States;

AWARE that the Commission is committed to adopt conservation and management measures to reduce juvenile Bigeye tuna and Yellowfin tuna mortalities from fishing effort on DFADs and other fishing gears ;

RECOGNIZING FURTHER the interactions that occur between the fisheries for yellowfin, skipjack and bigeye tuna;

FURTHER CONSIDERING the management advice of the 23rd session of the Scientific Committee (SC23), that given the limitations and uncertainties in the stock assessment and the inability to use K2SM derived from the 2018 yellowfin tuna stock assessment, the catches to be reduced to a level at least below the CMSY estimate (403, 000MT) and the need to decrease the fishing mortality from the 2017 level in order to remove overfishing on the stock;

FURTHER CONSIDERING the issues raised at SC23 regarding the estimated K2SM probabilities derived from the 2018 stock assessment, and that due to critical errors in projections and estimations in computing probabilities in the K2SM developed in 2018, the K2SM is not suitable to provide management advice;

FURTHER CONSIDERING the SC23 advice that Commission should ensure that CPCs take all necessary action to achieve the catch reductions in their fleets as per Resolution 19/01.

FURTHER CONSIDERING that SC25 declared that Bigeye was overfished and subject to overfishing, and the skipjack tuna is fished above the maximum limit prescribed by the Harvest Control Rule in place,

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

APPLICATION

1. This resolution shall apply to all CPCs and fishing vessels, fishing tuna and tuna-like species within the IOTC area of competence.
2. This resolution will be effective from 1st January 2024. The measures contained within this Resolution shall be considered as interim measures and will be reviewed by the Commission no later than at its annual Session in 2025.

Scientific advice on fishing closure

3. The IOTC Scientific Committee shall provide advice and recommendations no later than 31st December 2023 on appropriate fishing closures applicable to all fishing gears. These recommendations need to consider the area, closure period and any other details, with the objective of achieving a high probability of reducing fishing mortality of juvenile tropical tuna, in particular bigeye and yellowfin tuna. If the IOTC Scientific Committee concludes that it does not currently possess access to sufficient scientific data to provide recommendations to the Commission, the SC shall provide recommendations relating to the data necessary for science-based recommendations for the information of the Commission.

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4. In producing its advice and recommendations, the IOTC Scientific Committee shall take into account, *inter alia*:
- a) available IOTC fisheries data;
 - b) fishing behaviours/ patterns in the Indian Ocean, both historically and those anticipated as a consequence of the implementation of the closure or any new management measures.

Fishing Closure

- 5. As a precautionary measure, starting from 2024, all CPCs are encouraged to ensure that their flag vessels fishing for bigeye, yellowfin and skipjack tuna do not fish in the IOTC area of competence for a minimum period of 31 consecutive days, decided in advance, and communicated to IOTC Secretariat no later than 31st of December 2023.
- 6. Alternatively, CPCs may implement voluntary catch reductions for yellowfin tuna in addition to the catch reductions imposed through an active Conservation and Management Measure. Those CPCs may also choose to apply voluntary catch reductions for bigeye and skipjack tuna for 2024. Such CPCs shall report to the IOTC Executive Secretary before 31st December 2023, the targeted voluntary reduction including the reference year which will be circulated by the IOTC Executive Secretary to all CPCs as soon as possible.
- 7. To prevent a disproportionate burden on artisanal fisheries, this Closure Period shall not apply to fishing vessels less than 12 meters LoA fishing in their own EEZ, unless otherwise decided by the CPC.

RESOLUTION 23/04
ON ESTABLISHING CATCH LIMITS FOR BIGEYE TUNA IN THE IOTC AREA OF COMPETENCE

Keywords: bigeye tuna, catch limits, management procedure

The Indian Ocean Tuna Commission (IOTC),

RECALLING the responsibility of IOTC for the conservation and optimum utilization of tuna and tuna-like species in the IOTC area of competence;

RECOGNIZING the need for action to ensure the achievement of IOTC objectives to conserve and manage tuna resources in the IOTC area of competence;

MINDFUL of Article XVI of the IOTC Agreement regarding the rights of coastal States and of Articles 87 and 116 of the United Nations Convention on the Law of the Sea (UNCLOS) regarding the right of all States to fish on the high seas subject to their treaty obligations, the rights and duties as well as the interests of coastal States provided for, inter alia, in Article 64 UNCLOS and the provisions of Section 2 of Part VII of UNCLOS;

RECOGNIZING the special requirements of developing States, particularly Small Island Developing States, in Article 24 of the 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 (UNFSA);

RECOGNIZING Resolution 22/03 *On a management procedure for bigeye tuna in the IOTC area of competence*, which introduced a Management Procedure (MP) for bigeye tuna for the first time in the IOTC;

RECOGNIZING that the 25th Session of the IOTC Scientific Committee (SC25) recommended a total allowable catch (TAC) of 80,583 t of bigeye tuna per year for 2024 and 2025, which requires a 15% catch reduction from the 2021 catch level, in accordance with the MP adopted by Resolution 22/03;

CONCERNED by the latest stock assessment on bigeye tuna conducted in 2022 which determined that the stock is overfished and subject to overfishing with a probability of 79%;

RECOGNIZING that the recommended TAC of 80,583 t, which is 15% below the 2021 catch, is the pre-set maximum decrease under the MP, and that the stock status is more pessimistic than implied by that 15% decrease of TAC;

FURTHER RECOGNIZING the recommendation by SC25 that the Commission ensure effective implementation of the bigeye tuna TAC, especially taking into consideration the current status of the stock as overfished and subject to overfishing;

FURTHER RECOGNIZING that SC25 noted that respecting the bigeye tuna TAC is especially important when taking into consideration the multi-species nature of tropical tuna fisheries and the existing catch limit for yellowfin tuna and the TAC for skipjack tuna;

NOTING that Resolution 22/03 stipulates that “*the Commission shall adopt the TAC based on the outcome of the MP, unless the Scientific Committee identifies exceptional circumstances that require consideration of alternate management actions to be taken by the Commission*”;

NOTING that Resolution 05/01 [superseded by Resolution 23/04] On conservation and management measures for bigeye tuna obliges CPCs to limit their catches to their 'recent' levels;

ADOPTS, in accordance with of Article IX, paragraph 1 of the IOTC Agreement, the following:

TAC and Catch Limits

1. The Total Allowable Catch (TAC) for bigeye tuna shall be 80,583 t in 2024 and 2025 in accordance with the Management Procedure (MP) established by Resolution 22/03 On a management procedure for bigeye tuna in the IOTC area of competence.
2. The annual catch limits as shown in the table below shall be applied in 2024 and 2025.

	Catch Limit (t)
Indonesia	18,605
Seychelles	11,882
EU	17,010
Sri Lanka	4,772
Japan	3,684
China	3,785
Iran	2,105

3. The Commission shall request Taiwan, Province of China to limit their annual bigeye tuna catch in the IOTC area of competence to 11,488 t in 2024 and 2025.
4. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) specifically referred to in the table in paragraph 2 may apply a two-year management period to manage their catch limits for 2024 and 2025 in totality. Any underage of the 2024 catch limit may be added to the catch limit in 2025. Any overage of the 2024 catch limit shall be deducted from the catch limit in 2025. However, these CPCs are encouraged to keep their catch in 2024 below the annual catch limits. These CPCs shall submit a compliance table using the template in Annex 1 which includes current catches, balance, and adjusted catch limit to the IOTC Compliance Committee, which shall review the compliance tables.
5. Any overages from the 2024-2025 management period shall be deducted from the catch limit for the management period commencing from 2026. Any underage from the 2024-2025 management period shall not be added to the catch limit for the management period commencing in 2026.
6. The CPCs specifically referred to in the table in paragraph 2, may transfer up to a maximum of 20% of their initial catch limits to another CPC subject to prior authorization by the Commission. Both CPCs shall provide information to the IOTC Secretariat in terms of the quantity to be transferred. The IOTC Secretariat shall disseminate this information to all CPCs without delay. The absence of explicit objection to such transfer within 2 weeks from the dissemination by the IOTC Secretariat shall be considered as an authorization by the Commission.
7. CPCs that are not specifically referred to in the table of paragraph 2 are encouraged to maintain catch and effort at their recent 5-years average levels (2017-2021), without prejudice to the development aspirations of those CPCs.
8. If a CPC subject to paragraph 7 catches more than 2,000 t, either in 2024 or 2025, the Commission shall consider establishing a binding catch limit applicable to that CPC from the management period commencing in 2026, if an allocation scheme has not yet been agreed and implemented by the Commission.
9. Nothing in this Resolution shall pre-empt or prejudice the future allocation of fishing opportunities.

Chartering Agreements and Export of Fishing Vessels

10. CPCs shall not grant their consent as a flag CPC to a chartering agreement with CPCs that object to this Resolution in accordance with Article IX, paragraph 5 of the IOTC Agreement.
11. CPCs shall not grant their consent as a chartering CPC to a chartering agreement with flag CPCs that object to this Resolution in accordance with Article IX, paragraph 5 of the IOTC Agreement.
12. CPCs shall not export their flagged authorized fishing vessels to CPCs that object to this Resolution in accordance with Article IX, paragraph 5 of the IOTC Agreement.

Scientific Work

13. The IOTC Scientific Committee shall conduct a comparative analysis of the contribution of all fishing gears to the mortality of bigeye tuna, which shall include both absolute and relative contributions to mortality and stock depletion.
14. The IOTC Scientific Committee shall develop a table as shown in Annex 2 that quantifies the expected impact on maximum sustainable yield (MSY) and SSB_{MSY} for bigeye tuna resulting from replacing fishing mortality/catches of any major fishing gear/fishery (e.g., Longline, DFAD fisheries, AFAD fisheries, Purse seine on free school, other fisheries) for consideration by the Commission at its 2025 Session. The IOTC Scientific Committee shall also provide advice on FAD management options, including on, limits on FADs sets, that may be necessary to achieve a replacement of fishing mortality of FAD fisheries with free school fisheries. This analysis shall be conducted for DFADs and AFADs fleets separately.

Final Provisions

15. This Resolution supersedes Resolution 05/01 *On conservation and management measures for bigeye tuna*.

Annex 1

Template of Compliance Table

Year	Initial catch limit		Current catches		Balance		Adjusted catch limit	
	2024	2025	2024	2025	2024	2025	2024	2025

Example of Compliance Table

Year	Initial catch limit (t)		Current catches (t)		Balance (t)		Adjusted catch limit (t)	
	2024	2025	2024	2025	2024	2025	2024	2025
	3,000	3,000	3,100	3,500	400	-100	3,500	3,400

CPC with a catch limit of 3,000 t for 2024 and 2025.

The CPC received a transfer of 500 t from another CPC in 2024. Thus, its adjusted catch limit for 2024 is 3,500 t.

The CPC caught 3,100 t in 2024. Thus, the balance for 2024 is 400, and the balance in 2024 is carried over to/ paid back from the catch limit in 2025. Accordingly, the adjusted catch limit for 2025 is 3,400 t (3,000 + 400).

The CPC caught 3,500 t in 2025. Thus, the balance for 2025 is -100, and this over harvest shall be paid back in the 2nd management cycle commencing in 2026.

Annex 2

Indicative output table for the impact analysis on MSY and SSB_{msy} for bigeye tuna resulting from replacing fishing mortality of FAD fisheries with free school fishery.

Treatment	Percent change in MSY	Percent change in SSB _{msy}	Necessary FADs control measure(s)
10% replacement	XX%	YY%	ZZ% reduction of FADs set Limit on FADs set: AA sets
20% replacement			
50% replacement			
100% replacement			

RESOLUTION 23/05

ON ESTABLISHING A PROGRAMME FOR TRANSHIPMENT BY LARGE-SCALE FISHING VESSELS

Keyword: transshipment

The Indian Ocean Tuna Commission (IOTC),

TAKING ACCOUNT of the need to combat illegal, unregulated and unreported (IUU) fishing activities because they undermine the effectiveness of the Conservation and Management Measures (CMMs) already adopted by the IOTC;

EXPRESSING GRAVE CONCERN that organized tuna laundering operations have been conducted and a significant amount of catches by IUU fishing vessels have been transhipped under the names of duly licensed fishing vessels;

IN VIEW THEREFORE OF THE NEED to ensure the monitoring of the transshipment activities by large-scale longline vessels in the IOTC area of competence, including the control of their landings;

TAKING ACCOUNT of the need to collect catch data of such large scale long-line tuna vessels to improve the scientific assessments of those stocks;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

PART 1. GENERAL RULES

1. Except under the programme to monitor transshipments at sea provided below in paragraph 4, all transshipment operations of tuna and tuna-like species and sharks caught in association with tuna and tuna-like fisheries in the IOTC area of competence (tuna and tuna like species and sharks) shall take place in port¹.
2. The Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall take the necessary measures to ensure that their flag large-scale tuna vessels² (LSTVs) comply with the obligations in Annex I when transshipping in port.
3. Transshipment operations within the Maldives between pole and line fishing vessels, and collector vessels flagged in the Maldives and registered on the IOTC Record of Authorized Vessels shall be exempted from the data reporting requirements specified in Annex I and Annex III. Such transshipment operations shall conform to the criteria provided in Annex II of this Resolution.

PART 2. PROGRAMME TO MONITOR TRANSHIPMENTS

4. The Commission hereby establishes a programme to monitor transshipment which applies only to largescale tuna longline fishing vessels (hereafter referred to as the "LSTLVs") and to carrier vessels authorised to receive transshipments from these vessels. No at-sea transshipment of tuna and tuna-like species and sharks by

¹ Port includes offshore terminals and other installations for landing, transshipping, packaging, processing, refuelling or resupplying (as defined by the FAO Port State Measures Agreement).

² Large-Scale Tuna Vessels (LSTV) – means fishing vessels targeting tuna and tuna like species in the IOTC area of competence that are 24 metres length overall and above and are on the IOTC Record of Authorised Vessels (IOTC RAV).

fishing vessels other than LSTLVs shall be allowed. The Commission shall review and, as appropriate, revise this Resolution.

5. This Resolution does not apply to transshipments outside the IOTC area of competence where such transshipment is subject to a comparable monitoring program established by another regional fisheries management organization. However, the information on tuna and tuna like species and sharks being transhipped outside the IOTC area of competence shall be provided to the IOTC Secretariat as required in paragraph 19 and paragraph 3 of Annex I.
6. The CPCs that flag LSTLVs shall determine whether or not to authorise their LSTLVs to tranship at sea. However, if the flag CPC authorises the at-sea transshipment by its flag LSTLVs, such transshipment shall be conducted in accordance with the procedures defined in Parts 4 and 5, and Annex III and Annex IV of this Resolution.

PART 3. RECORD OF CARRIER VESSELS AUTHORISED TO RECEIVE TRANSHIPMENTS-IN THE IOTC AREA OF COMPETENCE

7. The Commission shall establish and maintain an IOTC Record of Carrier Vessels authorised to receive tuna and tuna-like species and sharks from LSTLVs in the IOTC area of competence (IOTC RCV). For the purposes of this Resolution, carrier vessels not entered on the Record are deemed not to be authorised to receive tuna and tuna-like species and sharks.
8. Each CPC shall submit, electronically where possible, to the IOTC Executive Secretary the list of the carrier vessels that are authorised to receive transshipments from its LSTLVs in the IOTC area of competence. This list shall include the following information:
 - a. flag of the vessel;
 - b. name of vessel, register number;
 - c. IMO number;
 - d. previous name (if any);
 - e. previous flag (if any);
 - f. previous details of deletion from other registries (if any);
 - g. International Radio Call Sign;
 - h. type of vessels, length, gross tonnage (GT) and carrying capacity;
 - i. name and address of owner(s) and operator(s);
 - j. time period authorised for transshipping;
 - k. type of transshipment authorised (i.e., in port and/or at sea);
 - l. Colour photographs of the vessel showing:
 - the starboard side and portside of the vessel, each showing the whole structure

- the bow of the vessel
 - at least one of the photographs clearly showing at least one of the external markings specified in 8(b) or 8(c).
9. Each CPC shall promptly notify the IOTC Executive Secretary, after the establishment of the initial IOTC RCV, of any addition to, any deletion from and/or any modification of the IOTC RCV, at any time such changes occur.
10. The IOTC Executive Secretary shall maintain the IOTC RCV and take measures to ensure publicity of the RCV through electronic means, including placing it on the IOTC website, in a manner consistent with confidentiality requirements notified by CPCs for their flag vessels.
11. Carrier vessels authorised for transshipment shall be required to install and operate a Vessel Monitoring System (VMS).

Port Inspection

12. Consistent with Resolution 16/11 on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing, port State CPCs should prioritize inspection in port of (a) carrier vessels whose AIS/VMS signals disappear under suspicious circumstances and without explanation and/or indicate dubious movements, and (b) carrier vessels not entered into the IOTC Record of Carrier Vessels to verify tuna and tuna-like species and sharks are not on board. Inspection of transshipment activities in port should involve the monitoring of the entire transshipment process and include a cross check of transhipped amounts by species as reported in the fishing vessel's logbook and review of the prior authorization to tranship in port issued by the flag CPC to the fishing vessel.

Separation of cargo

13. Carrier vessels authorized to receive transshipments of tuna and tuna-like species and sharks shall be required to separate and stow transhipped fish by fishing vessel and develop a stowage plan to show the locations in the hold of the quantities by vessel and major species (i.e. bigeye, yellowfin and albacore) and desirably by other species. The carrier vessel master shall submit the stowage plan to inspectors, if requested.

PART 4. AT-SEA TRANSHIPMENT

14. Transshipments by LSTLVs in waters under the jurisdiction of the CPCs are subject to prior authorisation from the coastal State concerned. CPCs shall take the necessary measures to ensure that LSTLVs flying their flag comply with the following conditions:

Flag State Authorization

15. LSTLVs shall not be authorised to tranship at sea, unless they have obtained prior authorisation from their flag CPC.

Notification obligations

Fishing vessel:

16. To receive the prior authorisation referenced in paragraph 15, the master and/or owner of the LSTLV must notify the following information to its flag CPC authorities at least 24 hours in advance of an intended

transshipment:

- a. name of the LSTLV, its number in the IOTC RAV, and its IMO number, if issued;
 - b. name of the carrier vessel, its number in the IOTC RCV, its IMO number, and the product to be transhipped;
 - c. tonnage by product to be transhipped;
 - d. date and location of transshipment;
 - e. geographic location of the catches.
17. The master and/or owner of the LSTLV concerned shall complete and transmit to its flag CPC, not later than 5 working days after the transshipment, the IOTC Transshipment Declaration, along with its number in the IOTC RAV, in accordance with the format in Annex III.

Receiving carrier vessel:

18. Before starting transshipment, the master of the receiving carrier vessel shall confirm that the LSTLV concerned is participating in the IOTC programme to monitor transshipment at sea (which includes payment of the fee required in paragraph 13 of Annex IV) and has obtained the prior authorisation from their flag State referred to in paragraph 15. The master of the receiving carrier vessel shall not start transshipment without such confirmation.
19. The master of the receiving carrier vessel shall complete and transmit the IOTC transshipment declaration to the IOTC Secretariat and the flag CPC of the LSTLV, along with its number in the IOTC RCV within 24 hours of the completion of the transshipment.
20. The master of the receiving carrier vessel shall, 48 hours before the first point of landing, transmit an IOTC transshipment declaration, along with its number in the IOTC RCV to the competent authorities of the State where the landing takes place.
21. The Commission shall consider the introduction of supply declaration as follows at its annual Session in 2024 taking into account the effectiveness of such supply declaration introduced in ICCAT since 2022.
- a. Anytime a carrier vessel on the IOTC RCV provides supply services to another vessel at sea in the IOTC area of competence, the master of the carrier vessel completes a supply declaration in accordance with the format set out in Annex V and send it by electronic means to its flag State and the IOTC Secretariat 24 hours in advance of the activity.
 - b. A separate supply declaration is not required when the supply activity is conducted in association with transshipment that is monitored by an IOTC Regional Observer.

Availability of Reports

22. The IOTC Secretariat shall promptly publish the documents received pursuant to paragraph 19 in the secure part of the IOTC website for the facilitation of implementation of Resolution 16/11 *On Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*.

Regional Observer Programme:

23. Each CPC shall ensure that all carrier vessels transshipping at sea have on board an IOTC observer, in accordance with the IOTC Regional Observer Programme in Annex IV. The IOTC observer shall observe the compliance with this Resolution, and notably that the transhipped quantities are consistent with the reported catch in the IOTC transshipment declaration.
24. CPCs shall prohibit vessels from commencing or continuing at-sea transshipping in the IOTC area of competence without an IOTC regional observer on board, except in cases of “force majeure” duly notified to the IOTC Secretariat. In those situations of “force majeure”, CPCs should also notify to the IOTC Secretariat the alternative monitoring, control and surveillance measures put in place.
25. In the case of the seventeen (17) Indonesian wooden carrier vessels listed on the IOTC Record of Authorised Vessels and listed in Annex VI, a national observer programme may be used in place of an observer from the regional observer programme for Indonesian wooden carrier vessels listed on the IOTC Record of Authorised Vessels. National observers shall be trained to at least one tuna-RFMO regional observer programme standards and will carry out all of the functions of the regional observer, including provision of all data as required by the IOTC regional observer programme and the reports equivalent to those prepared by the ROP Contractor. This provision shall only apply to the seventeen (17) specific wooden carrier vessels referenced in this paragraph, as indicated in Annex VI. Those wooden carrier vessels shall only be authorized to participate in transshipment operations with fishing vessels flagged to Indonesia. Replacement of those wooden carrier vessels are only permitted if the material of substitute vessel shall remain wooden and the carrying capacity or fish hold volume not larger than the vessel(s) being replaced. In such case, the authorisation of the replaced wooden vessel shall be immediately revoked.
26. The provisions in paragraph 25 will be rescheduled as a two-year continuation of the pilot that was started in 2017 and will continue in consultation with the IOTC Secretariat and associated experts. The continuation of the pilot project will be started in 2023. The pilot project is aiming to be integrated into the ROP by 2025, thus it would be the last extension period for the pilot project. The observer report shall be submitted regularly to the Secretariat, no later than 30 days after the end of the observer deployment. The observer shall observe the compliance requirement of the carrier and fishing vessels and indicate it in the report. The results of the project, including data collection, reports and the effectiveness of the project shall be examined annually by the IOTC Compliance Committee on the basis of a report prepared by Indonesia and analysis by the IOTC Secretariat through an independent assessment. This review shall include whether the programme offers the same level of assurances as those provided by the ROP. It shall also explore the feasibility of obtaining an IMO number for the vessels concerned. The integration of the project into the ROP shall be subject to a new decision of the Commission. Information and data collected by Indonesia as part of the pilot project relating to the transshipment of southern bluefin tuna will be shared with the Commission for the Conservation of Southern Bluefin Tuna, consistent with existing IOTC sharing arrangements under the CCBST/ IOTC MOU.

PART 5. GENERAL PROVISIONS

27. To ensure the effectiveness of the IOTC Conservation and Management Measures (CMMs) pertaining to species covered by the Statistical Document Program:
 - a. in validating the Statistical Document, flag CPCs of LSTLVs shall ensure that transshipments are consistent with the reported catch amount by each LSTLV;
 - b. the flag CPCs of LSTLVs shall validate the Statistical Documents for the transhipped fish, after confirming that the transshipment was conducted in accordance with this Resolution and this confirmation shall be based on the information obtained through the IOTC ROP;

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- c. CPCs shall require that the species covered by the Statistical Document Program caught by LSTLVs in the IOTC area of competence, when imported into the territory of a CPC, be accompanied by statistical documents validated for the vessels on the IOTC record and a copy of the IOTC transshipment declaration.
28. The CPCs shall report annually before 15 September to the IOTC Executive Secretary:
- a. the quantities by species transhipped by their flag vessels during the previous calendar year;
 - b. the list of the LSTLVs registered in the IOTC RAV which have transhipped during the previous calendar year;
 - c. a comprehensive report assessing the content and conclusions of the reports of the observers assigned to carrier vessels which have received transshipment from their flag LSTLVs during the previous calendar year.
29. All tuna and tuna-like species and sharks landed or imported either unprocessed or after having been processed on board and which are transhipped, shall be accompanied by the IOTC transshipment declaration until the first sale has taken place.
30. Each year, the IOTC Executive Secretary shall present a report on the implementation of this Resolution to the annual meeting of the Commission which shall review compliance with this Resolution.
31. The IOTC Secretariat shall, when providing CPCs with copies of all raw data, summaries and reports in accordance with paragraph 10 of Annex IV to this Resolution, also indicate evidence indicating possible violation of IOTC CMMs by LSTLVs/carrier vessels flagged to that CPC. Upon receiving such evidence, each CPC shall investigate the cases and report the results of the investigation back to the IOTC Secretariat three months prior to the annual Session of the IOTC Compliance Committee. The IOTC Secretariat shall circulate among CPCs the list of names and flags of the LSTLVs/Carrier vessels that were involved in such possible violations as well as the response of the flag CPCs 80 days prior to the annual Session of the IOTC Compliance Committee.
32. Resolution 22/02 *On establishing a programme for transshipment by large-scale fishing vessels* is superseded by this Resolution.

ANNEX I

CONDITIONS RELATING TO IN PORT TRANSHIPMENT

General

1. Transshipment operations in port may only be undertaken in accordance with the procedures detailed below:

Notification obligations

2. Fishing vessel:
 - 2.1. Prior to transshipping, the master of the LSTV must notify the following information to the port State authorities, at least 48 hours in advance:
 - a) the name of the LSTV, IMO number and its number in the IOTC record of fishing vessels;
 - b) the name of the carrier vessel, IMO number and the product to be transhipped;
 - c) the tonnage by product to be transhipped;
 - d) the date and location of transshipment;
 - e) the geographic location of the tuna and tuna-like species and sharks catches.
 - 2.2. The master of a LSTV shall, at the time of the transshipment, inform its flag State of the following:
 - a) the products and quantities involved;
 - b) the date and place of the transshipment;
 - c) the name, registration number, IMO number and flag of the receiving carrier vessel;
 - d) the geographic location of the tuna and tuna-like species and sharks catches.
 - 2.3. The master of the LSTV concerned shall complete and transmit to its flag State the IOTC transshipment declaration, along with its number in the IOTC Record of Authorised Vessels, in the format set out in Annex III not later than 15 days after the transshipment.
3. Receiving vessel:

Not later than 24 hours before the beginning and at the end of the transshipment, the master of the receiving carrier vessel shall inform the port State authorities of the quantities of tuna and tuna-like species and sharks transhipped to his vessel, and complete and transmit the IOTC transshipment declaration, to the competent authorities and the IOTC Executive Secretary within 24 hours.

Landing State:

4. The master of the receiving carrier vessel shall, 48 hours before landing, complete and transmit an IOTC transshipment declaration, to the competent authorities of the landing State where the landing takes place.
5. The port State and the landing State referred to in the above paragraphs shall take the appropriate measures to verify the accuracy of the information received and shall cooperate with the flag CPC of the LSTV to ensure that landings are consistent with the reported catches amount of each vessel. This verification shall be carried out so that the vessel suffers the minimum interference and inconvenience, and that degradation of the fish is avoided.
6. Each flag CPC of the LSTVs shall include in its annual Implementation Report the details on the transshipments by its vessels.
 - 6.1. the quantities by species transhipped by their flag vessels during the previous calendar year;
 - 6.2. the list of the LSTVs registered in the IOTC RAV which have transhipped during the previous calendar year.

ANNEX II

CONDITIONS RELATING TO TRANSHIPMENTS BETWEEN MALDIVIAN COLLECTOR VESSELS AND POLE AND LINE FISHING VESSELS

General requirements

1. The pole and line fishing vessel(s) involved shall be flagged in the Maldives and shall have a valid license to fish issued by the competent authorities of the Maldives.
2. The collector vessel(s) involved shall be flagged in the Maldives and shall have a valid license to operate issued by the competent authorities of the Maldives.
3. The vessel(s) involved shall not be authorized to fish or engage in fisheries related activities outside the area of national jurisdiction of the Maldives.
4. Transshipment operation shall only take place inside the atolls within the area of national jurisdiction of the Maldives.
5. The Collector Vessel(s) involved must be equipped and tracked by the competent authorities of the Maldives via a functional vessel monitoring system and shall also be equipped with an electronic observer system suitable for monitoring the transshipment activity.
6. The fishing vessel(s) involved in the transshipment operation should be tracked by the competent authorities of the Maldives via a functional vessel monitoring system as required by Resolution 15/03 *On the vessel monitoring system (VMS) programme*.

Reporting requirements

7. The flag State shall report in its annual Implementation Report the details on such transshipments by its vessels.
8. The data recording and reporting requirements set forth by the competent authorities of the Maldives for shore-based reporting or recording requirements shall also be applicable to transshipment operations between Maldivian collector vessels and pole and line fishing vessels.

ANNEX III
IOTC TRANSHIPMENT DECLARATION

Carrier Vessel	Fishing Vessel
Name of the Vessel and Radio Call Sign: Flag: IMO number: Flag State license number: National Register Number, if available: IOTC Register Number, if available:	Name of the Vessel and Radio Call Sign: Flag: IMO number: Flag State license number: National Register Number, if available: IOTC Register Number, if available:

	Day	Month	Hour	Year		Agent's name:	Master's name of LSTV:	Master's name of Carrier:
Departure								
Return								
Transhipment								

Indicate the weight in kilograms or the unit used (e.g. box, basket) and the landed weight in kilograms of this unit: _____ kilograms

LOCATION OF TRANSHIPMENT

Species	Port	Sea	Type of product							
			Whole	Gutted	Headed	Filleted				

If transhipment effected at sea, IOTC Observer Name and Signature:

ANNEX IV

IOTC REGIONAL OBSERVER PROGRAMME

1. Each CPC shall require carrier vessels included in the IOTC Record of Carrier Vessels authorised to receive transhipments in the IOTC area of competence (RCV) and which tranship at sea, to carry an IOTC observer during each transhipment operation in the IOTC area of competence.
2. The IOTC Executive Secretary shall appoint the observers and shall place them on board the carrier vessels authorised to receive transhipments in the IOTC area of competence from LSTLVs flagged to CPCs that implement the IOTC Regional Observer Programme.

Designation of the observers

3. The designated observers shall have the following qualifications to accomplish their tasks:
 - a) sufficient experience to identify species and fishing gear;
 - b) satisfactory knowledge of the IOTC Conservation and Management Measures;
 - c) the ability to observe and record information accurately;
 - d) a satisfactory knowledge of the language of the flag of the vessel observed.

Obligations of the observer

4. Observers shall:
 - a) have completed the technical training required by the guidelines established by IOTC;
 - b) not be, to the extent possible, nationals of the flag State of the receiving carrier vessel;
 - c) be capable of performing the duties provided in paragraph 5;
 - d) be included in the list of observers maintained by the Secretariat;
 - e) not be a crew member of an LSTLV or an employee of an LSTLV company.
5. The observer tasks shall be as follows:
 - a) On the fishing vessel intending to tranship to the carrier vessel and before the transhipment takes place, the observer shall:
 - i. check the validity of the fishing vessel's authorisation or licence to fish tuna and tuna-like species and sharks in the IOTC area of competence;
 - ii. check and note the total quantity of catch on board, and the quantity to be transferred to the carrier vessel;
 - iii. check that the VMS is functioning and examine the logbook;
 - iv. verify whether any of the catch on board resulted from transfers from other vessels, and check documentation on such transfers;
 - v. in the case of an indication that there are any violations involving the fishing vessel, immediately report the violations to the carrier vessel's master,
 - vi. report the results of these duties on the fishing vessel in the observers report.
 - b) On the carrier vessel:

monitor the carrier vessel's compliance with the relevant Conservation and Management Measures adopted by the Commission and in particular the observers shall:

 - i. record and report upon the transhipment activities carried out;
 - ii. verify the position of the vessel when engaged in transhipping;

- iii. observe and estimate products transhipped;
 - iv. verify and record the name of the LSTLV concerned and its IOTC registration number;
 - v. verify the data contained in the transhipment declaration;
 - vi. certify the data contained in the transhipment declaration;
 - vii. countersign the transhipment declaration;
 - viii. issue a daily report of the carrier vessels transhipping activities;
 - ix. prepare a general report compiling the information collected in accordance with this paragraph and provide the master the opportunity to include therein any relevant information;
 - x. submit to the Executive Secretary the aforementioned general report within 20 days from the end of the period of observation;
 - xi. exercise any other functions as defined by the Commission.
6. Observers shall treat as confidential all information with respect to the fishing operations of the LSTLVs and of the LSTLV owners and accept this requirement in writing as a condition of appointment as an observer.
 7. 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.
 8. 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 provided in paragraph 9 of this programme.

Obligations of the flag States of carrier vessels

9. The responsibilities of the flag States of the carrier vessels and their masters in relation to observers shall include the following:
 - a) observers shall be allowed 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 provided in paragraph 5:
 - i. satellite navigation equipment;
 - ii. radar display viewing screens when in use; and
 - iii. electronic means of communication.
 - c) observers shall be provided accommodation, 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.
10. The Executive Secretary, in a manner consistent with any applicable confidentiality requirements, shall provide to the flag State of the carrier vessel and to the flag CPC of the LSTLV, copies of all available raw data, summaries, and reports pertaining to the trip four months prior to the next annual Session of the IOTC Compliance Committee.

Obligations of LSTLV during transhipment

11. Observers shall be allowed to visit the fishing vessel, if weather conditions permit it, and access shall be granted to personnel and areas of the vessel necessary to carry out their duties provided in paragraph 5.



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12. The Executive Secretary shall submit the observer reports to the IOTC Compliance Committee and to the IOTC Scientific Committee.

Observer fees

13. The costs of implementing this program shall be financed by the flag CPCs of LSTLVs wishing to engage in transshipment operations. The fee shall be calculated on the basis of the total costs of the program. This fee shall be paid into a special account of the Secretariat and the Executive Secretary shall manage the account for implementing the program.
14. No LSTLV may participate in the at-sea transshipment program unless the fees required under paragraph 13, have been paid.



ANNEX V

IOTC SUPPLY DECLARATION

Carrier (supply donor) Vessel:		Receiving vessel:
Name:		Name:
IOTC Register No.		IOTC Register No. (24 m or over)
		National registration number (less than 24 m or non-IOTC vessel)
IMO number, if available		IMO number, if available
International Radio Call Sign		International Radio Call Sign
Current Flag:		Current Flag:
Date		
Latitude		
Longitude		
Goods supplied:		remarks (if any)
- Fuel	<input type="checkbox"/>	
- Bait	<input type="checkbox"/>	
- Victuals	<input type="checkbox"/>	
- Spare parts	<input type="checkbox"/>	
- Medical supplies	<input type="checkbox"/>	
- Passengers/Crew	<input type="checkbox"/>	
- Other (specify)	<input type="checkbox"/>	

ANNEX VI
INDONESIAN CARRIER VESSELS AUTHORISED TO TRANSHIP AT SEA

No.	Name of Wooden Carrier	Vessel Gross Tonnage
1	BANDAR NELAYAN 2017	300
2	PERMATA TUNA WIJAYA 01	298
3	HIROYOSHI - 17	171
4	KILAT MAJU JAYA - 21	197
5	BANDAR NELAYAN 271	242
6	PERINTIS JAYA - 36	99
7	NUSANTARA JAYA -12	149
8	NAGA MAS PERKASA 89	146
9	BANDAR NELAYAN 519	196
10	MUTIARA 36	294
11	BAHARI - 116	167
12	GOLDEN TUNA 99	199
13	BAHARI NUSANTARA	136
14	BANDAR NELAYAN 2018	290
15	BANDAR NELAYAN 308	244
16	BANDAR NELAYAN 2023	295
17	BAHARI 89	163

RESOLUTION 23/06 ON THE CONSERVATION OF CETACEANS

The Indian Ocean Tuna Commission (IOTC),

RECOGNIZING Resolution 12/01 *On the Implementation of the Precautionary Approach* calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to apply the precautionary approach when managing tuna and tuna-like species in accordance with Article V of the United Nations Fish Stocks Agreement;

RECOGNIZING the ecological and cultural significance of cetaceans in the Indian Ocean;

MINDFUL that cetaceans are particularly vulnerable to exploitation including from fishing;

CONCERNED about the potential impacts of fishing operations targeting tuna and tuna-like species on the sustainability of cetaceans;

NOTING that under Resolution 15/02 *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPC's)*, paragraph 3: 'CPCs are also encouraged to record and provide data on species other than sharks and tunas taken as bycatch';

CONCERNED by the lack of accurate and complete data collection and reporting to the IOTC Secretariat concerning interactions and mortalities of non-target species with fishing vessels in the IOTC area of competence;

FURTHER NOTING that the IOTC Working Party on Ecosystems and Bycatch (WPEB) noted paper IOTC-2011-WPEB07-08 which reviewed the status of the information available on non-target species associated with IOTC fisheries; recommended that data on marine mammal interactions with IOTC fisheries are collected and reported by CPCs to the IOTC Secretariat;

FURTHER NOTING that the IOTC Working Party on Ecosystem and Bycatch (WPEB) noted the paper IOTC-2020-WPEB16-22 that cetacean populations in the Indian Ocean may have been reduced to a low level, perhaps <20%, of their original levels but that the use of an aggregated approach was problematic, and that it is not possible to fully evaluate the change of population abundance without a species specific analysis; recalled the importance of cetacean bycatch monitoring and the collection of species-specific bycatch data;

RECOGNIZING that Recommendation 12/15 *On the Best Available Science* recommends CPCs take all measures to improve the collection and submission of data to the IOTC Secretariat, including on bycatch;

RECALLING that IOTC in 2022 noted document IOTC-2022-S26-09 which was produced concerning lack of data available on cetaceans at the IOTC, and therefore, to improve the information available to the Scientific Committee, also recognizing the common will of FAO and the International Whaling Commission (IWC) is to strengthen the monitoring and assessment of cetacean bycatch and the implementation of proper and effective conservation and management measures to reduce it;

NOTING that the 19th Regular Session of the Western and Central Pacific Fisheries Commission in 2022 adopted the Graphics for Best Practices for the Safe Handling and Release of Cetaceans;

RECOGNIZING that the 25th Session of the IOTC Scientific Committee in 2022 recommended that the Commission note the management advice developed for cetaceans noting the number of fisheries interactions involving cetaceans is

highly uncertain and should be addressed as a matter of priority and available evidence indicates considerable risk to cetaceans in the Indian Ocean, particularly from tuna drift gillnets;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. This measure shall apply to all fishing vessels flying the flag of a CPC and on the IOTC Record of Fishing Vessels or authorised to fish tuna and tuna-like species managed in the IOTC area of competence. The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective EEZ.
2. CPCs shall prohibit their flagged vessels from intentionally setting a purse seine net around a cetacean in the IOTC area of competence, if the animal is sighted prior to the commencement of the set.
3. CPCs shall require that, in the event that a cetacean is unintentionally encircled in a purse seine net, or captured or entangled in the gillnets the master of the vessels shall:
 - a) take all reasonable steps to ensure the safe release of the cetacean, while taking into consideration the safety of the crew. These steps shall include following the best practice guidelines for the safe release and handling of cetaceans developed by the IOTC Scientific Committee;
 - b) report the incident to the relevant authority of the flag State, with the following information:
 - i. the species (if known);
 - ii. the number of individuals;
 - iii. a short description of the interaction, including details of how and why the interaction occurred and the gear type;
 - iv. the location of the encirclement or entanglement (if occurred);
 - v. the steps taken to ensure safe release (if encirclement or entanglement occurred);
 - vi. an assessment of the life status of the animal on release, including whether the cetacean was released alive but subsequently died.
4. CPCs using other gear types fishing for tuna and tuna-like species associated with cetaceans shall report all interactions with cetaceans to the relevant authority of the flag State and include all the information outlined in paragraph 3b(i–vi).
5. Notwithstanding paragraph 1, in the event of any interactions with cetaceans occurred in artisanal fishing, the CPCs shall encourage their vessels immediately release the animal to the extent possible and report the information to relevant authority of the flag State as outlined in paragraph 3b) or in accordance with Resolution 15/01 and 15/02 (or any subsequent revisions).
6. CPCs shall ensure that only non-entangling material and designs shall be used for drifting Fish Aggregating Devices (DFADs) to reduce the incidence of entanglement.
7. The Commission requests that the IOTC Scientific Committee develop best practice guidelines for the safe release and handling of encircled cetaceans, taking into account those developed in other Regional Fisheries

Management Organisations, including the Western and Central Pacific Fisheries Commission, and that these guidelines be submitted to the Commission meeting for endorsement by 2025 at the latest.

8. CPCs shall endeavour to ensure that fishermen are aware of and use proper mitigation, identification, handling and releasing techniques and keep on board all necessary equipment for the safe release of cetaceans before the guidelines mentioned in paragraph 6 are endorsed.
9. CPCs shall report the information and data collected under paragraph 3(b) and paragraph 4, through logbooks, or when an observer is onboard through observer programs, and provide to the IOTC Secretariat by 30 June of the following year and according to the timelines specified in Resolution 15/02 (or any subsequent revision). CPCs are encouraged to use an Electronic Monitoring System (EMS) to enhance the data collection required in this Resolution.
10. CPCs shall report, in accordance with Article X of the IOTC Agreement, any instances in which cetaceans have been encircled or caught by the purse seine nets or entangled in gillnets or in Fish Aggregating Devices of their flagged vessels.
11. For CPCs having national and state legislation for protecting these species are encouraged to provide the information for the IOTC Scientific Committee, Compliance Committee and Working Party on the Implementation of Conservation and Management Measures consideration.
12. The IOTC Scientific Committee shall review information on the status of cetaceans in the IOTC area of competence and provide recommendation or advice to the Commission no later than 2025 to identify appropriate measures that Commission shall take to mitigate negative effects of the interactions with cetaceans by the IOTC fisheries.
13. Resolution 13/04 *On the conservation of cetaceans* is superseded by this Resolution.

RESOLUTION 23/07
ON REDUCING THE INCIDENTAL BYCATCH OF SEABIRDS IN LONGLINE FISHERIES

The Indian Ocean Tuna Commission (IOTC),

RECALLING Resolution 12/06 *On reducing incidental bycatch of seabirds in longline fisheries*;

RECOGNIZING the need to strengthen mechanisms to protect seabirds in the Indian Ocean and to harmonise such mechanisms across tuna RFMOs;

NOTING the adoption of optional hook-shielding measures by the WCPFC in 2018;

TAKING INTO ACCOUNT the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds);

NOTING the previous recommendations of the IOTC Scientific Committee, in agreement with the IOTC Working Party on Ecosystems and Bycatch (WPEB) on measures to mitigate seabird interactions as outlined in their 2007, 2009, 2011, 2016 and 2022 Reports;

RECOGNIZING that in 2022 the Scientific Committee recommended that the Commission consider including hook-shielding devices as an additional option for seabird bycatch mitigation measures in Resolution 12/06;

ACKNOWLEDGING that to date some IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as “CPCs”) have identified the need for, and have either completed or are near finalising, their National Plan of Action on Seabirds;

RECOGNIZING the global concern that some species of seabirds, notably albatrosses and petrels, are threatened with extinction;

NOTING that the Agreement on the Conservation of Albatrosses and Petrels, which opened for signatures at Canberra on 19 June 2001, has entered into force and continues to update best-practice mitigation advice;

NOTING that the ultimate aim of the IOTC and CPCs is to achieve a zero bycatch of seabirds for fisheries under the purview of the IOTC, especially threatened albatrosses and petrel species in longline fisheries;

BEARING in mind studies undertaken in other longline tuna fisheries, demonstrating the economic benefit of measures to mitigate incidental bycatch of seabirds, by significantly increasing catches of targeted species;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. CPCs shall record data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 22/04 and report these annually. Observers shall to the extent possible take photographs of seabirds caught by fishing vessels and transmit them to national seabird experts or to the IOTC Secretariat, for confirmation of identification.
2. CPCs that have not fully implemented the provisions of the IOTC Regional Observer Scheme outlined in paragraph 3 of Resolution 22/04 shall report seabird incidental bycatch through logbooks, including details of species, if possible.

3. CPCs shall provide to the Commission as part of their annual reports, information on how they are implementing this measure.
4. CPCs shall seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons, and fisheries through the use of effective mitigation measures, while giving due consideration to the safety of crew members and the practicability of mitigation measures.
5. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the three mitigation measures in Table 1 or, alternatively, use hook-shielding devices (as described in Table 2) as a stand-alone measure. These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.
6. Mitigation measures used pursuant to paragraph 5 shall conform to the minimum technical standards for these measures, as shown in Table 1 and Table 2.
7. The design and deployment for bird scaring lines should also meet the additional specifications provided in Annex I.
8. The Scientific Committee will continue to review and make recommendations to the Commission on advancements and best practice in seabird bycatch mitigation as they become available. This will include, by 2024 at the latest, developing advice to the Commission on best practice branch line weighting.
9. CPCs who elect to use hook-shielding devices as a mitigation method are encouraged to share their experience with other CPCs, as appropriate, through the Working Party on Ecosystems and Bycatch.
10. The use of hook-shielding devices must be consistent with all other IOTC Resolutions.
11. This Resolution shall enter into force on 1 July 2024.
12. As of 1 July 2024, the Resolution 12/06 *On reducing incidental bycatch of seabirds in longline fisheries* is superseded by this Resolution.

Table 1. Mitigation measures

Mitigation	Description	Specification
Night setting with minimum deck lighting	No setting between nautical dawn and before nautical dusk. Deck lighting to be kept to a minimum.	Nautical dusk and nautical dawn are defined as set out in the Nautical Almanac tables for relevant latitude, local time and date. Minimum deck lighting should not breach minimum standards for safety and navigation.
Bird-scaring lines (Tori lines)	Bird-scaring lines shall be deployed during the entire longline setting to deter birds from approaching the branch line.	<p>For vessels greater than or equal to 35 m:</p> <ul style="list-style-type: none"> • Deploy at least 1 bird-scaring line. Where practical, vessels are encouraged to use a second tori pole and bird scaring line at times of high bird abundance or activity; both tori lines should be deployed simultaneously, one on each side of the line being set. • Aerial extent of bird-scaring lines must be greater than or equal to 100 m. • Long streamers of sufficient length to reach the sea surface in calm conditions must be used. • Long streamers must be at intervals of no more than 5m. <p>For vessels less than 35 m:</p> <ul style="list-style-type: none"> • Deploy at least 1 bird-scaring line. • Aerial extent must be greater than or equal to 75 m. • Long and/or short (but greater than 1 m in length) streamers must be used and placed at intervals as follows: <ul style="list-style-type: none"> ○ Short: intervals of no more than 2 m. ○ Long: intervals of no more than 5 m for the first 55 m of bird scaring line. <p>Additional design and deployment guidelines for bird-scaring lines are provided in Annex I of this Resolution.</p>
Line weighting	Line weights to be deployed on the snood prior to setting.	Greater than a total of 45 g attached within 1 m of the hook or; Greater than a total of 60 g attached within 3.5 m of the hook or; Greater than a total of 98 g weight attached within 4 m of the hook.

Table 2. Hook-shielding devices

Mitigation	Description	Specification
Hook-shielding devices ³	Hook-shielding devices, listed by the Parties to the Agreement on the Conservation of Albatross and Petrels as Best Practice Advice, that encase the point and barb of baited hooks to prevent seabird bycatch during setting shall be used.	<p>Hook-shielding devices that comply with the following performance characteristics. Devices must:</p> <ul style="list-style-type: none"> • encase the point and barb of the hook until it reaches a depth of at least 10 m or has been immersed for at least 10 minutes; • meet current minimum standards for branch line weighting, as follows: greater than a total of 45 g attached within 1 m of the hook or; greater than a total of 60 g attached within 3.5 m of the hook or; greater than a total of 98 g weight attached within 4 m of the hook. • be designed to be retained on the fishing gear rather than lost.

³ Hook-shielding devices can be used as a stand-alone measure, subject to meeting line weighting requirements.

ANNEX I

SUPPLEMENTAL GUIDELINES FOR DESIGN AND DEPLOYMENT OF TORI LINES

Preamble

Minimum technical standards for deployment of tori lines are found in Table 1 of this Resolution, and are not repeated here. These supplemental guidelines are designed to assist in the preparation and implementation of tori line regulations for longline vessels. While these guidelines are relatively explicit, improvement in tori line effectiveness through experimentation is encouraged, within the requirements of Table 1 in the Resolution. The guidelines take into account environmental and operational variables such as weather conditions, setting speed and ship size, all of which influence tori line performance and design in protecting baits from birds. Tori line design and use may change to take account of these variables provided that line performance is not compromised. On-going improvement in tori line design is envisaged and consequently review of these guidelines should be undertaken in the future.

Tori line design (see Figure 1)

1. An appropriate towed device on the section of the tori line in the water can improve the aerial extension.
2. The above water section of the line should be sufficiently light that its movement is unpredictable to avoid habituation by birds and sufficiently heavy to avoid deflection of the line by wind.
3. The line is best attached to the vessel with a robust barrel swivel to reduce tangling of the line.
4. The streamers should be made of material that is conspicuous and produces an unpredictable lively action (e.g. strong fine line sheathed in red polyurethane tubing) suspended from a robust three-way swivel (that again reduces tangles) attached to the tori line.
5. Each streamer should consist of two or more strands.
6. Each streamer pair should be detachable by means of a clip so that line stowage is more efficient.

Deployment of tori lines

1. The line should be suspended from a pole affixed to the vessel. The tori pole should be set as high as possible so that the line protects bait a good distance astern of the vessel and will not tangle with fishing gear. Greater pole height provides greater bait protection. For example, a height of around 7 m above the water line can give about 100 m of bait protection.
2. If vessels use only one tori line it should be set to windward of sinking baits. If baited hooks are set outboard of the wake, the streamer line attachment point to the vessel should be positioned several meters outboard of the side of the vessel that baits are deployed. If vessels use two tori lines, baited hooks should be deployed within the area bounded by the two tori lines.
3. Deployment of multiple tori lines is encouraged to provide even greater protection of baits from birds.
4. Because there is the potential for line breakage and tangling, spare tori lines should be carried onboard to replace damaged lines and to ensure fishing operations can continue uninterrupted. Breakaways can be incorporated into the tori line to minimize safety and operational problems should a longline float foul or tangle with the in-water extent of a streamer line.
5. When fishers use a bait casting machine (BCM), they must ensure coordination of tori line and machine by: i) ensuring the BCM throws directly under the tori line protection, and ii) when using a BCM (or multiple BCMs) that allows throwing to both port and starboard, two tori lines should be used.
6. When casting branchline by hand, fishers should ensure that the baited hooks and coiled branchline sections are cast under the tori line protection, avoiding the propeller turbulence which may slow the sink rate.
7. Fishers are encouraged to install manual, electric or hydraulic winches to improve ease of deployment and retrieval of tori lines.

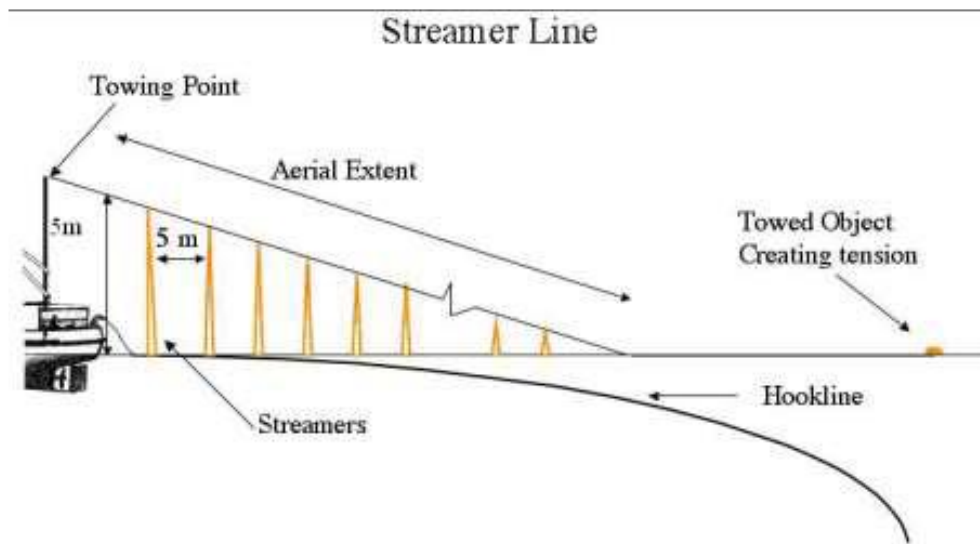


Figure 1. Diagram of Bird Scaring Streamer Line.

RESOLUTION 23/08 ON ELECTRONIC MONITORING STANDARDS FOR IOTC FISHERIES

Keywords: *Electronic Monitoring, Regional observer scheme, Minimum data requirements*

The Indian Ocean Tuna Commission (IOTC):

RECALLING the IOTC's responsibility to conserve and manage tuna and tuna-like species in the Indian Ocean.

EMPHASISING the importance of collecting sufficient verified catch data and effort and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence to enable the Scientific Committee (SC) to provide the Commission with scientific assessments, advice and recommendations.

RECALLING the first Resolution (11/04) on a Regional Observer Scheme (ROS) that mandated at least a 5% observer coverage for fleets for vessels equal to or greater than 24 meters length, and under 24 meters if they fish outside their Exclusive Economic Zone (EEZ).

NOTING the significant difficulties and challenges some CPC fisheries face in achieving IOTC mandated observer coverage rates, and the need to increase their observer coverage rates to improve data collection to allow estimates of total and species level bycatch.

FURTHER RECALLING that the 23rd session of the IOTC Scientific Committee expressed the concern at the low observer coverage level at 2.15% and that there is no coverage of the artisanal fleet, which comprise a large portion of catches taken in the Indian Ocean;

RECALLING Resolution 16/04 (on the implementation of a pilot project in view of promoting the regional observer scheme of IOTC) that required exploration of the potential for electronic observation to collect data required by the IOTC, and for the Scientific Committee to develop and propose minimum standards for the implementation of electronic observation (monitoring) systems.

RECALLING that the Commission endorsed, in principle, the Regional Observer Scheme Program Standards, including Minimum Standards Data Fields in 2019.

CONSIDERING Resolution 22/04 on Regional Observer Scheme (updating and replacing Resolution 11/04) which formally recognised the role of electronic monitoring systems (EMS) to contribute to and improve observer coverage and meet the ROS minimum mandatory data requirements. Resolution 22/04 requests that the IOTC SC (in collaboration with the Compliance Committee) develops and agrees electronic monitoring (EM) minimum standards for IOTC Fisheries (on minimum standards for the use of EMS for purse seine, longline, bait boat (pole and line), handline, and gillnet fleets) by 2023 at the latest.

NOTING the 2022 SC endorsed and recommended Commission adoption of: a) the EM terms and definitions; b) the EM Program Standards, and; c) the EM Data Standards. (IOTC-2022-SC25-R[E])

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement:

Electronic Monitoring terms and definitions

1. Terms and definitions pertaining to the implementation of EMS by CPCs, consistent with this resolution and resolution 22/04, are defined in Annex 1.

Electronic Monitoring Standards

2. The Commission shall:
 - a) implement a Regional Electronic Monitoring Program (REMP) as per the objectives, purpose and roles and responsibilities described in the IOTC EM Program Standard (Annex 1) by [1 July 2024].
 - b) upon the advice of the Scientific Committee and Compliance Committee, review the REMP, the EM Program Standard (Annex 1) and the EM System and Data Standards (Annex 2) after a period of 1 year from REMP implementation.
3. CPCs, who fish for species under the competence of the IOTC, and who choose to implement EMS in the IOTC area of competence to partially or fully meet the minimum ROS data requirements under Resolution 22/04 (or any subsequent revision), shall:
 - a) ensure that the implementation of their National EM Programs (NEMPs) and EM systems on their flagged vessels meets the requirements of the EM Program Standard (Annex 1) and EM System and Data Standards (Annex 2).
 - b) submit to the IOTC Secretariat by 1 July each year, a Vessel Monitoring Plan, that covers each vessel in their IOTC fishery utilizing EMS, outlining the EMS setup on each vessel, consistent with the requirements in the EM Program Standard (Annex 1) and making use of guidance in Annex 3 (Vessel Management Plan Guide).
 - c) submit to the IOTC Scientific Committee, as an annex to CPC National Reports to the SC, a fleet level summary of the Vessel Monitoring Plans (described in 3b) that specifies at a minimum:
 - i. The number of CPC flagged vessels implementing EM by gear/fishery type.
 - ii. The range of EMS configurations implemented within the fleet (including the numbers and placements of cameras for each configuration).
 - iii. A general description of EMS requirements placed upon vessel skippers/crews by the CPC government.
 - d) submit to the IOTC Secretariat by 1 July each year, a fleet level ROS data collection table, clearly specifying for each ROS minimum required data field as specified [[here](https://iotc.org/documents/ROS/DataStandards)⁴]:
 - i. The data field name and description
 - ii. The data field reporting requirement level (i.e, mandatory collection and reporting, mandatory reporting if collected, not mandatory etc)

⁴ <https://iotc.org/documents/ROS/DataStandards>

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- iii. the data collection method used to collect data for that field⁵,
 - iv. a brief description of the data collection method.
4. The IOTC Secretariat shall:
 - a) assist the Commission to establish and implement a REMP.
 - b) undertake roles as per EM Program Standard (Annex 1).
 5. The Scientific Committee shall, no later than 2024, review the ROS minimum required data fields to
 - a) identify any fields that are logistically difficult for EM and/or human observers to collect, respectively; and
 - b) provide advice and recommendations to the Commission on the need and use of those identified fields for scientific purposes, and their collection and reporting status (i.e. mandatory, non-mandatory etc.).
 - c) Discuss and provide advice to the Commission on the potential need to develop a separate EM ROS minimum data fields list.
 6. To support the implementation of the REMP and the work of the Scientific Committee referred to in paragraph 5, CPCs are encouraged to share relevant information, approaches and experiences, including those involving capacity building needs and any CPC-level knowledge exchange, with the Scientific Committee and Compliance Committee

⁵ Noting that for non-mandatory minimum data fields this may be “NA”

ANNEX 1

IOTC ELECTRONIC MONITORING PROGRAM STANDARDS

General

National/Regional data collection Programs using Electronic Monitoring Systems (EMS) that are certified as meeting the minimum standards of the Electronic Monitoring Program (EMP) as adopted by IOTC may be included within IOTC Regional Electronic Monitoring Program (REMP).

IOTC REMP shall be coordinated by the IOTC Secretariat.

Objectives

The objective of the IOTC REMP is to collect, via EMS, verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence and achieve the EM observer/review coverage to meet the requirements of IOTC Observer Resolution on Regional Observer Scheme.

Purpose:

The purpose of IOTC REMP is to allow CPCs to utilise EMS to collect data to assist CPCs in meeting the requirements of IOTC Observer Resolution on Regional Observer Scheme, including in situations where onboard observer coverage is low or non-existent.

The REMP aims to improve the quantity and quality of fishery data and the monitoring of IOTC fisheries and address gaps in the collection and verification of fishery data. The REMP may also in the future help CPCs meet the requirements of other IOTC Resolutions.

Scope:

The IOTC's REMP and associated minimum EM Program and EMS Data Standards (including this standard) apply only to IOTC CPCs who are developing or who have implemented EMS as a data collection tool to help meet, to the extent logistically possible, the requirements of the IOTC Observer Resolution on Regional Observer Scheme.

IOTC's REMP provides a framework for the development of EMS in the following IOTC fisheries:

- Purse-seine vessels over 24 meters length overall and under 24 meters LOA when fishing outside their EEZs,
- Longline vessels over 24 meters length overall and under 24 meters LOA when fishing outside their EEZs,
- Gillnet vessels over 24 meters length overall and under 24 meters LOA when fishing outside their EEZs,
- Pole and line vessels over 24 meters length overall and under 24 meters LOA when fishing outside their EEZs,
- Other gear types under 24 meters length overall (when fishing in the high seas).

IOTC's REMP or any National EMP, under IOTC's REMP, shall ensure that the data collected through EMS are documented and that all ROS minimum data standard requirements (e.g., "Mandatory Reporting"), if necessary complemented with any additional monitoring program (e.g., port sampling, biological sampling, etc.), are collected by EMS.

Definitions:

Electronic Technologies (ET): any electronic tool that is used to support fisheries-dependent data collection, both on shore and at sea, including electronic reporting (ER) and electronic monitoring (EM).

Electronic Reporting (ER): the use electronic systems (application, software, form or file) to record, store, receive and transmit fisheries data.

Monitoring: the requirement for the continuous collection of fishery-related data.

Electronic Monitoring (EM): the use of electronic devices to record fishing vessel's activities using video technology linked to a Global Position System (GPS), which may include sensors.

Electronic Monitoring System (EMS): the system comprising the vessel and shore-based components for collecting, transmitting and reviewing EM records, reporting of EM data and implementing an EM Program.

EM Program: a process administered by a national or regional administration that regulates the use of EMS on vessels to collect and verify fisheries data and information responsible through an implementation of an EMS in a defined area and/or fishery.

EM Program standards: the agreed standards, specifications and procedures (SSP) governing the establishment and operation of an EM Program, applicable to all components of the EMS.

EM data standards: the agreed subset of data requirements by the IOTC Regional Observer Scheme (ROS) that could be collected by the EMS.

EM records: Imagery, and possibly sensor, raw data linked to positional data collected by an EM equipment that can be reviewed to produce EM data.

EM data: processed/analysed data produced through review of EM records that conforms with the EM data standards.

EM equipment: a network of electronic cameras, sensors and data storage devices installed on a vessel and used to record the vessel's activities.

Vessel Monitoring Plan (VMP): The vessel's EM equipment characteristics and how the vessel's EM equipment is installed and configured to monitor fishing activities and meet the EM Program and EM Data Standards as required by the IOTC Regional Electronic Monitoring Program.

EM review: the review of EM records by EM observers/reviewers to produce EM data.

EM observer/reviewer: a person qualified to review EM records, store and produce EM data in accordance with the EM Data standards and analysis procedure.

EM review system: application software used by the EM observer to review the EM records and produce the processed EM data as per the EM data standards.

EM review center: local, national, or regional office facility where EM records are received and reviewed to produce and store EM data.

EM review provider: a third-party provider of EM review services to review EM records to produce EM data. The same third-party organization can provide both the EM equipment and EM review services but they can also be supplied by different providers.

EM installation coverage: the proportion of vessels by fleet that has EM equipment installed that is operational.

EM record coverage: the proportion of fishing effort for which EM records are collected by installed EM equipment.

EM observer/review coverage: the proportion of fishing effort for which EM records are reviewed to produce EM data and submitted to the IOTC.

EM service provider: a third-party provider of EM equipment (and/or system), technical and logistical services to maintain the EM equipment and monitor its proper functioning.

EM Systems

EMS should be approved and accredited by an appropriate IOTC body (e.g., IOTC WGEMS/WPDCS) or CPCs to ensure that the minimum standards of the REMP (and ROS) are met, including EM equipment installation (through an EM Vessel Monitoring Plan), collection of data consistent with ROS minimum data standards, EM records reviewed by accredited companies/organizations and independence of EMS are maintained. In case that CPCs approved the EMS the CPC shall submit to the IOTC Secretariat copies of each vessel's VMP and present to the Scientific Committee, as an annex to CPC National Reports to the Scientific Committee, a fleet level overview of the CPCs VMPs.

Data:

EM data submitted by Regional or National EMPs are subject to Resolution 12/02 *On data confidentiality policy and procedures* concerning the requirements for sharing data in the public domain (e.g., the level of stratification to apply in order to prevent activity from a single vessel to be clearly identified from the published data) and the procedures for the safeguard of records.

EM data collected via EM should be provided in compliance with the requirements established by the Commission in Resolution 15/01 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence*, Resolution 15/02 *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)* and IOTC Observer Resolution on Regional Observer Scheme.

National EM Programs EM data should be submitted to IOTC in accordance with the electronic data format specifications provided by the IOTC Secretariat and adopted by the IOTC Commission, in order for data to be incorporated in the IOTC Regional Observer Scheme database. The EM data should be properly marked in the database to be distinguished from data collected through onboard human observers.

Roles

IOTC Commission:

- To monitor and provide oversight of the implementation of the REMP, including those implemented through National EM Programs.

-
- To adopt and revise, when necessary, minimum standards for the EM Program, technical specifications, and associated data collection.
 - To agree on overall EM observer/review coverage through IOTC Observer Resolution on Regional Observer Scheme.
 - To develop and adopt a REMP implementation plan.
 - When necessary, the Commission may contract Regional EM review centers to review EM records obtained in the frame of the REMP.
 - To ensure sufficient financial resources to effectively administrate IOTC's REMP.
 - To review IOTC's REMP after an initial period (e.g., 3 years) of IOTC's REMP implementation.

IOTC CPCs:

- In case they choose EMP to meet IOTC Observer Resolution on Regional Observer Scheme, to ensure that EM equipment installed on fishing vessels under its flag and the EMS implementation complies with the requirements established by the Commission for the purpose of IOTC's REMP.
- To require that a Vessel Monitoring Plan (see below) is developed for each vessel equipped with EM equipment and delivered to the CPC competent authorities.
- To ensure that EM equipment are installed in their vessels following a Vessel Monitoring Plan to collect the required data and to comply with the coverage objectives agreed by the Commission.
- To ensure that EMS implementation is consistent with IOTC's REMP and its minimum standards.
- To collaborate to ensure National EM Programs are compatible and harmonized where necessary.
- To document the roles and responsibilities of fisheries government authorities and vessel owner/crew with respect to inter alia installing and maintaining equipment, routine cleaning of cameras, sending storage devices, access to EM records and EM data, responses to mechanical or technical failure of EMS.
- The CPC shall provide the IOTC Secretariat with the contact details of their EM Program Coordinator(s).

IOTC Secretariat:

- To collaborate with the Commission and CPCs to ensure that National EM Programs are consistent and compatible with the REMP and meet IOTC's REMP monitoring minimum standards.
- To summarize and provide annual reports about the progress of the REMP, including National EM Programs, to the Commission and its Subsidiary Bodies.
- To recommend improvements and adjustments to the REMP to ensure that data and monitoring requirements of IOTC Commission are met.
- To coordinate activities regarding EM with other tuna RFMOs as required by the Commission.

EM Vessel Monitoring Plan

The vessel's EM equipment characteristics and how the vessel's EM equipment is optimized to meet the EM System and Data Standards must be recorded on a Vessel Monitor Plan (VMP) for each vessel.

The VMP shall be developed in collaboration with the EM service provider, vessel owner and fishing authorities.

The Vessel Monitoring Plan will describe the numbers of cameras, position and settings, and key areas to be monitored for fishing activities, catch handling, species identification, fate and storage of the individuals.

The VMP should include information on:

- Contact information: contact information for the vessel owner, vessel operator and EM service provider as long as the contract lasts.
- General vessel information: basic information about the vessel and its fishing activities and operations (e.g., vessel name, registration number, target fishery, areas, fishing gear, LOA...).
- Vessel layout: equipment of the vessel with detailed information, plan of the vessel disposition and different areas (decks, processing area, storage, etc.).
- EM equipment setup: description of the settings of the EM equipment, such as time running, number of cameras and areas covered, time recording for each of the cameras, number and position of sensors (if any), software used, control box disposition, procedures for checking the proper functioning of the EM equipment installed onboard, etc.
- A snapshot of each camera should be inserted in the VMP.

The VMP should be signed off by the vessel owner and finally approved by the flag state competent authority.

Any physical changes on a vessel that will affect EMS should be reported to the flag state competent authorities. The VMP should be updated and approved again by the competent authority as soon as possible.

Any change on the EM equipment (e.g., installation of a new generation of cameras) should be reported to the flag state competent authorities. The VMP should be updated and approved again by the competent authority as soon as possible.

Operationalising IOTC's REMF – Accreditation and Auditing of National EMPs

CPCs should apply to the IOTC Secretariat to have its own National EM Program recognized as part of IOTC's REMF so as to comply with ROS data minimum standards.

IOTC shall audit the National EM Programs against the EM minimum standards.

National EM Programs shall be reviewed and subject to regular and periodic audits as agreed by IOTC Commission.

IOTC could authorize National EM Programs approved by other tRFMOs.

ANNEX 2

IOTC ELECTRONIC MONITORING SYSTEM AND DATA STANDARDS

EM TECHNICAL MINIMUM STANDARDS

The Technical Minimum Standards shall describe the requirements of the EM. CPCs shall ensure all EM equipment installed in their national or subregional programs are consistent with these technical specifications.

Customized to vessel level: there is no standard configuration that will cover all vessels from fleets operating in the Indian Ocean region, therefore each EM equipment installation must be customized at the vessel level. An EM equipment to be installed on board of a fishing vessel should consist of a control system connecting a number of cameras, and optionally to a number of different sensors, to collect and record images to address the objectives of the EM Program. The number of cameras and sensors should be tailored to each vessel through a Vessel Monitoring Plan to meet overall objectives of the program rather than being too prescriptive and should include a sufficient number of cameras. Although it will depend on the configuration of each particular vessel, as a general setup, cameras shall capture the areas and activities provided in Table 1 and 2 and Figure 1 to 3 of Annex 3⁶. Each vessel should develop a “Vessel Monitoring Plan” specifying how many and where the cameras are located, and their settings, to collect the required ROS minimum “mandatory” data fields. The collection of some of the required ROS minimum data standards may be complemented by port sampling and/or other data collection methods as described [here⁷]. Within a given EM program, a certain level of harmonisation among vessels may also be necessary (camera placement and settings).

Include sensor/automatic devices: since EM records require large storage capacities, most EMS are not recording vessel activities on a full-time basis. The recording of some cameras may be triggered by the detection of gear usage or fishing activity. EMS may therefore include sensors, and other procedures (Computer Vision, Artificial Intelligence), to detect when fishing or other activities of interest occur on board. This will ensure proper EM record acquisition (e.g. trigger video recording when fishing operation starts) and facilitate EM record reviewing.

Include Global Positioning System (GPS): to monitor vessel position, route, speed and provide information on date/time and location of fishing activities. Fishing vessel position and date/time stamps should be incorporated directly on images or in the metadata of images.

Compatibility: the EMS could ideally be capable of integrating with other Monitoring, Control and Surveillance (MCS) tools (e.g. Vessel Monitoring System).

Robust System: the EM equipment components installed outdoors (such as cameras/camera housing and sensors) should be capable to resist rough conditions at-sea and harsh environment on board the vessels.

Secure System: the EM equipment components and data need to be tamper-resistant and tamper-evident, ideally using encrypted data, such that attempts at unauthorized modifications are not possible.

Cameras: digital, high-resolution when possible, cameras covering all areas of interest on the vessel according to the vessel and fishing operations are recommended. Camera placement, settings and recording must assure the detection of

⁶ Annex 3 should be taken as a general guide since they are examples of existing EMS installations. The EM configuration (number of cameras, position, and monitoring objectives for each) should then be tailored to each fishery/vessel through a Vessel Monitoring Plan.

⁷ EM capabilities to collect ROS minimum data requirement fields (<https://iotc.org/documents/ROS/DataStandards>) may vary from fleet to fleet if the catch handling and setting/hauling maneuvers differ among fleets. Therefore, these values should be taken as a general guide and subject to constant review.

vessel activities, catch and bycatch species, and enable accurate species identification (at least for all species under the IOTC mandate). The system should be able to record activities in low and very bright natural light conditions (low and high contrasts). The cameras must be water resistant and in a self-contained, weather resistant box.

EM records: EM records shall contain the following information: EM record file name including, at a minimum, the vessel name and vessel ID, camera ID, trip ID, geolocation data (date, time (UTC), latitude and longitude), camera recording status, EM health status(when available), images, and sensor data when used.

Independence: the system needs to be self-governing with the exception of minimal maintenance by the crew (e.g., cleaning sensors and cameras). The system may include remote verification of its functionality in real time to collect all information. A designated person should ensure that the system is working properly before leaving port and at sea, and a protocol (checklist) should exist for that purpose.

No interference: EM equipment should not generate or cause radio frequency interference with other on-board vessel communication, navigation, safety, geolocation devices (e.g. VMS) or fishing equipment.

Autonomy: the EM equipment should have its own uninterruptible power supply or be connected to that of the vessel to ensure that it can work even in the event of a vessel power outage. The EM equipment should include separate, duplicate backup devices to ensure that data are not lost if a storage device fails.

EM Data storage autonomy: the EM equipment should have enough storage capacity to store all EM records for a certain period of time, which should be at minimum a complete trip. The duration will depend on the vessel's operational characteristics that could range from 4 months (in the case of purse seiners) to 12 months or more (in the case of longliners).

Interoperability: EMS ideally should generate EM records that are interoperable between different EM service and review providers and, where possible, integrate with other data collection and monitoring tools.

Maintenance: a designated person on board (and/or on land) should be designated to maintain the equipment (e.g., clean of lenses, etc.) and report to the EM equipment provider and the competent authority (e.g., IOTC or flag state) when the system is malfunctioning at port or at sea so the system is fixed as soon as possible, and should record any failure of the EM equipment in a dedicated form.

EM LOGISTICAL MINIMUM STANDARDS

EM records retrieval: the EM records should be transmitted via mobile networks, Wi-Fi, or satellite, or storage device (i.e., SSD or HDD) exchange. For the latter, a protocol to recover and send the storage devices to the designated EM review center should also be implemented.

EM record storage: EM records should be stored by the vessel/company/EM service provider/EM review provider/EM program administrator for at least 1 year or for the period established in the national/regional EM programs.

EM records backup: if EM records are automatically transmitted electronically, operational procedures for their receipt and backup should be implemented taking into account any necessary chain of custody arrangements.

Storage device chain of custody: the EMS must ensure traceability of every storage device and EM records. The chain of custody of the EMS storage devices should be assured.

Frequency: EM programs should include requirements on the method and frequency (e.g. after each trip) of EM records transmission to EM review centers, that should be consistent with the minimum standards established by the CPC or IOTC.

EM DATA REVIEW MINIMUM STANDARDS

EM review software: EMS should include software to facilitate the review of EM records and to produce EM data that will allow compiling and reporting in an IOTC common output format for exchange/submission to IOTC. Ideally, EM review software can be used to review EM records collected from different EM equipment providers.

EM review and EM data reporting: EM records reviewing and EM data reporting should be done by institutions, organizations and independent companies with proven expertise and experience (e.g., work experience with onboard observers). These tasks can be centralized in a “regional EM review center” when implementing a regional program and/or can be carried out by national or independent organizations.

EM records and EM data quality check: the reviewing process of EM records should include quality controls through EM records quality check, EM data entry checks, possible automatic error identification in EM data (e.g. incorrect fishing set positions on land, etc), debriefing of EM observers. The produced EM data should be checked prior to reporting to the IOTC Secretariat.

EM data: EMS should allow collecting and reporting, at a minimum, the ROS Minimum Standard Data Fields. EM data will be submitted to the IOTC Secretariat using IOTC standard forms according to the time frame specified in Resolution 22/04, or any superseding Resolution. Data confidentiality requirements outlined in Resolution 12/02, Data Confidentiality Policy and Procedures, or any superseding Resolution, shall apply to all EM data submitted to the IOTC Secretariat.

EM observers’ training: EM observers must have specific qualifications related to EM record review which should be integrated into the regional or national EM program standards. The EM observer should participate in specialised training courses that should be updated upon modification of the EM review protocol to ensure EM data high-quality standards.

EM observer’s qualifications: EM observers must have the ability to review EM records and produce EM data according to IOTC requirements. EM observers should be familiar with fishing activities and be capable of identifying (i) IOTC species and species of special interest, (ii) IOTC fishing methods, and (iii) IOTC mitigation methods.

Compatibility with ongoing standardized data flow and databases: EM data should have compatible output format (including usage of standardized, well-established code lists) to exchange collected information with current IOTC data reporting format and standards, and should be consistent with IOTC data rules. EM data will be submitted in an approved electronic data reporting format to the IOTC Secretariat, using IOTC standard codes and units.

Data storage and retention: legal provisions on data protection, storage, and retention by IOTC should be developed and agreed upon whether it is a REMP or EM National Programs.

EM records ownership: EM records ownership is of the vessel owner/flag state but should provide IOTC with the EM data outputs to incorporate in the IOTC database for use, analysis, and disposal as required by the IOTC observers Resolution on Regional Observer Scheme.

Hardware/software ownership: irrespective of the scope of the EM program, it is recommended that hardware and software license ownership (and maintenance) is of the vessel owner/flag state.

ANNEX 3

VESSEL MONITORING PLANS (GUIDE)

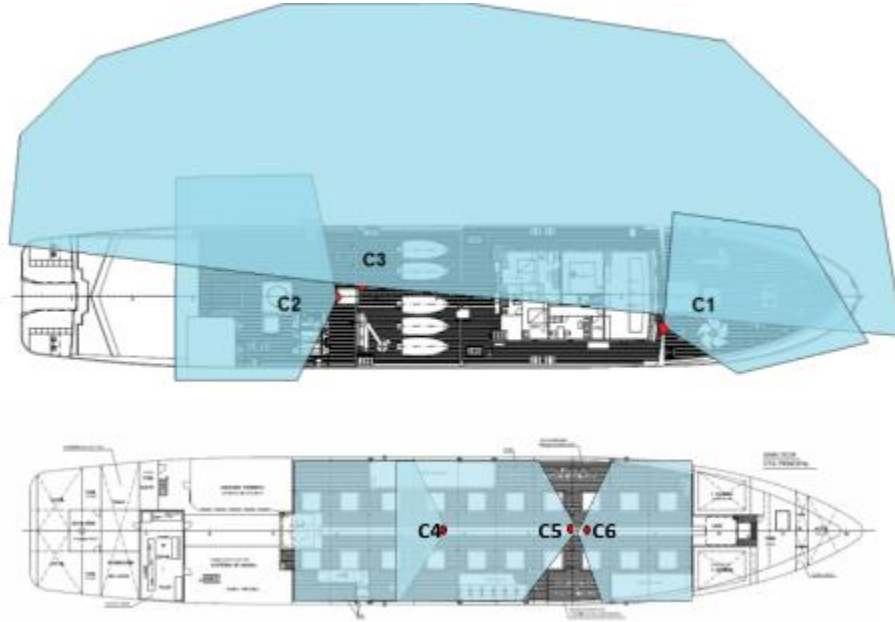
Each vessel should develop a “Vessel Monitoring Plan” so as to define how many and where cameras are located to collect the required ROS minimum data fields. Vessel Monitoring Plans should be reviewed by the CPCs fishery management agency and presented to the WGEMS/WPDCS to ensure it meets IOTC REMP Program and EM System and Data Standards.

On purse seine vessels, the minimum areas that cameras are recommended to cover:

- the working deck (both port and starboard sides),
- the net sack and the brailer,
- the foredeck or amidships (e.g., FAD activity),
- and the well deck and conveyor belt (Murua et al., 2022; Restrepo et al., 2018): for the conveyor belt, in more than one place (e.g. at the beginning and at the end of the conveyour belt as a minimum). If a discard conveyor belt exists, it should also be covered.
- Cameras must cover the following actions: fishing set, brailing, net hauling, FAD activities, total catch, catch well sorting (process of putting the catch in the hold or wells), bycatch handling and release, and tuna discards (Figure 1 and Table 1).
- In large purse seines, at least 6 cameras are needed to cover fishing and fish-handling operations; however, less fewer cameras (e.g. 4 cameras) could cover the activity to collect the data required of smaller purse seines (e.g. 300-400 tonnes capacity).

The preferred EM equipment configuration would be the one that allows a greater number of images (frames) of higher quality/resolution. Digital video is generally preferred, but still images can also be a viable option to capture information during the various phases of the vessel activity. However, considering that storage capacity is limited, an optimal configuration may have video on certain areas/cameras/moments, while still photos on others. In the case of photographs, the minimum requirement should be that a picture is taken by the camera with viewing angle fully covering the fish management areas at least every 2 seconds when fishing action occurs (Restrepo et al., 2018). Image quality should also be adequate enough to allow accurate collection of all required data field, such as species ID, FAD materials and design, or bait used and, hence, achieve the monitoring objectives.

A



B

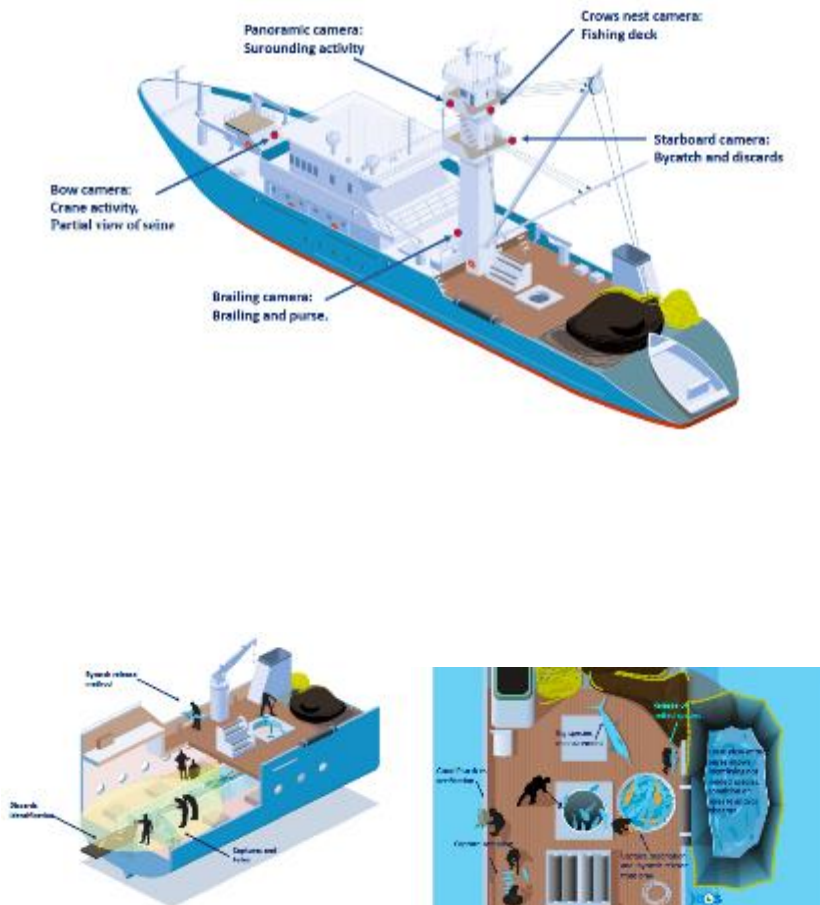




Figure 1. (A) An example of a 6-camera EM system installed in a purse seine covering main areas of fishing and fish handling operations (from Murua et al., 2020b) and (B) 7-camera EM system (4 in the upper deck and 3 in the well deck) installed in a purse seine covering main areas of fishing and fishing handling operations including 1 more camera in the conveyor belt: (B1) 360° Panoramic view camera (e.g port side view), (B2) Crows nest stern view camera, (B3) Working deck crane camera view, (B4) Foredeck view camera, (B5) Conveyor belt stern camera view, (B6) Conveyor belt middle camera, and (B7) Conveyor belt bow camera (source: Digital Observer Services).

Table 1. Minimum areas and actions that should be monitored (adapted from Murua et al., 2022; Ruiz et al., 2017).

Area covered	Action covered	Purpose	Minimum data requirements to be monitored
Work deck (port side)	Brailing	Total catch by set Species composition	Number of brails & fullness by brail. Weight, size and species of retained tuna
	Tuna discards	Total tuna discards by set	Weight, size and species of discarded tuna
	Bycatch handling	Bycatch estimation	number of individuals handling mode Species ID
Work deck (starboard side)	Bycatch handling	Bycatch estimation	Handling mode
	Bycatch release	Total bycatch by set	Number of individuals and species ID
In-water purse seine area	Brailing	Total catch by set	Number of brails & fullness by brail
	Bycatch handling and safe-release of individual animals (whale sharks, manta rays...)	Total bycatch by set . Application of handling and safe-release best practices	Handling mode
	Bycatch release of big species (whale sharks, manta rays...)	Total bycatch by set Application of handling and safe-release best practices.	Number of individuals and species ID
Foredeck or amidships	FAD activity (deploying, replacement, reparation...)	Total number of FAD deployments, FAD design and FAD activities by trip	Number, material (natural or artificial), and FAD characteristics (entangling or no entangling)
Well deck and conveyor belt	Catch well sorting	Species composition	Weight, size and species of retained tuna.
	Bycatch handling	Best practices	Handling mode
	Estimation of bycatch discards, releases or retention	Total bycatch by set Species composition Application of handling and safe-release best practices.	Number, size or weight of individuals, species ID and fate

On longline vessels, the minimum areas and activities that cameras are recommended to cover (Table, 2, Figure 2):

- The area of setting the longline (usually vessel stern site camera),
- the area of hauling the longline,
- the working deck where catch is handled,
- and the surrounding water area for those discarded species not brought onboard

- Cameras must cover the following actions: setting of the longline, bait type information, whether mitigation techniques are being used (e.g. tori lines for seabirds), hauling of the longline, all hooked species (both retained and discarded), the fate of the catch, and the size of the specimens.
- On most tuna longlines, at least 3 cameras are needed to cover fishing activities and fish handling operations: one capturing images when setting the longline, one to record the hauling and boarding of the catch, and other mounted over the processing deck to record species, size of specimens and fate (Murua et al., 2020a). And additional camera to cover the surrounding water area for those discarded species not brought onboard is also recommended.



C1: Stern camera



C2: Fishing deck 1



C3: Fishing deck 2



Figure 2. An example of a 3-camera EM equipment installed on a longline covering main areas of fishing and fish handling operations. View of the 3 cameras: (left panel) Stern camera - setting longline providing information on hooks, floats, mitigation techniques and bait; (middle panel) Fishing deck 1 - hauling information, captures and discards, species ID, size and fate; and (right panel) Fishing deck 2 - fate of the species, size, species ID (source: Digital Observer Services).

Table 2 – General configuration and areas/activities covered by the EM system onboard tropical tuna longline vessels

Area covered	Action covered	Minimum data requirements to be monitored
Stern camera of the boat	Start and end setting operation	Position, date, and time
		Total number of hooks set and between floats
		Total number of floats set
		Bait type
		Bait species
		Bait ratio (%)
		Mitigation measures/marine pollution
Work deck	Catch onboard	Length and weight ⁸ by capture
		Condition
		Fate
		Predator observed
	Bycatch discarded, released, or retained	Total bycatch by set and species composition
Processing area	Catch	Total catch by set
		Length and weight ¹ by capture
		Sex
		Fate
Surrounding water area	Start and end hauling operation	Position, time and date
	Estimation of bycatch discards, releases or retention	Total bycatch by set and species composition
		Species condition and fate

⁸ Estimated through length-weight relationships.

On pole and line vessels, the minimum areas that cameras are recommended to cover are the area of bait fishing activity, the area of the fishing set and pole and line fishing activity (vessel stern site camera) and the working deck where catch is handled. On a typical Indian Ocean pole and line vessels, this will require at least 2 or 3 cameras to cover main fishing activity areas, fish handling operations and bait fishing (Figure 3).



Figure 3. An example of a 3-camera EM equipment installed on a Bay of Biscay (Atlantic Ocean) pole and line vessel covering main areas of fishing activity and fish handling operations. View of the 3 cameras: (left panel) Vessel bridge camera stern view – pole and line activity; (middle panel) Fish handling - catch storage; (right panel) Vessel bridge camera bow view - bait and pole and line fishing activity (source: Marine Instrument).

RESOLUTION 23/09
ON A FISH AGGREGATING DEVICES (FADS) WORKING GROUP

Keywords: Fish aggregating device (FAD); working group on FADs; drifting FADs; anchored FADs; purse seine

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organizations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

NOTING that the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

AWARE that the Commission is committed to adopt conservation measures to reduce juvenile bigeye tuna and yellowfin tuna mortalities from fishing effort on Fish Aggregating Devices (FADs);

AWARE that the availability of adequate information is fundamental to carrying out the objectives of the IOTC Agreement laid down in its Article V;

NOTING that the IOTC Scientific Committee advised the Commission to conduct an investigation of the feasibility and impacts of a temporary FAD closure as well as other measures in the context of Indian Ocean fisheries and stocks;

NOTING that the IOTC Scientific Committee recommended that an ad hoc working group on FADs, drifting and anchored, be created to assess the consequences of the increasing number and technological developments of FADs in tuna fisheries and their ecosystems, in order to inform and advise on future FAD-related management options;

NOTING that ICCAT and WCPFC have already approved at their 2014 sessions the establishment of FAD working groups, and that the SC agreed that at least the ICCAT and IOTC working groups on FADs work jointly whenever possible;

NOTING that ad hoc Working Group on FADs was held three times after adoption of the relevant Resolution in 2015;

RECOGNISING that the 3rd ad hoc Working Group on FADs noted that there was some uncertainty as to the role and reporting structure and agreed that the working group should be technical in nature;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. A Working Group on Fish Aggregating Devices (WGFAD) shall be established in accordance with Article XII.5 of the IOTC Agreement and Rule XIII.1 of the IOTC Rules of Procedure (2022).
2. The Terms of Reference of the WGFAD shall be those prescribed in Annex I.
3. The WGFAD shall meet annually as set out in the Annex unless otherwise decided by the Commission.

ANNEX I

TERMS OF REFERENCE FOR A WORKING GROUP ON FISH AGGREGATING DEVICES (WGFAD)

- 1) The WGFAD is a technical and scientific working group to assess the effectiveness of management measures for FADs and provide advice on other potential FAD management options.
- 2) The objectives of the WGFAD would be the following:
 - To collect and compile information about past and present numbers of buoys and FADs, changes in FAD technology and activities of supply vessels;
 - To review the requirements relating to the collection of data on FADs established through Resolution 23/01 and Resolution 23/02 (or any subsequent revisions), and to provide advice on potential amendments that may be useful;
 - To assess the developments in FAD technology notably with regards to:
 - changes in catchability due to technological improvements;
 - using FAD and buoys marking and identification as a tool for monitoring, tracking and control of FADs;
 - reducing the ecological impacts of FADs through improved design, such as non-entangling FADs and biodegradable material.
 - To evaluate ways to improve the use of information related to FADs in the process of stock assessment, particularly in the standardisation of catch per unit effort;
 - To identify potential management options, including the appropriate deployment limits, area closures, set limits, and characteristics of FADs;
 - To assess the consequences of FAD management options, on IOTC-managed species and on the pelagic ecosystems;
 - To share scientific and technical experience, knowledge and information on current practices and challenges in FAD associated fisheries.
- 3) The IOTC Secretariat should consider holding the WGFAD via an online format or using the meeting participation fund (MPF) to facilitate the participation of scientists from IOTC coastal state Members who would contribute significantly in the WGFAD.
- 4) The access to data used for the WGFAD will follow the confidentiality policy and procedures presented in Resolution 12/02 (or any subsequent superseding Resolution).
- 5) The WGFAD should be composed mainly by scientists and technical experts, but not limited to fisheries managers, fishing industry Representatives, administrators and other interested stakeholders.



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- 6) The discussion should prioritise technical documents.
 - 7) The WGFAD should bear in mind the elements of the Recommendation 12/15.
 - 8) The WGFAD shall meet annually and shall report on its work to the Working Party on Tropical Tunas, Working Party on Ecosystems and Bycatch and Working Party on Data Collection and Statistics annual sessions, as appropriate. Relevant Working Parties should make recommendation, as appropriate, to the Scientific Committee.
 - 9) The IOTC Commission, at its annual session, will review the progress and outcomes of the WGFAD through the Report of the Scientific Committee and might decide on possible suggested amendments of Resolution 23/01 and 23/02 (or any subsequent revisions), as appropriate, to apply appropriate FAD management measures.

RESOLUTION 23/10
TERMS OF REFERENCE FOR A WORKING PARTY ON SOCIO-ECONOMICS

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission to keep under review the economic and social aspects of the fisheries based on the stocks covered by the IOTC Agreement;

FURTHER CONSIDERING the objective of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of the Coastal States and Articles 87 and 116 of the United Nations Convention of the Law of the Sea (UNCLOS) regarding the right to fish on the high seas;

RECOGNISING the special requirements of the developing states, particularly Small Island Developing States (SIDS) in Article 24 of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECALLING that Article 6 of the UNFSA requires States to apply the precautionary approach widely to the conservation, management, and exploitation of highly migratory fish stocks;

FURTHER RECALLING that the precautionary approach requires States to be more cautious when information is uncertain, unreliable, or inadequate and that the precautionary approach prescribes that the absence of scientific information shall not be used as a reason for postponing or failing to take conservation and management measures;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3, 2009; implementing where appropriate a freeze on fishing capacity on a fishery-by-fishery basis, and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

FURTHER CONSIDERING the recommendations adopted by the KOBE III, held in La Jolla, California, 11- 15 July 2011, considering the status of the stocks, each RFMO should consider a scheme for reduction of overcapacity in a way that does not constrain the access to, development of, and benefit from sustainable tuna fisheries, including on the high seas, by developing coastal States, in particular, SIDS, territories, and States with small and vulnerable economies; and Transfer of capacity from developed fishing members to developing coastal fishing members within its area of competence where appropriate;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the states to increase the reliance on scientific advice in developing, adopting, and implementing conservation and management measures and to take into account the special requirements of developing states, including SIDS as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

RECALLING Article XII.5 - Subsidiary Bodies of the IOTC AGREEMENT that states:

5. The Commission may, subject to the provisions of this Article, establish such committees, working parties or other subsidiary bodies as may be necessary for the purposes of this Agreement.

RECALLING RULE XIII.1 – The Other Subsidiary Bodies of the Commission, of the IOTC Rules of Procedure (2022) that states:

- 1. Pursuant to Article XII.5 the Commission may also establish such committees, working parties or other subsidiary bodies as may be necessary for the purposes of the Agreement.*
- 2. Pursuant to Article XII.5 of the Agreement, the Commission establishes the following permanent working parties which will act as advisory bodies to the Scientific Committee or the Commission.*

MINDFUL that socio-economic data are a key component of the scientific advice required for the evidence-based management of fisheries, yet in many countries, these data are limited, usually because of a lack of technical capacity for their collection;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following;

1. Pursuant to Article XII, paragraph 5 of the Agreement, the Commission establishes a Working Party on Socio-Economics (WPSE).
2. The Terms of Reference and Rules of Procedure of the WPSE are those specified in Annex I.
3. The Terms of Reference and Rules of Procedure shall be incorporated, into the IOTC Rules of Procedure at its next revision.
4. This resolution shall expire upon incorporation into the next revision of the IOTC Rules of Procedure.

ANNEX I

WORKING PARTY ON SOCIO-ECONOMICS — TERMS OF REFERENCE AND RULES OF PROCEDURE

The Working Party on Socio-Economics (WPSE) shall inform the Commission on the socio-economic status and dynamics of fisheries for tuna and tuna-like species in the IOTC area of competence and to assess and advise on potential impacts to CPCs arising from the Conservation and Management Measures, allocation of quotas and catch limits, and recommendations of the IOTC Scientific Committee.

Composition:

The WPSE would be technical and scientific in nature and should be composed of stakeholders, experts and practitioners, in particular the following:

- a. social scientists;
- b. economists;
- c. fisheries officers;
- d. invited experts.

The participation of the Chair of the Scientific Committee (or designee) in the WPSE shall be mandatory.

Mandate:

The WPSE shall;

- a. Establish the work plan for the WPSE.
- b. Identify, review, and recommend appropriate, robust metrics and indicators to assess the social and economic dynamics of fisheries.
- c. Identify and recommend the reporting criteria and modalities of submitting the information to the IOTC Secretariat or sourcing the information from multilateral agreements and organisations, bearing in mind that this new data collection requirement should not be an administrative burden.
- d. Propose and promote:
 - i. regionally harmonised and improved methods and tools for the collection and management of social and economic data as identified in subparagraph a.
 - ii. analysis of fisheries value chains to assess the social and economic state and dynamics of fisheries for tuna and tuna-like species in the IOTC area of competence.
 - iii. analysis of the likely impact of CMMs on these factors.
- e. Provide guidance on data and indicator definitions to ensure a consistent approach to data and indicators across CPCs.
- f. Work closely with the Working Party on Data Collection and Statistics to collect and compile information about past and present social and economic indicators including but not limited to social and economic contribution of fisheries for tuna and tuna-like species in the IOTC area of competence, respective economic dependence on fish stocks, the social and economic importance of the fishery, contribution to national food security needs, domestic consumption, income from exports, fisheries subsidies and employment.
- g. Develop the assessment framework to analyse the social and economic impacts arising from the implementation of CMMs, allocation of quotas and catch limits, and recommendations of the IOTC Scientific Committee.
- h. Support and coordinate capacity development and training initiatives in the areas falling within its mandate.
- i. Meet annually with the first meeting being in-person and subsequent meetings being conducted either in person or in hybrid mode. Acknowledging the IOTC budget constraints and IOTC Resolution 22/01, virtual meetings



will be the preferred option, or for in -person meetings, the Secretariat will look for solutions to reduce meeting costs.

The IOTC Meeting Participation Fund shall be used to fund a maximum of one (1) participant from each eligible CPC to facilitate and contribute to the mandate of the WPSE.

All data collected by the WPSE shall be subject to the confidentiality policy and procedures outlined in Resolution 12/02 (or any superseding Resolutions).

RECOMMENDATION 23/11
**TO ENHANCE COOPERATION IN THE INDIAN OCEAN TUNA COMMISSION DECISION MAKING
PROCESS**

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND that under Article V of Agreement for the Establishment of the IOTC, the Commission shall promote cooperation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilization of stocks and encouraging sustainable development of fisheries based on such stocks;

NOTING that it is a well-known and established practice for Regional Fisheries Management Organizations (RFMOs) that all decisions must be made by consensus of Member States or Parties;

ACKNOWLEDGING that consensus is also an invaluable aspect of the decision-making process of the IOTC;

ACKNOWLEDGING that any decisions by the Commission should fully take into account different views of Contracting Parties and Cooperating Non-Contracting Parties (CPCs) who must put all their efforts to find room for mutually satisfactory compromise and thus eventually reach consensus, including when adopting conservation and management measures;

GRAVELY CONCERNED by the growing polarization shown in recent years among CPCs regarding some of the issues of great importance;

FURTHER CONCERNED that continuation of this worrying trend has been seriously undermining work of the Commission and that it is being accelerated rather than slowing down;

RECALLING that Article 8 of United Nations Fish Stock Agreement (UNFSA) provides that States should enter into consultations in good faith and without delay, particularly where there is evidence that the straddling fish stocks and highly migratory fish stocks concerned may be under threat of over-exploitation;

Noting that the United the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fishing provides that States should cooperate in order to prevent disputes and all disputes relating to fishing activities and practices should be resolved in a timely, peaceful and cooperative manner;

DESIRING to strengthen the cooperative spirit which CPCs have all been committed to since the commencement of the IOTC as well as their joining of the Commission to achieve conservation and optimum utilization of tuna and tuna-like species in the Indian Ocean;

RECOMMENDS, in accordance with the provisions of Article IX, paragraph 8 of the IOTC Agreement, that:

1. CPCs are urged to cooperate and consult with each other in good faith and the spirit of cooperation to meet the objectives of the Commission as provided in Article V, paragraph 1 of the IOTC Agreement, recognizing the established global practice of making decisions by consensus at international meetings, including those of RFMOs.
2. CPCs should make every effort to ensure that all decisions and recommendations of the Commission, including adoption of conservation and management measures, are achieved by consensus. CPCs must exhaust all their efforts to this end including through having bilateral and/or multilateral consultations.
3. When consensus cannot be met at a meeting, CPCs are encouraged to continue their efforts until they find a point where compromise and agreement by consensus can be made.
4. In the event that a CPC objects to a conservation and management measure in accordance with Article IX (5) of the IOTC Agreement, that CPC is encouraged to submit details of the reasoning behind their objection.



ACTIVE CMMs ADOPTED AT THE TWENTY-SIXTH SESSION OF THE IOTC

2022

RESOLUTION 22/01
ON CLIMATE CHANGE AS IT RELATES TO THE INDIAN OCEAN TUNA COMMISSION

Keywords: Climate Change, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC)

RECOGNISING international initiatives to address the impacts of climate change including through the United Nations Framework Convention on Climate Change and the Paris Agreement;

NOTING the work of the Intergovernmental Panel on Climate Change;

MINDFUL of the work of the Scientific Committee and the Working Parties in assessing the impacts of climate change on tuna stocks and by-catch, and species belonging to the same ecosystem or dependent or associated with the target stocks in the Convention Area;

CONVINCED of the importance of addressing the potential impacts of climate change and other environmental degradation on target stocks, non-target species, and species belonging to the same ecosystem or dependent or associated with the target stocks in the IOTC Area of Competence;

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) was adopted in cognisance of the need to avoid adverse impacts on the marine environment, preserve biodiversity, maintain the integrity of marine ecosystems and minimise the risk of long-term or irreversible effects of fishing operations;

RECALLING that Article 5 of the UNFSA requires States to assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks and to adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened;

CONCERNED by the findings of the 2022 Intergovernmental Panel on Climate Change with high confidence that climate change is causing the redistribution of marine fish stocks, increasing risk of transboundary management conflicts among fisheries users, and negatively affecting equitable distribution of food provisioning services as fish stocks shift from lower to higher latitude regions, thereby increasing the need for climate-informed transboundary management and cooperation

RECALLING the concern of the 23rd Session of the Working Party on Tropical Tuna that changes in ocean temperatures could have direct impacts on tuna spatial distributions and stock dynamics.

FURTHER RECALLING that the 24th Session of the Scientific Committee noted the importance of understanding the impact of climate change in particular on tropical tuna;

ADOPTS, in accordance with Article IX, paragraph 1 of the IOTC Agreement, the following:

1. The Commission shall in its deliberations, to the extent possible, including in the development of conservation and management measures, take into account scientific information available from the Scientific Committee and other relevant international processes on the potential impacts of climate change on tuna stocks, bycatch and species belonging to the same ecosystem or dependent on or associated with tuna stocks.
2. The Commission shall support further scientific research into the relationship between climate change, tuna fisheries and tuna stocks, bycatch, and ecosystem or dependent on or associated with the tuna stocks, including research to inform potential measures to mitigate and/or adapt to climate change impacts.
3. The IOTC Scientific Committee, when requested by the Commission, shall consider and where possible, advise on the potential impacts of climate change on highly migratory fish stocks and any related impacts on

the economies, food security and livelihood of CPCs in particular developing States among them Least Developing States and Small Island Developing States.

4. The IOTC Scientific Committee shall consider how climate change and fishing activities may be related and provide advice to the Commission on the potential implications for these relationships for the conservation and management of tuna and associated stocks.
5. The IOTC Executive Secretary, with the advice of the IOTC Scientific Committee, upon the availability of supplementary funds, shall undertake capacity-building programs in particular in the developing coastal States among them the Least Developed States and Small Island Developing States, to improve climate change science and the understanding of climate change impacts on tuna stocks, bycatch and species belonging to the same ecosystem or dependent on or associated with the tuna stocks.
6. The IOTC Executive Secretary shall seek funding for the implementation of climate change related scientific works and capacity building programs through various funding mechanisms such as the Global Environmental Facility, World Bank and others for the implementation of this resolution.
7. The IOTC Executive Secretary shall propose for endorsement by the Commission, for its 2023 session, options and alternatives to reduce the environmental impacts of the IOTC activities related to headquarters' operation and meetings of the Commission and its subsidiary bodies. In particular, the Secretariat is requested to propose guidelines to reduce the impact of in person meetings, including a list of meetings to be held virtually.

RESOLUTION 22/03
ON A MANAGEMENT PROCEDURE FOR BIGEYE TUNA IN THE IOTC AREA OF COMPETENCE.

Keywords: *Bigeye tuna, Management Procedure, Harvest Strategy, Target reference point, MSY.*

The Indian Ocean Tuna Commission (IOTC),

HAVING responsibility for the conservation and optimum utilization of tuna and tuna-like species in the Indian Ocean;
RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage tuna resources in the IOTC area of competence;

RECOGNISING the adopted management objectives of the Commission set out in Resolution 15/10 are to: 1) maintain the biomass at or above levels required to produce MSY or its proxy, 2) maintain the fishing mortality rate at or below F_{MSY} or its proxy, and 3) avoid the biomass being below B_{LIM} and the fishing mortality rate being above F_{LIM} ;

MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Articles 87 and 116 of the UN Convention on the Law of the Sea regarding the right to fish on the high seas;

RECOGNISING the special requirements of developing States, particularly Small Island developing States, in Article 24 of the 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 (UNFSA);

RECOGNISING [Resolution 12/01](#) *On the implementation of the precautionary approach* calls on the Indian Ocean Tuna Commission to implement and apply the precautionary approach, in accordance with Article 6 of UNFSA;

RECALLING [Resolution 15/10](#) *On Target and Limit Reference Points and a Decision Framework*, which identifies objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence; and identifies reference points for IOTC stocks including bigeye tuna;

RECOGNIZING the intent of the Commission to adopt management procedures aimed at achieving the objectives of the IOTC Agreement ([Resolution 15/10](#)) aided by advice of the Technical Committee on Management Procedures (TCMP), as established in [Resolution 16/09](#) and as further expounded in the *Schedule of work for the development of management procedures for key species in the IOTC Area*;

ACKNOWLEDGING the Scientific Committee advice that the most recent stock assessment in 2019 determined bigeye tuna is not overfished but subject to overfishing;

FURTHER CONSIDERING the endorsement of the bigeye tuna operating model by the 24th meeting of the Scientific Committee (December 2021, SC24) and the SC24's advice that the key technical work (management strategy evaluation) required to test the performance of candidate management procedures had been completed;

FURTHER CONSIDERING the advice and recommendations of the 5th Session of the Technical Committee on Management Procedures (TCMP) regarding a management procedure for bigeye tuna which noted that both candidate management procedures for bigeye tuna presented to the TCMP achieved the management objective and recommended the 26th Session of the Commission discuss and select a candidate management procedure for adoption.

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement:

7. A management procedure for the bigeye tuna stock managed by the IOTC with a view of maintaining the stock biomass in the green zone of the Kobe plot (not overfished and not subject to overfishing) while maximizing

the average catch from the fishery and reducing the variation in the total allowable catch (TAC) between management periods.

Management procedure

8. The adopted management procedure for bigeye tuna known as MP1 Harvest is described in Annex I (MP).
9. Consistent with the adopted management objectives of the Commission, the management procedure is designed to achieve:
 - a) a 60% probability that the bigeye tuna spawning stock biomass achieves the target reference point of SB_{MSY}^9 by 2034-2038;
 - b) the bigeye tuna spawning stock biomass avoids breaching the interim limit reference point specified in Resolution 15/10 with a high probability;and operates with the following constraint:
 - c) the maximum increase or decrease in the TAC shall be 15% relative to the previous TAC.

Total Allowable Catch setting

10. The Scientific Committee shall run the MP and advise the Commission of the outcome, including a recommended TAC and any advice on exceptional circumstances in accordance with the Commission endorsed Guidelines for the Provisions of Exceptional Circumstances for IOTC MPs as documented in Appendix 6a of IOTC-2021-SC24-R.
11. The Commission shall adopt the TAC based on the outcome of the MP, unless the Scientific Committee identifies exceptional circumstances that require consideration of alternate management actions to be taken by the Commission.
12. The first TAC derived from the MP shall apply in 2024 and 2025. After 2025, the TAC shall apply in each of the subsequent three years following the year it is set by the Commission¹⁰.
13. The schedule for setting and applying the TAC, beginning the calendar year immediately following adoption of this Resolution, is shown in Annex II.
14. If exceptional circumstances are triggered, the pre-existing TAC shall remain in place until a new TAC or other management action is agreed by the Commission.

TAC allocation

15. Allocation of the TAC among CPCs will take place according to a process agreed external to this measure.
16. The Commission will develop a mechanism to constrain catch to the MP derived TAC for bigeye tuna no later than 2025, if an allocation scheme has not yet been agreed and implemented by the Commission.

Review

17. A review of performance of the MP by the Commission and its subcommittees is to occur in 2030. The aim of the review is to ensure the MP is performing as expected and whether there are any conditions that warrant reconditioning the operating models, retuning the existing MP, or consideration of alternate candidate MPs and a new full management strategy evaluation.
18. The Scientific Committee is requested to review, and if necessary, further develop and refine (not later than 2024), the exceptional circumstances guidelines (adopted by SC24 and S26), taking into account, *inter alia*, the

⁹ The spawning stock biomass associated with achieving maximum sustainable yield.

¹⁰ E.g. the Scientific Committee runs the MP in 2022, the TAC is set by the Commission in 2023, the TAC applies in 2024 and 2025. The Scientific Committee runs the MP in 2024, the TAC is set by the Commission in 2025, the TAC applies from 2026-2028.



need for an appropriate balance between specificity versus flexibility in defining exceptional circumstances, and the appropriate level of robustness to ensure that exceptional circumstances are triggered only when necessary.

19. The IOTC, through the Technical Committee on Management Procedures, is requested to review the need for, and if necessary, develop at latest by 2025, guidance on a range of appropriate management responses should those exceptional circumstances be found to occur.

ANNEX I

DESCRIPTION AND FORMULAE FOR CALCULATING TACS FOR MPI_HARVEST

MP1 Harvest has two data inputs: total catch biomass and spatially aggregated longline CPUE from 1980 to the most recent year of catch data. It then fits a Pella-Tomlinson biomass dynamic model to the CPUE data given the catch biomass. Estimated parameters are carrying capacity (K), intrinsic rate of increase (r), initial biomass depletion (δ), the production curve shape parameter (m), and finally annual biomass B and its stochastic variability σ_B . From these parameters we derive the key variables used in the harvest control rule (HCR):

1. Ratio of fishing mortality to the value which produces MSY (F_{MSY} ratio)
2. Relative biomass or depletion: B/K

The HCR is a simple hockey stick type: for biomass depletion above 0.4 the HCR multiplier (HCR_{mult}) is 1, it decreases to (almost) zero linearly by a biomass depletion of 0.1. The overall fishing mortality used to estimate the TAC is calculated as follows: F_{MSY} ratio \times HCR_{mult} \times tuning parameter (F_{mult}). This fishing mortality is used in conjunction with the estimated biomass B to calculate the new TAC. A symmetric maximum change of 15% is then applied to calculate the actual recommended TAC. The main suite of equations that define the HCR are as follows:

$$HCR_{mult} = 1 \text{ if } \frac{B_y}{K} \geq 0.4$$

$$HCR_{mult} = \frac{\frac{B_y}{K} - 0.1}{0.3} \text{ if } 0.1 < \frac{B_y}{K} < 0.4$$

$$HCR_{mult} = 0.0001 \text{ if } \frac{B_y}{K} \leq 0.1$$

$$TAC_{new} = B_y(1 - \exp(-F_{mult} \times HCR_{mult} \times F_{MSY} \text{ ratio}))$$

DATA SPECIFICATION

The input data for MPI_Harvest are:

- b) Total catches of bigeye tuna in the IOTC Area of Competence. These are collated by the IOTC Secretariat and prepared annually for the IOTC Working Party on Tropical Tuna. Data used are from 1980 to the most recent year of data available.
- c) Standardised and spatially aggregated longline catch per unit effort (CPUE). These are derived from the joint standardisation analysis approach described in Hoyle *et al* (2019)¹¹ applied to catch and effort data from 1980 to the most recent year of data available.

¹¹ Hoyle, S., Chang, S.T, Fu, D., Kim, D.N., Lee, S.I., Matsumoto, T., Chassot, E., Yeh, Y.M. 2019. Collaborative study of bigeye and yellowfin tuna CPUE from multiple Indian Ocean longline fleets in 2019, with consideration of discarding. IOTC–2019–WPM10–16.

ANNEX II

SCHEDULE FOR MP IMPLEMENTATION

IOTC COMMITTEE	2022	2023	2024	2025	2026	2027	2028	2029
Commission (May/June)	Select and adopt BET MP	Annual Review of SC advice						
		Set TAC (2024-2025)		Set TAC (2026-2028)			Set TAC (2029-2031)	
WPTT and WPM (Oct)	Collate catch data and CPUE series used in MP		Collate data used in MP			Collate data used in MP		
	Consider exceptional circumstances (EC), advise SC		Consider EC			Consider EC		
SC (Dec)	Run MP		Run MP			Run MP		
	Assess* stock status				Assess stock status			Assess stock status
	Annual Review of Exceptional Circumstances							
	Provide TAC advice to the Commission		Provide TAC advice			Provide TAC advice		

- The assessment of stock status has a distinct role and purpose from the management procedure and is not used for TAC advice. It is included in this schedule to identify best practice in the timing of running of the assessment, i.e. in the year after MP TAC decisions have been made.

RESOLUTION 22/04 ON A REGIONAL OBSERVER SCHEME

Keywords: Regional Observer Scheme, Scientific Observer, Electronic Monitoring System

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the need to increase the scientific information, in particular to provide the IOTC Scientific Committee (SC) working material in order to improve the management of the tuna and tuna-like species fished in the Indian Ocean;

REITERATING the responsibilities of flag States to ensure that their vessels conduct their fishing activities in a responsible manner, fully respecting IOTC Conservation and Management Measures;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to fully comply with the IOTC Conservation and Management Measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's Conservation and Management Measures, and the need to encourage Non-Contracting Parties (NCPs) to abide by these measures;

UNDERLINING that the adoption of this measure is intended to help support the implementation of Conservation and Management Measures as well as scientific research for tuna and tuna-like species;

CONSIDERING the provisions set forth in Resolution 11/04 [**superseded by Resolution 22/04**] *On A Regional Observer Scheme*, adopted by the Commission;

CONSIDERING [Resolution 16/04](#) *On the implementation of a pilot project in view of promoting the regional observer scheme of IOTC*;

FURTHER CONSIDERING the deliberation of the 21st Session of the IOTC Scientific Committee held in Seychelles, from 3 to 7 December 2018;

RECALLING the discussion of the 23rd session of the IOTC held in Hyderabad, India, from 17 to 21 June 2019;

FURTHER RECALLING that the 23rd session of the IOTC Scientific Committee expressed the concern on the low observer coverage level at 2.15% and on the fact that there is no coverage of the artisanal fleet, which comprise a large portion of catches taken in the Indian Ocean;

CONSIDERING the recurrent non-compliance of multiple fleets to the minimum observer coverage since the adoption of Resolution 11/04;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Definition

1. In this Resolution:

- a. "field sampler" means a person who collects information on land during the unloading of fishing vessels and field sampling programs can be used *inter alia* for quantifying catch, retained bycatch and collecting tag returns; and
- b. "observer" means a person who collects information on board fishing vessels, in the framework of observer programs, can be used *inter alia* for monitoring fishing activities, quantifying species composition of target species and bycatch, whether they are retained or discarded and deploying or collecting tags.

- c. “Electronic Monitoring System” (EMS) means an integrated system of hardware and software that supports acquisition of video footages of fishing activity, positional data and/or sensor, that allows the analysis and reporting of EM records.
- d. “Pool of observers” means a list of IOTC recognised observers that have been allocated an IOTC registration number and trained according to IOTC standards who may be called upon by other flag States.

Objective

2. The objective of the IOTC Regional Observer Scheme (ROS) shall be to collect verified catch data and other scientific data related to the fisheries for tuna and tuna-like species in the IOTC area of competence.

Observer Scheme

3. In order to improve the collection of scientific data, each CPC shall ensure that all fishing vessels of 24 meters length overall and above and under 24 meters, if they operate outside the exclusive economic zone (EEZ) of the flag CPC and in the IOTC area of competence, comply with the minimum observer coverage of 5% as defined by the number of operations/sets.
4. The IOTC Scientific Committee, in collaboration with the Compliance Committee, shall develop and agree on minimum standards for the use of EMS for purse seine, longline, bait boat (pole and line), handline, and gillnet fleets by 2023 at the latest, including on modalities of the substitution of the human observer coverage by an EMS, taking into account factors such as, the principles and regulations regarding minimum safe manning requirements. The Commission may consider and adopt these standards by 2024 in a separate Resolution.
5. Once the EMS standards are adopted and providing CPCs meet the minimum mandatory ROS data reporting standards, the minimum human observer coverage provided for in paragraph 3 may be complemented or substituted by means of an EMS. To ensure the minimum mandatory ROS data reporting standards are met, the EMS may be complemented by port sampling and/or other Commission approved data collection methods. CPCs are encouraged to use an EMS to improve the collection of scientific data before the standards mentioned in paragraph 4 are adopted.
6. CPCs shall endeavor to provide a list of observers to the IOTC Secretariat constituting the basis for the development of a regional pool of observers. The regional pool of observers shall be composed of observers registered through authorised observer providers according to the IOTC ROS standards. Each observer shall be allocated an IOTC registration number that must be included on reported data.
7. When purse seiners are carrying an observer in accordance with paragraph 3, this observer shall also monitor the catches at unloading to identify the species composition of targeted tuna species. The requirement for the observer to monitor catches at unloading is not applicable to CPCs already having a sampling scheme, with at least the coverage set out in paragraph 3.
8. Landings from artisanal fishing vessels shall also be monitored at the landing place by field samplers. The indicative level of the coverage of the artisanal fishing vessels shall be 5% of the total levels of vessel activity (i.e. total number of vessel trips or total number of active vessels).
9. Field samplers shall monitor catches at the landing place with a view to estimating catch-at-size by type of boat, gear and species, or carry out such scientific work as may be requested by the IOTC Scientific Committee.
10. CPCs shall:
 - a. have the primary responsibility to obtain qualified observers and each CPC may choose to use either deployed national or non-national of the flag State of the vessel on which they are deployed;
 - b. ensure that the minimum level of coverage is met;
 - c. take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner;
 - d. endeavour to ensure that the observers alternate vessels between their assignments;

- e. ensure that observers perform duties described in paragraphs 7, 15 and 16. If observers are entrusted with complementary tasks by the relevant CPC fisheries research institutes, this shall in no way affect their performance on the above-mentioned duties;
 - f. ensure that the vessel on which an observer is placed shall provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible; and
 - g. require vessel masters to ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely including providing access, as required, to the retained catch, and catch which is intended to be discarded.
11. If the coverage referred in paragraphs 3 is not met by a CPC, any other CPC may, subject to the consent of the CPC who has not met its coverage, place an observer to fulfil the tasks defined in the paragraphs 7, 15, 16 and 17 until that CPC provides a replacement or the target coverage level is met.
12. CPCs shall provide to the IOTC Secretariat and the IOTC Scientific Committee, annually in their national scientific reports, a description of the protocols supporting their observer programs and sampling schemes mentioned in paragraphs 3, 5, 7 and 8, the number of fishing vessels and of fishing effort sampled, as well as the coverage achieved by gear type in accordance with the provisions of this Resolution.
13. Observers shall:
- a. record and report fishing activities, verify positions of the vessel;
 - b. observe and estimate catches as far as possible with a view to identifying catch composition and bycatch and to monitoring discards including their fate (e.g. released alive) and size frequency;
 - c. record the gear type, mesh size and attachments employed by the master;
 - d. collect information to enable the cross-checking of entries made to the logbooks (species composition and quantities, live and processed weight and location, where available); and
 - e. carry out such scientific work (e.g. collecting samples), as requested by the IOTC Scientific Committee.
14. The IOTC Scientific Committee shall adopt by 2023 the IOTC ROS Observer Manual and the IOTC Observer Forms used for reporting (including minimum data fields) and provide advice on a training program.
15. Once adopted by the IOTC Scientific Committee, observers shall use the IOTC ROS *Minimum Standard Data Fields*, the IOTC data collection forms, the IOTC Species identification cards, the IOTC Regional Observers Scheme (ROS) Observer Manual and the IOTC Observer Forms when carrying out their duty. The Secretariat shall publish this information in a dedicated area of the IOTC website.
16. Each observer shall provide, within 30 days of completion of each trip, a report to the flag CPC of the vessel. If the vessel was fishing in the EEZ of a coastal State, the part of the observer report covering fishing activities in the EEZ shall be also submitted to that coastal State.
17. Each CPC shall provide, to the IOTC Secretariat within 150 days the latest, each report and observer data, following IOTC observer reporting templates and standards. The Executive Secretary shall make the information available to the IOTC Scientific Committee.
18. The data referenced in paragraph 17 shall be provided by 1°x1° square and month. CPC shall endeavor to send these data in an electronic format suitable for automated data extraction.
19. The confidentiality rules set out in [Resolution 12/02](#) *Data confidentiality policy and procedures for fine-scale data* shall apply.
20. The funds available from the IOTC balance of funds may be used to support the implementation of this program in developing coastal CPCs, notably the training of observers and field samplers.
21. The elements of the Observer Scheme, notably those regarding its coverage and the adoption of EMS standards, are subject to review and revision, as appropriate, for application in 2023 and subsequent years.



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22. All provisions in this resolution related to the deployment of observers onboard fishing vessels, shall apply *mutatis mutandis* to the use of EMS, as applicable.
 23. This Resolution supersedes Resolution 11/04 *On A Regional Observer Scheme*.



ACTIVE CMMs ADOPTED AT THE TWENTY-FIFTH SESSION OF THE IOTC

2021

RESOLUTION 21/01

ON AN INTERIM PLAN FOR REBUILDING THE INDIAN OCEAN YELLOWFIN TUNA STOCK IN THE IOTC AREA OF COMPETENCE

(Objection received from India, Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia: does not apply to these CPCs.

Resolution 19/01 remains binding for Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia. Resolution 18/01 remains binding for India.

Resolution 21/01 entered into force on 17 December 2021)

Keywords: Yellowfin tuna, Kobe Process, MSY, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECOGNISING the special requirements of the developing States, particularly Small Island developing States in Article 24(b), of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982, relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

FURTHER RECOGNISING the need to ensure that conservation and management measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, Article 24(c) of UNFSA;

RECALLING that Article 5, of UNFSA entitles the conservation and management of highly migratory fish stocks are based on best scientific evidence available and with special reference to IOTC [Resolution 15/10](#) for a stock where the assessed status places it within the red quadrant, and with an aim to end overfishing with a high probability and to rebuild the biomass of the stock in as short time as possible;

FURTHER RECALLING that Article 6, of UNFSA and IOTC [Resolution 12/01](#) “*On the implementation of the precautionary approach*”, requires the States to be cautious during the application of precautionary approach when information is uncertain, unreliable or inadequate and this should not be a reason for postponing or failing to take conservation and management measures;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

FURTHER CONSIDERING the recommendations adopted by the KOBE III, held in La Jolla, California, 12- 14 July 2011; considering the status of the stocks, each RFMO should consider a scheme for reduction of overcapacity in a way that does not constrain the access to, development of, and benefit from sustainable tuna fisheries, including on the high seas, by developing coastal States, in particular Small Island Developing States, territories, and States with small and vulnerable economies; and Transfer of capacity from developed fishing members to developing coastal fishing members within its area of competence where appropriate;

FURTHER CONSIDERING the concern of the 20th Session of the Working Party for Tropical Tuna held in Seychelles, 29 October – 3 November 2018, the change in strategy by increase of usage of FADs by the purse seine vessels to maintain catch level targets has led to a substantial increase of juvenile yellowfin tuna and bigeye tuna;

NOTING THAT supply vessels contribute to the increase in effort and capacity of purse seiners and that the number of supply vessels has increased significantly over the years;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the States to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing States, including Small Island Developing States (SIDS) as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

NOTING THAT Article V.2b of the Agreement for the Establishment of the Indian Ocean Tuna Commission give full recognition to the special interests and needs of Members in the region that are developing countries, in relation to the conservation and management and optimum utilization of stocks covered by this Agreement and encouraging development of fisheries based on such stocks;

FURTHER NOTING THAT Article V.2d requires the Commission to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal States. This includes ensuring that conservation and management measures adopted by it do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, especially Small Island Developing States;

RECOGNIZING FURTHER the interactions that occur between the fisheries for yellowfin, skipjack and bigeye tuna;

FURTHER CONSIDERING the management advice of the 23rd session of the Scientific Committee, that given the limitations and uncertainties in the stock assessment and the inability to use K2SM derived from the 2018 yellowfin tuna stock assessment, the catches to be reduced to a level at least below the C_{MSY} estimate (403,000MT) and the need to decrease the fishing mortality from the 2017 level in order to remove overfishing on the stock;

FURTHER CONSIDERING the issues raised in the 23rd session of the Scientific Committee regarding the estimated K2SM probabilities derived from the 2018 stock assessment, and that due to critical errors in projections and estimations in computing probabilities in the K2SM developed in 2018, the K2SM is not suitable to provide management advice;

FURTHER CONSIDERING the SC 2020 advice that Commission should ensure that CPCs take all necessary action to achieve the catch reductions in their fleets as per Resolution 19/01.

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Application

1. This resolution shall apply to all CPCs within the IOTC area of competence.
2. This resolution will be effective from 1st January 2022. The measures contained within this Resolution shall be considered as interim measure and will be reviewed by the Commission no later than at its annual Session in 2022.
3. Notwithstanding paragraph 2, this Resolution shall be reviewed when a formal Management Procedure for the management of the yellowfin tuna stock is adopted by the Commission and in effect.
4. Nothing in this resolution shall pre-empt or prejudice future allocation of fishing opportunities.

Catch limits

5. CPCs whose reported catches of yellowfin tuna for 2014 were above 5000t shall reduce their catches of yellowfin tuna by 21% compared to 2014 yellowfin tuna catch, except:
 - a. If those CPCs are Coastal Developing States, they shall reduce their catches of yellowfin tuna by 12% compared to 2014 yellowfin tuna catch;
 - b. If those CPCs are Small Island Developing States or Least Developed States, they shall reduce their

catches of yellowfin tuna by 10% compared to 2014 yellowfin tuna catch.

6. CPCs whose reported catches of yellowfin tuna for 2014 were below 5000t and their average catches of yellowfin tuna for the period from 2017 to 2019 inclusive, were above 5000t, shall reduce their catches of yellowfin tuna by 21% compared to 2014 yellowfin tuna catch, except;
 - a. If those CPCs are Coastal Developing States, they shall reduce their catches of yellowfin tuna by 12% compared to average of 2017 – 2019 yellowfin tuna catch;
 - b. If those CPCs are Small Island Developing States or Least Developed States, they shall reduce their catches of yellowfin tuna by 10% compared to average of 2017 – 2019 or 2018 yellowfin tuna catch, whichever is higher.
7. CPCs whose reported catches of yellowfin tuna for 2014 were below 5000t and their average catches of yellowfin tuna for the period from 2017 to 2019 inclusive were between 2000t to 5000t, shall not exceed their maximum reported yellowfin tuna catches between 2017 to 2019.
8. CPCs whose reported catches of yellowfin tuna for 2014 were below 5000t and their average catches of yellowfin tuna for the period from 2017 to 2019 inclusive were below 2000t, shall not exceed their catches above 2000t
9. In respect of paragraph 8, and recalling paragraph 4, for conservation purposes three CPCs have agreed exceptionally for 2022 (or 1 year) not to exceed yellowfin tuna catches at different levels¹
10. In applying the catch reductions in paragraph 5, Small Island Developing State CPCs and Least Developed State CPCs can either choose between catches of yellowfin tuna reported for either 2014, or 2015 or their average catches for the period from 2017 to 2019.
11. In applying the catch reductions in paragraph 5 for Distant Water Fishing CPCs, if the average yellowfin tuna catches between 2017 – 2019 were below 10,000t, CPCs shall reduce their yellowfin catch by 13% compared to 2014 levels.
12. CPCs will determine appropriate methods for achieving these catch reductions, which could include capacity reductions, effort limits, etc., and will report to the IOTC Secretariat in their Implementation Report every year.
13. Any CPC who submits updated catch histories of yellowfin tuna in accordance with IOTC resolution 15/01 and verified by the secretariat and the IOTC Scientific Committee, shall have a right to access yellowfin tuna in accordance with the limits prescribed in the Resolution.

Over catch of annual limit

14. If over catch of an annual limit for a given CPC listed in paragraph 5 to 13 occurs, catch limits for that CPC shall be reduced as follows:
 - a. for over-catch of limits set forth in Resolution 19/01, in 2020 and/or 2021, 100% of that over-catch shall be deducted from following two years limit, and;
 - b. over-catch in 2022 and following years, 100% of that over-catch shall be deducted from the following two years' limit, unless;
 - c. over-catch for that CPC has occurred in two or more consecutive years, in which case 125% of the over-catch shall be deducted from the following two years limit.

¹ France (OT) 500t; Philippines 700t; and the United Kingdom 500t.

15. CPCs that are subject to catch reductions due to over-catch shall inform the Commission via the IOTC Compliance Committee, corrective actions taken by the CPC to adhere to the prescribed catch levels, in their implementation Report.
16. The revised limits from paragraph 14 will apply in the following year and CPCs compliance shall be assessed against the revised limits reported to the IOTC Compliance Committee.
17. The tropical tuna data submitted by CPCs in accordance with [Resolution 15/01](#) “*On the recording of catch and effort data by fishing vessels in the IOTC area of competence*” and [Resolution 15/02](#) “*Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*” shall be reviewed by the Secretariat and discussed by the Scientific Committee for possible inconsistencies. In such cases, the Scientific Committee shall provide the rationale of the detected inconsistencies and justify the choice of the best solution available with regard the scientific analysis to be carried out. Data used for catch limit calculations shall be based on the data reviewed, including possible estimates, by the Secretariat.

Supply Vessels

18. CPCs shall gradually reduce supply vessels² in purse seine operations targeting tropical tuna, by 31st December 2022 as specified below in (a) and (b). Flag States shall submit the status of reducing the use of supply vessel as part of the report of Implementation to the Compliance Committee.
 - a. From 1 January 2022 to 31 December 2024: 3 supply vessels in support of not less than 10 purse seiners, all of the same flag State³.
 - b. No CPC is allowed to register any new or additional supply vessel on the IOTC Record of Authorized Vessels.
19. A single purse seine vessel shall not be supported by more than one single supply vessel of the same flag State at any point of time.
20. Complementary to Resolution 15/08 and to Resolution 15/02, CPC/flag States shall report annually before the 1st of January for the coming year of operations which Purse seiners are served by each supply vessel. This information will be published on IOTC website so as to be accessible to all CPCs and is mandatory.

Gillnet

21. Without prejudice to Article 16 of the IOTC Agreement, CPCs shall encourage phasing out or convert gillnet fishing vessels to other gears, considering the huge ecological impact of these gears and fast track the implementation of [Resolution 17/07](#) “*On the Prohibition to use large-scale driftnets in the IOTC*”, noting that large-scale driftnets are prohibited in the IOTC Area of Competence from 1 January 2022.
22. CPCs shall set their gillnets at 2m depth from the surface in gillnet fisheries by 2023 to mitigate ecological impacts of gillnets.
23. CPCs are encouraged to increase their observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human) verified by the IOTC Scientific Committee by 2023.
24. CPCs shall report the level of implementation of paragraphs 21-23 to the Commission via the Compliance Committee.

Administration

25. The IOTC Secretariat under advice of the Scientific Committee shall prepare and a table of allocated catch limits

² For the purpose of this resolution, the term “supply vessel” includes “support vessel”

³ The subparagraph (a) shall not apply to CPCs which use only one supply vessel

- disaggregated as per the conditions set out in paragraphs 5 – 13 for following year, in December of the current year.
26. For the purposes of the implementation of this resolution, each CPC shall, by 15 February of the following year, notify to the Executive Secretary the list of vessels, which have fished for yellowfin tuna in the IOTC area of competence for the preceding year.
 27. The IOTC Secretariat shall report each year these lists of active vessels to the IOTC Compliance Committee and to the IOTC Scientific Committee in the form of aggregated statistics concerning fishing fleets capacity metrics.
 28. CPCs shall monitor the yellowfin tuna catches from their vessels in conformity with [Resolution 15/01](#) “*On the recording of catch and effort data by fishing vessels in the IOTC area of competence*” and [Resolution 15/02](#) “*Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non Contracting Parties (CPCs)*” and will provide a summary of most-recent yellowfin catches for the consideration of the IOTC Compliance Committee.
 29. Each year, the IOTC Compliance Committee shall evaluate the level of compliance with the reporting obligations and the catch limits deriving from this Resolution and shall make recommendations to the Commission accordingly.
 30. The IOTC Scientific Committee via its Working Party on Tropical Tunas shall implement the “Workplan to improve current assessment of yellowfin tuna” and shall advise the Commission the financial and administrative requirements to further strengthen the work undertaken to minimize the issues and complexities regarding yellowfin tuna stock assessment.
 31. The IOTC Scientific Committee and its Working Parties shall prioritise the work on the yellowfin tuna management procedure and to provide advice to the Technical Committee on Management Procedures and to enable the Commission to adopt the yellowfin tuna management procedure at the earliest opportunity.
 32. The Scientific Committee via its Working Party on Tropical Tunas shall undertake evaluation of the effectiveness of the measures detailed in this Resolution, taking into account all sources of fishing mortality possible aiming at returning and maintaining biomass levels at the Commission’s target level.
 33. This Resolution supersedes IOTC Resolution 19/01 *On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock*.

RESOLUTION 21/03

ON HARVEST CONTROL RULES FOR SKIPJACK TUNA IN THE IOTC AREA OF COMPETENCE

(Objection received from Australia and Oman: does not apply to these CPCs.

Resolution 16/02 remains binding for Oman.

Resolution 21/01 entered into force on 17 December 2021)

Keywords: Skipjack tuna; Reference Points; Harvest Control Rules; Precautionary Approach; Management Strategy Evaluation.

The Indian Ocean Tuna Commission (IOTC),

NOTING Article V, paragraph 2(c), of the IOTC Agreement is to adopt, in accordance with Article IX and on the basis of scientific evidence, Conservation and Management Measures to ensure the conservation of the stocks covered by the Agreement;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States, Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas and of Article 24 of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) regarding recognition of the special requirements of developing states;

RECOGNISING [Resolution 12/01](#) *On the implementation of the precautionary approach* calls on the Indian Ocean Tuna Commission to implement and apply the precautionary approach, in accordance Article 6 of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECOGNISING the ongoing discussions on allocation and the need to avoid prejudicing future decision of the Commission;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the states to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing states, including Small Island developing States as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

TAKING INTO ACCOUNT the need to have due regard for the interests of all Members concerned, in conformity with the rights and obligations of those Members under international law and in particular, to the rights and obligations for developing countries;

RECALLING Article 6, paragraph 3(b) of UNFSA that calls on States to implement the precautionary approach using the best scientific information available, using stock-specific reference points and outlining the action to be taken if they are exceeded;

FURTHER RECALLING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, inter alia, on the basis of the precautionary approach;

ACKNOWLEDGING that implementing pre-agreed harvest strategies including harvest control rules is considered a critical component of modern fisheries management and international best practices for fisheries management;

FURTHER NOTING that a harvest control rule encompasses a set of well-defined, pre-agreed rules or actions used for determining a management action in response to changes in indicators of stock status with respect to reference points;

NOTING that the Scientific Committee at its 17th Session, recommended the Commission consider an alternative approach to identify biomass limit reference points, such as those based on biomass depletion levels, when the MSY-based reference points are difficult to estimate. In cases where MSY-based reference points can be robustly estimated, limit reference points may be based around MSY;

FURTHER NOTING that the Scientific Committee also recommended that in cases where MSY-based reference points cannot be robustly estimated, biomass limit reference points be set at 20% of unfished levels ($B_{LIM} = 0.2B_0$);

ACKNOWLEDGING that the IOTC Scientific Committee has initiated a Commission requested process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on HCRs;

RECALLING obligations and agreements under Resolutions [12/02](#)¹⁵, [15/01](#)¹⁶, [15/02](#)¹⁷, and [15/10](#)¹⁸;

RECOGNIZING the SC20 advice that the total catches of skipjack tuna in 2018 were 30% larger than the resulting catch limit from the skipjack HCR for the period 2018-2020 (470,029 t);

RECALLING that the 2019 skipjack catch from the Indian Ocean was 547,248t and the maximum catch limit calculated applying the HCR specified in [Resolution 16/02](#) is 513,572t for the period 2021-2023;

FURTHER RECOGNIZING that reaching the management objectives defined in [Resolution 16/02](#) requires that the catch limits adopted by the skipjack HCR are implemented effectively and the need for the Commission to ensure the catches of skipjack tuna during this period do not exceed the agreed limit.

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

Objectives

1. To maintain the Indian Ocean Tuna Commission skipjack tuna stock in perpetuity, at levels not less than those capable of producing maximum sustainable yield (MSY) as qualified by relevant environmental and economic factors including the special requirements of Developing Coastal States and Small Island Developing States in the IOTC area of competence and considering the general objectives identified in [Resolution 15/10](#) (or any subsequent revision).
2. To use a pre-agreed harvest control rule (HCR) to maintain the skipjack tuna stock at, or above, the target reference point (TRP) and well above the limit reference point (LRP), specified in [Resolution 15/10](#) (or any subsequent revision).

Reference Points

3. Consistent with paragraph 2 of [Resolution 15/10](#), the biomass limit reference point, B_{lim} , shall be 20% of unfished spawning biomass¹⁹ (i.e. $0.2B_0$).
4. Consistent with paragraph 3 of [Resolution 15/10](#), the biomass target reference point, B_{targ} , shall be 40% of unfished spawning biomass (i.e. $0.4B_0$).

¹⁵ 12/02: Data Confidentiality, policy and procedures

¹⁶ 15/01: On the recording of catch and effort data by fishing vessels in the IOTC Area of competence

¹⁷ 15/02: Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non- Contracting Parties (CPCs)

¹⁸ 15/10: On Target and Limit Reference Points and a decision framework

¹⁹ The symbol B is used to refer to spawning biomass, the total mass of mature fish, i.e. B_0 , B_{lim} , B_{targ} and B_{curr} all refer to different levels of spawning biomass.

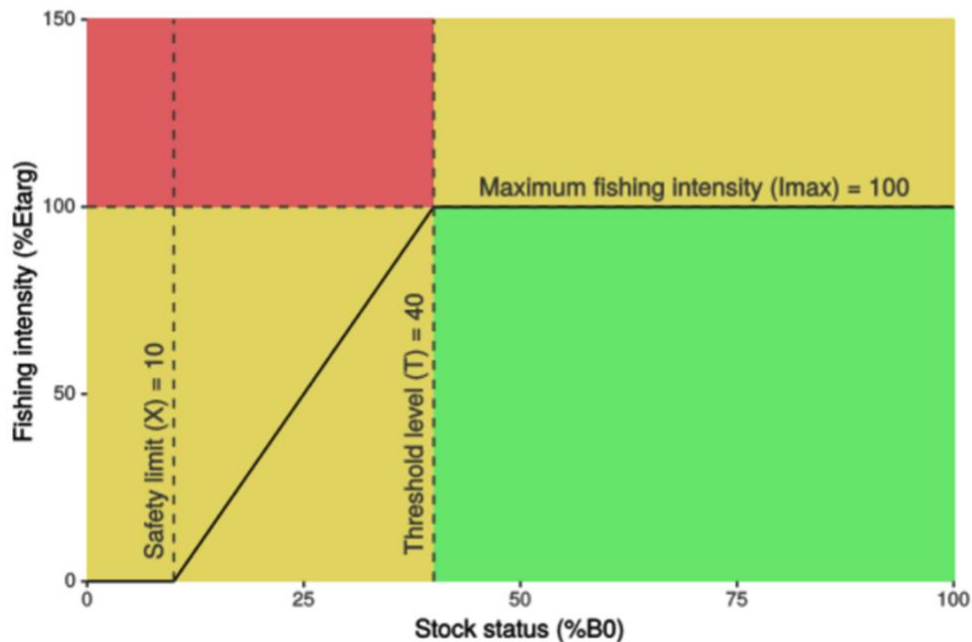
5. The HCR described in paragraphs 6–12 seeks to maintain the skipjack tuna stock biomass at, or above, the target reference point while avoiding the limit reference point.

Harvest Control Rule (HCR)

6. The skipjack tuna stock assessment shall be conducted every three (3) years, with the next stock assessment to occur in 2023. Estimates of 7(a–c) shall be taken from a model-based stock assessment that has been reviewed by the Working Party on Tropical Tunas and endorsed by the Scientific Committee via its advice to the Commission.
7. The skipjack tuna HCR shall recommend a total annual catch limit using the following three (3) values estimated from each skipjack stock assessment. For each value, the reported median from the reference case adopted by the Scientific Committee for advising the Commission shall be used.
- The estimate of current spawning stock biomass (B_{curr});
 - The estimate of the unfished spawning stock biomass (B_0);
 - The estimate of the equilibrium exploitation rate (E_{targ}) associated with sustaining the stock at B_{targ} .
8. The HCR shall have five control parameters set as follows:
- Threshold level, the percentage of B_0 below which reductions in fishing mortality are required, $B_{thresh} = 40\% B_0$. If biomass is estimated to be below the threshold level, then fishing mortality reductions, as output by the HCR, will occur.
 - Maximum fishing intensity, the percentage of E_{targ} that will be applied when the stock status is at, or above, the threshold level $I_{max} = 100\%$. When the stock is at or above the threshold level, then fishing intensity (I) = I_{max}
 - Safety level, the percentage of B_0 below which non-subsistence catches are set to zero i.e. the non-subsistence²⁰⁶ fishery is closed $B_{safety} = 10\% B_0$.
 - Maximum catch limit (C_{max}), the maximum recommended catch limit = 900,000t. To avoid adverse effects of potentially inaccurate stock assessments, the HCR shall not recommend a catch limit greater than C_{max} . This value is based upon the estimated upper limit of the MSY range in the 2014 skipjack stock assessment.
 - Maximum change in catch limit (D_{max}), the maximum percentage change in the catch limit = 30%. To enhance the stability of management measures the HCR shall not recommend a catch limit that is 30% higher, or 30% lower, than the previous recommended catch limit.
9. The recommended total annual catch limit shall be set as follows:
- If the current spawning biomass (B_{curr}) is estimated to be at or above the threshold spawning biomass i.e., $B_{curr} \geq 0.4B_0$, then the catch limit shall be set at $[I_{max} \times E_{targ} \times B_{curr}]$
 - If the current spawning biomass (B_{curr}) is estimated to be below the threshold biomass i.e., $B_{curr} < 0.4B_0$, but greater than the safety level i.e., $B_{curr} > 0.1B_0$, then the catch limit shall be set at $[I \times E_{targ} \times B_{curr}]$. See Table 1 in Appendix 1 for values of fishing intensity (I) for specific B_{curr}/B_0 .
 - If the spawning biomass is estimated to be at, or below, the safety level, i.e. $B_{curr} \leq 0.1B_0$ then the catch limit shall be at 0 for all fisheries other than subsistence fisheries.
 - In the case of (a) or (b), the recommended catch limit shall not exceed the maximum catch limit (C_{max}) and shall not increase by more than 30% or decrease by more than 30% from the previous catch limit.
 - In the case of (c) the recommended catch limit shall always be 0 regardless of the previous catch limit.

²⁰ A subsistence fishery is a fishery where the fish caught are consumed directly by the families of the fishers rather than being bought by middle-(wo)men and sold at the next larger market, per the FAO Guidelines for the routine collection of capture fishery data. FAO Fisheries Technical Paper. No. 382. Rome, FAO. 1999. 113p.

10. The HCR described in 8(a-e) produces a relationship between stock status (spawning biomass relative to unfished levels) and fishing intensity (exploitation rate relative to target exploitation rate) as shown below (See Table 1 in **Appendix 1** for specific values):



11. The catch limit shall by default, be implemented in accordance with the allocation scheme agreed for skipjack tuna by the Commission. In the absence of an allocation scheme, the HCR shall be applied as follows:
- If the stock is at or above the Threshold level (i.e., $B_{curr} \geq 0.4B_0$), then the HCR shall establish an overall catch limit and catches of skipjack tuna for any given year shall be maintained at or below the overall catch limit established by the HCR.
 - If the stock falls below the Threshold level (i.e., $B_{curr} < 0.4B_0$), the fishing mortality reductions shall be implemented proportionally by CPCs for catches over 1 percent of the catch limit established by the HCR with due consideration to the aspirations and special requirements of Developing Coastal States and Small Island Developing States.
 - The Commission may consider to develop and adopt Conservation and Management Measure(s) to ensure catches of skipjack tuna are maintained at or below the overall catch limit established by the HCR and to apply fishing mortality reductions if the stock falls below the Threshold level (i.e. $B_{curr} < 0.4B_0$), with due consideration to the aspirations and special requirements of Developing Coastal States and Small Island Developing States, no later than the annual session of the IOTC in 2022.
 - This paragraph shall not pre-empt or prejudice future allocation negotiations.

Review and exceptional circumstances

- The HCR, including the control parameters, will be reviewed through further Management Strategy Evaluation (MSE).
- In the case that the estimated spawning biomass falls below the limit reference point, the HCR will be reviewed, and consideration given to replacing it with an alternative HCR specifically designed to meet a rebuilding plan as advised by the Commission.
- The recommended total annual catch produced by the HCR will be applied continuously as set forth in paragraph 11 above, except in case of exceptional circumstances, such as caused by severe environmental perturbations. In such circumstances, the Scientific Committee shall advise on appropriate measures.



Scientific Advice

15. The IOTC Scientific Committee shall:
- a) Include the LRP and TRP as part of any analysis when undertaking all future assessments of the status of the IOTC skipjack tuna stock.
 - b) Undertake and report to the Commission a model-based skipjack tuna stock assessment every three (3) years, commencing with the next stock assessment in 2023.
 - c) Undertake a programme of work to further refine Management Strategy Evaluation (MSE) for the IOTC skipjack tuna fishery as required in paragraph 12 including, but not limited to,
 - i. Refinement of operating model(s)/ used,
 - ii. Alternative management procedures,
 - iii. Refining performance statistics.

Final Clause

16. The Commission shall review this measure at its annual session in 2022, or before if there is reason and/or evidence to suggest that the skipjack tuna stock is at risk of breaching the LRP.
17. This resolution supersedes [Resolution 16/02](#) *On harvest control rules for skipjack tuna in the IOTC area of competence*.

Appendix 1

Table 1. Values of fishing intensity for alternative levels of estimated stock status (B_{curr}/B_0) produced by the HCR

Stock status (B_{curr}/B_0)	Fishing Intensity (I)		Stock status (B_{curr}/B_0)	Fishing Intensity (I)
At or above 0.40	100%		0.24	46.7%
0.39	96.7%		0.23	43.3%
0.38	93.3%		0.22	40.0%
0.37	90.0%		0.21	36.7%
0.36	86.7%		0.20	33.3%
0.35	83.3%		0.19	30.0%
0.34	80.0%		0.18	26.7%
0.33	76.7%		0.17	23.3%
0.32	73.3%		0.16	20.0%
0.31	70.0%		0.15	16.7%
0.30	66.7%		0.14	13.3%
0.29	63.3%		0.13	10.0%
0.28	60.0%		0.12	6.7%
0.27	56.7%		0.11	3.3%
0.26	53.3%		0.10 or below	0%
0.25	50.0%			



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

ACTIVE CMMs ADOPTED AT THE TWENTY-THIRD SESSION OF THE IOTC

2019

RESOLUTION 19/01

ON AN INTERIM PLAN FOR REBUILDING THE INDIAN OCEAN YELLOWFIN TUNA STOCK IN THE IOTC AREA OF COMPETENCE

(Objection received from India: not applicable to India. Resolution 18/01 remains binding on India. Resolution 19/01 remains binding on Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia

Resolution 19/01 entered into force on 28/12/2019)

Keywords: Yellowfin tuna, Kobe Process, MSY, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECOGNISING the special requirements of the developing States, particularly Small Island developing States in Article 24, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982, relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECALLING that Article 5, of UNFSA entitles the conservation and management of highly migratory fish stocks are based on best scientific evidence available and with special reference to [Resolution 15/10](#) for a stock where the assessed status places it within the red quadrant, and with an aim to end overfishing with a high probability and to rebuild the biomass of the stock in as short time as possible;

FURTHER RECALLING that Article 6, of UNFSA and IOTC [Resolution 12/01](#) *On the implementation of the precautionary approach*, requires the States to be cautious during the application of precautionary approach when information is uncertain, unreliable or inadequate and this should not be a reason for postponing or failing to take conservation and management measures;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

FURTHER CONSIDERING the recommendations adopted by the KOBE III, held in La Jolla, California, 12- 14 July 2011; considering the status of the stocks, each RFMO should consider a scheme for reduction of overcapacity in a way that does not constrain the access to, development of, and benefit from sustainable tuna fisheries, including on the high seas, by developing coastal States, in particular Small Island Developing States, territories, and States with small and vulnerable economies; and Transfer of capacity from developed fishing members to developing coastal fishing members within its area of competence where appropriate;

FURTHER CONSIDERING the report by International Council for the Exploration of Sea and FAO Working Group on Fishing Technology and Fish Behaviour (2006), Gillnets are considered to be one of the least catch controllable and least environmentally sustainable gears;

FURTHER CONSIDERING the recommendations of the 18th Scientific Committee held in Bali, Indonesia, 23 – 27 November 2015 and the 21st session of the Scientific Committee held in Seychelles, 3 – 7 December 2018, that the catches of yellowfin tuna have to be reduced by 20% of the 2017 levels to recover the stocks to levels above the interim target reference points with 50% probability by 2027 as specified in Kobe II Strategy Matrix;

FURTHER CONSIDERING the management advice of the 21st session of the Scientific Committee on the limitations and uncertainties in the stock assessment;

FURTHER CONSIDERING the concern of the 20th Session of the Working Party for Tropical Tuna held in

Seychelles, 29 October – 3 November 2018, the change in strategy by increase of usage of FADs by the purse seine vessels to maintain catch level targets has led to a substantial increase of juvenile yellowfin tuna and bigeye tuna;

NOTING THAT supply vessels contribute to the increase in effort and capacity of purse seiners and that the number of supply vessels has increased significantly over the years;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the States to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing States, including Small Island Developing States (SIDS) as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

NOTING THAT Article V.2b of the Agreement for the Establishment of the Indian Ocean Tuna Commission give full recognition to the special interests and needs of Members in the region that are developing countries, in relation to the conservation and management and optimum utilization of stocks covered by this Agreement and encouraging development of fisheries based on such stocks;

FURTHER NOTING THAT Article V.2d requires the Commission to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal States. This includes ensuring that conservation and management measures adopted by it do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, especially Small Island Developing States;

RECOGNIZING FURTHER the interactions that occur between the fisheries for yellowfin, skipjack and bigeye tuna;

CONSIDERING paragraph 12 of Resolution 16/01 [superseded by Resolution 17/01, then by Resolution 18/01 then by Resolution 19/01] that allows the Commission to review this Interim Plan before 2019;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Application

1. This resolution shall apply to all fishing vessels targeting tuna and tuna like species in the Indian Ocean of 24 meters overall length and over, and those under 24 meters if they fish outside the EEZ of their flag State, within the IOTC Area of Competence.
2. The measures contained within this Resolution shall be considered as interim measure and will be reviewed by the Commission no later than at its annual Session in 2020.
3. Notwithstanding paragraph 2, this Resolution shall be reviewed when a formal Management Procedure for the management of the yellowfin tuna stock is adopted by the Commission and in effect.
4. Nothing in this resolution shall pre-empt or prejudice future allocation of fishing opportunities.

Catch limits

5. **Purse seine:** CPCs whose purse seine catches of yellowfin reported for 2014 were above 5000 MT to reduce their purse seine catches of yellowfin by 15 % from the 2014 levels.
6. **Gillnet:** CPCs whose Gillnet catches of yellowfin reported for 2014 were above 2000 MT to reduce their Gillnet catches of yellowfin by 10 % from the 2014 levels.
7. **Longline:** CPCs whose Longline catches of yellowfin reported for 2014 were above 5000 MT to reduce their Longline catches of yellowfin by 10 % from the 2014 levels.
8. **CPCs' other gears:** CPCs whose catches of yellowfin from other gears reported for 2014 were above 5000 MT to reduce their other gear catches of yellowfin by 5 % from the 2014 levels.
9. In applying the catch reductions by gears in provisions in paragraph 5, 6, 7 and 8, Small Island Developing States and Least Developed Countries can either choose between catches of yellowfin tuna reported for either 2014 or 2015. For such CPCs Paragraph 13(a) is applicable over the accumulated catch in 2018 and 2019.



10. Exceptionally for 2019 and 2020, Small Island Developing States CPCs that contributed less than 4% of the total yellowfin catch of the Indian Ocean in 2017, shall reduce their purse seine catch by 7.5% of 2018 levels.
11. Any CPC to whom para 5-10 do not apply and whose catches exceeded the threshold limits in any subsequent year (from 2017), shall reduce their catches to the levels prescribed for that particular gear as mentioned in paragraphs 5, 6, 7 and 8.
12. Flag States will determine appropriate methods for achieving these catch reductions, which could include capacity reductions, effort limits, *etc.*, and will report to the IOTC Secretariat in their Implementation Report every year.

Over catch of annual limit

13. If over-catch of an annual limit for a given fleet of a CPC listed in paragraph 5 to 10 occurs, catch limits for that fleet shall be reduced as follows:
 - a. If the accumulated catch in 2017, 2018 and 2019 exceeds the sum of the catch limit¹ for 2017, 2018 and 2019 the excess (over-catch) shall be deducted from the 2021 catch limit.
 - b. For 2020 and following years, 100% of that over-catch shall be deducted from the following two years limit; unless
 - c. Over-catch for that fleet has occurred in two or more consecutive years, in which case 125% of the over-catch shall be deducted from the following two years limit.
14. CPCs shall inform the Commission via the IOTC Compliance Committee, any reductions in the following year because of over catch in paragraph 13 in their implementation Report.
15. The revised limits will apply in the following year and CPCs compliance shall be assessed against the revised limits reported to the IOTC Compliance Committee.

Supply Vessels

16. CPCs shall gradually reduce supply vessels² by 31 December 2022 as specified below in (a), (b), and (c). Flag States shall submit the status of reducing the use of supply vessel as part of the report of Implementation to the Compliance Committee.
 - a) From 1 January 2018 to 31 December 2019: 1 supply vessel in support of not less than 2 purse seiners, all of the same flag State³.
 - b) From 1 January 2020 to 31 December 2020: 2 supply vessels in support of not less than 5 purse seiners, all of the same flag State³.
 - c) No CPC is allowed to register any new or additional supply vessel on the IOTC Record of Authorized Vessels after 31 December 2017.
17. A single purse seine vessel shall not be supported by more than one single supply vessel of the same flag State at any point of time.
18. Complementary to Resolution 15/08 (superseded by Resolution 17/08, then by Resolution 18/08, then by Resolution 19/02) and to Resolution 15/02, CPC flag States shall report annually before the 1 January for the coming year of operations which Purse seiners are served by each supply vessel. This information will be published on IOTC website so as to be accessible to all CPCs and is mandatory.
19. CPCs shall report by 1 March 2019, the number of FADs that were deployed in 2018 and 2019 by purse seine vessels and associated supply vessels per 1°x1° grid.

¹ Catch of Indonesia is based on the national reports submitted to the Scientific Committee

² For the purpose of this resolution, the term “supply vessel” includes “support vessel”

³ The subparagraphs (a) and (b) shall not apply to flag States which use only one supply vessel



Gillnet

20. Without prejudice to Article 16 of the IOTC Agreement, CPCs shall encourage phasing out or convert gillnet fishing vessels to other gears, considering the huge ecological impact of these gears and fast track the implementation of Resolution 17/07 *On the Prohibition to use large-scale driftnets in the IOTC*.
21. CPCs shall set their gillnets at 2m depth from the surface in gillnet fisheries by 2023 to mitigate ecological impacts of gillnets.
22. CPCs are encouraged to increase their observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human) verified by the IOTC Scientific Committee by 2023.
23. CPCs shall report the level of implementation of para 21 - 23 to the IOTC Commission via the Compliance Committee.

Administration

24. The IOTC Secretariat, under advice of the Scientific Committee, shall prepare and circulate a table of allocated catch limits disaggregated as per the conditions set out in paragraphs 5 – 10 for preceding year, in December of the current year.
25. CPCs shall monitor the yellowfin tuna catches from their vessels in conformity with Resolution 15/01 *On the recording of catch and effort data by fishing vessels in the IOTC area of competence* and Resolution 15/02 *Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non Contracting Parties (CPCs)* and will provide a summary of most-recent yellowfin catches for the consideration of the IOTC Compliance Committee.
26. For the purposes of the implementation of this resolution, CPCs shall submit their catches of yellowfin disaggregated for vessel 24 m overall length and over, and those under 24 m if they fish outside the EEZ as per resolution 15/02.
27. Each year, the Compliance Committee shall evaluate the level of compliance with the reporting obligations and the catch limits deriving from this Resolution and shall make recommendations to the Commission accordingly.
28. The Scientific Committee via its Working Party on Tropical Tunas shall implement the “Workplan to improve current assessment of yellowfin tuna” and shall advise the Commission the financial and administrative requirements to further strengthen the work undertaken to minimize the issues and complexities regarding yellowfin tuna stock assessment.
29. The Scientific Committee via its Working Party on Tropical Tunas shall in 2019 undertake an evaluation of the effectiveness of the measures detailed in this Resolution, taking into account all sources of fishing mortality possible aiming at returning and maintaining biomass levels at the Commission’s target level.
30. This Resolution supersedes IOTC Resolution 18/01 *On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock*.

RESOLUTION 19/02

PROCEDURES ON A FISH AGGREGATING DEVICES (FADS) MANAGEMENT PLAN

Keywords: FAD, active instrumented buoy.

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

NOTING that the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by sub-regional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECOGNISING that Fish Aggregating Devices under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

GIVEN that the activities of supply vessels and the use of Fish Aggregating Devices (FAD) are an integral part of the fishing effort exerted by the purse seine fleet;

AWARE that the Commission is committed to adopt Conservation and Management Measures to reduce juvenile Bigeye tuna and Yellowfin tuna mortalities from fishing effort on Fish Aggregating Devices (FADs);

RECALLING that [Resolution 12/04](#) established that the Commission at its annual session in 2013 should consider the recommendations of the IOTC Scientific Committee as regards the development of improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials, together with socio-economic considerations, with a view to adopting further measures to mitigate interactions with marine turtles in fisheries covered by the IOTC Agreement;

RECALLING that Resolution 13/08 [superseded by Resolution 15/08, by Resolution 17/08, by Resolution 18/08 and then by [Resolution 19/02](#)] established procedures on a fish aggregating device (FAD) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species;

NOTING that the IOTC Scientific Committee advised the Commission that only non-entangling FADs, both drifting and anchored, should be designed and deployed to prevent the entanglement of sharks, marine turtles and other species;

NOTING that the IOTC Scientific Committee advised the Commission to conduct an investigation of the feasibility and impacts of a temporary FAD closure as well as other measures in the context of Indian Ocean fisheries and stocks;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the mentioned Agreement and encouraging sustainable development of fisheries based on such stocks and minimising the level of bycatch;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. Definitions

For the purpose of this Resolution:

- a) Fish Aggregating Device (FAD) means a permanent, semi-permanent or temporary object, structure or device of any material, man-made or natural, which is deployed and/or tracked, for the purpose of aggregating target tuna species for consequent capture.
 - b) Drifting Fish Aggregating Devices (DFADs) means a FAD not tethered to the bottom of the ocean. A DFAD typically has a floating structure (such as a bamboo or metal raft with buoyancy provided by buoys, corks, etc.) and a submerged structure (made of old netting, canvass, ropes, etc.).
 - c) Anchored Fish Aggregating Devices (AFADs) means a FAD tethered to the bottom of the ocean. It usually consists of a very large buoy and anchored to the bottom of the ocean with a chain.
 - d) Instrumented buoy means a buoy with a clearly marked with a unique reference number allowing identification of its owner and equipped with a satellite tracking system to monitor its position.
 - e) Operational buoy means any instrumented buoy, previously activated, switched on and deployed at sea on a drifting FAD or log, which transmit position and any other available information such as eco-sounder estimates.
 - f) Activation of a buoy means the act of initializing satellite communication service, which is done by the buoy supplier company at the request of the vessel owner or manager.
 - g) Deactivation of a buoy means the act of cancelling satellite communications service, which is done by the buoy supplier company at the request of the vessel owner or manager.
 - h) Buoy owner means any legal or natural person, entity or branch, who is paying for the communication service for the buoy associated with a FAD, and/or who is authorized to receive information from the satellite buoy, as well as to request its activation and/or deactivation.
 - i) Reactivation: the act of re-enabling satellite communications services by the buoy supplier company at the request of the buoy owner or manager.
 - j) Buoy in stock means an instrumented buoy acquired by the owner which has not been made operational.
2. This Resolution shall apply to CPCs having purse seine vessels and fishing on Drifting Fish Aggregating Devices (DFADs), equipped with instrumented buoys for the purpose of aggregating target tuna species, in the IOTC area of competence. Only purse seiners and associated supply or support vessels are allowed to deploy DFADs in the IOTC Area of Competence.
 3. This resolution requires the use of instrumented buoy, as per the above definition, on all DFADs and prohibits the use of any other buoys, such as radio buoys, not meeting this definition.
 4. This Resolution sets the maximum number of operational buoys followed by any purse seine vessel at 300 at any one time. The number of instrumented buoys that may be acquired annually for each purse seine vessel is set at no more than 500. No purse seine vessel shall have more than 500 instrumented buoys (buoy in stock and operational buoy) at any time. An instrumented buoy shall be made operational only when physically present on board the purse-seine vessel to which it belongs or its associated supply or support vessel, and the event shall be recorded in the appropriate logbook, specifying the instrumented buoy unique identification number and the date, time and geographical coordinates of its deployment.
 5. A CPC may adopt a lower limit than the one set out in paragraph 4 for vessels flying its flag. Further, any CPC may adopt a lower limit for DFADs deployed in its EEZ than that stated in paragraph 4. The CPC shall review the adopted limit to ensure that such limit is not more than the limit fixed by the Commission.
 6. CPCs shall ensure that as from the effective date of this Resolution, each of its purse seiners already in operation does not exceed the maximum number of operational and instrumented buoys at any one time as set out in paragraph 4.

7. All purse seine vessel, supply or support vessel shall declare to its respective CPC, the number of instrumented buoys onboard, including each unique identifier of the instrumented buoy before and after each fishing trip.
8. Reactivation of an instrumented buoy shall only be possible once it has been brought back to port, either by the vessel tracking the buoy/ associated supply or support vessel or by another vessel and has been authorized by the CPC.
9. Notwithstanding the completion of any study undertaken at the request of the Commission including the study to be undertaken by the Working Group adopted at [Resolution 15/09](#) in relation to FADs, the Commission may review the maximum number of instrumented buoys set out in paragraph 4.
10. CPCs shall require vessels flying their flag and fishing on DFADs to annually submit the number of operational buoys followed by vessel, lost and transferred (total number of DFADs tagged at sea, by deploying an instrumented buoy on a log or another vessel DFAD already in the water) by 1° by 1° grid area and month strata and DFAD type under the confidentiality rules set by [Resolution 12/02](#) (or any subsequent superseding Resolution).
11. All CPCs shall ensure that all fishing vessels as referred to in paragraph 2 shall record fishing activities in association with FADs using the specific data elements found in Annex III (DFAD) and Annex IV (AFAD) in the section of the “FAD-logbook”.
12. CPCs having vessels flying their flag and fishing on FADs shall submit, to the Commission, on an annual basis, Management Plans for the use of FADs. Due to their specificity in terms of users, type of boat/vessel involved, fishing method and gear used and materials used in their construction, the Management Plans and Reporting Requirements for Drifting FADs (DFAD) and Anchored FADs (AFAD) shall be addressed separately for the purposes of this Resolution. The Plans shall at a minimum follow the Guidelines for Preparation for FAD Management Plans by each CPC as provided for DFADs in Annex I and AFADs in Annex II.
13. The Management Plans shall be analysed by the IOTC Compliance Committee.
14. The Management Plans shall include initiatives or surveys to investigate, and to the extent possible minimise the capture of small bigeye tuna and yellowfin tuna and non-target species associated with fishing on FADs. Management Plans shall also include guidelines to prevent, to the extent possible, the loss or abandonment of FADs.
15. In addition to the Management Plans, all CPCs shall ensure that all fishing vessels flying their flag and fishing on FADs, including supply vessels, shall record fishing activities in association with FADs using the specific data elements found in Annex III (DFAD) and Annex IV (AFAD).
16. CPCs shall submit to the Commission, 60 days before the Annual Meeting, a report on the progress of the management plans of FADs, including, if necessary, reviews of the initially submitted Management Plans, and including reviews of the application of the principles set out in Annex III.

Non-entangling and biodegradable FADs

17. To reduce the entanglement of sharks, marine turtles or any other species, CPCs shall require their flagged vessels to use non-entangling designs and materials in the construction of FADs as outlined in Annex V.
18. To reduce the amount of synthetic marine debris, the use of natural or biodegradable materials in FAD construction should be promoted. CPCs shall encourage their flag vessels to use biodegradable FADs in accordance with the guidelines at Annex V with a view to transitioning to the use of biodegradable FADs, with the exception of materials used for the instrumented buoys, by their flag vessel from 1 January 2022. CPCs shall, from 1 January 2022, encourage their flag vessels to remove from the water, retain onboard and only dispose of in port, all traditional FADs encountered (e.g. those made of entangling materials or designs). The reference year prescribed above shall be reviewed in light of the Scientific Committee’s recommendation pursuant to [Resolution 18/04](#) On BioFAD experimental project.
19. CPCs are encouraged to conduct trials using biodegradable materials to facilitate the transition to the use of only biodegradable material for DFADS construction by their flagged vessels. The results of such trials shall be

presented to the Scientific Committee who shall continue to review research results on the use of biodegradable material on FADs and shall provide specific recommendations to the Commission as appropriate.

FAD Marking

20. A new marking scheme shall be developed by the ad-hoc FAD working group and shall be considered by the Commission at its regular annual session in 2020.
21. Until the marking scheme referred to in paragraph 20 is adopted, CPCs shall ensure that the instrumented buoy attached to the DFAD contain a physical, unique reference number marking (ID provided by the manufacturer of the instrumented buoy) and the vessel unique IOTC registration number clearly visible.

Data reporting and analysis

22. CPCs shall submit the data elements prescribed in Annex III and Annex IV to the Commission, consistent with the IOTC standards for the provision of catch and effort data, and these data shall be made available for analysis to the IOTC Scientific Committee on the aggregation level set by [Resolution 15/02](#) (or any subsequent superseding Resolution), and under the confidentiality rules set by [Resolution 12/02](#) (or any subsequent superseding Resolution).
23. The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission, including recommendations on the number of FADs to be operated, the use of biodegradable materials in new and improved FADs design. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon or which have drifted outside the fishing zone).

FAD Tracking and Recovery Procedures

24. In order to support the monitoring of compliance with the limitation established in Paragraph 4, while protecting business confidential data, the instrumented buoy supplier company or the CPCs shall, starting 1 January 2020, report, or require their vessels to report, daily information on all active FADs to the Secretariat. Such information shall contain, date, instrumented buoy ID, assigned vessel and daily position, which shall be compiled at monthly intervals, to be submitted with a time delay of at least 60 days, but no longer than 90 days.
25. The Commission shall establish a DFAD tracking and recovery policy at its annual session in 2021, on the basis of recommendations from the ad-hoc FAD working group. The policy shall define DFAD tracking, reporting of lost DFADs, arrangements to alert coastal States of derelict/lost DFADs at risk of beaching in near real-time, how and who recovers the DFADs, how the recovery costs are collected and shared.
26. The IOTC Secretariat shall submit a report, on an annual basis, to the IOTC Compliance Committee on the level of compliance of each CPC with operational buoy limits, annual limits of instrumented buoys purchased.
27. This resolution shall be reviewed by the Commission, at the latest, at its session in 2022, based on recommendations from the Scientific Committee.
28. This resolution shall enter into force on 1 January 2020.
29. Resolution 18/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species* is superseded by this Resolution.

ANNEX I

GUIDELINES FOR PREPARATION OF DRIFTING FISH AGGREGATING DEVICE (DFAD) MANAGEMENT PLANS

To support obligations in respect of the DFAD Management Plan (DFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to DFADs, DFAD–MP should include:

1. An objective
2. Scope
 - Description of its application with respect to:
 - vessel-types and support and tender vessels
 - DFAD numbers and DFADs beacon numbers to be deployed
 - reporting procedures for DFAD deployment
 - incidental bycatch reduction and utilisation policy
 - consideration of interaction with other gear types
 - plans for monitoring and retrieval of lost DFADs
 - statement or policy on “DFAD ownership”
3. Institutional arrangements for management of the DFAD Management Plans:
 - institutional responsibilities
 - application processes for DFAD and /or DFAD beacons deployment approval
 - obligations of vessel owners and masters in respect of DFAD and /or DFAD beacons deployment and use
 - DFAD and/or DFADs beacons replacement policy
 - reporting obligations
4. DFAD construction specifications and requirements:
 - DFAD design characteristics (a description)
 - DFAD markings and identifiers, including DFADs beacons
 - lighting requirements
 - radar reflectors
 - visible distance
 - radio buoys (requirement for serial numbers)
 - satellite transceivers (requirement for serial numbers)
5. Applicable areas:
 - Details of any closed areas or periods e.g. territorial waters, shipping lanes, proximity to artisanal fisheries, etc.
6. Applicable period for the DFAD–MP.
7. Means for monitoring and reviewing implementation of the DFAD–MP.
8. DFAD logbook template (data to be collected specified in Annex III).

ANNEX II

GUIDELINES FOR PREPARATION OF ANCHORED FISH AGGREGATING DEVICE (AFAD) MANAGEMENT PLANS

To support obligations in respect of the AFAD Management Plan (AFAD–MP) to be submitted to the IOTC Secretariat by CPCs with fleets fishing in the IOTC area of competence, associated to AFADs, AFAD– MP should include:

1. An objective
2. Scope:
 - Description of its application with respect to:
 - a) vessel types
 - b) AFAD numbers and/or AFADs beacons numbers to be deployed (per AFAD type)
 - c) reporting procedures for AFAD deployment
 - d) distances between AFADs
 - e) incidental bycatch reduction and utilisation policy
 - f) consideration of interaction with other gear types
 - g) the establishment of inventories of the AFADs deployed, detailing AFAD identifiers, characteristics and equipment of each AFAD as laid down in point 4 of the present Annex, coordinates of the AFAD's mooring sites, date of set, lost and reset
 - h) plans for monitoring and retrieval of lost AFADs
 - i) statement or policy on “AFAD ownership”
3. Institutional arrangements for management of the AFAD Management Plans:
 - a) institutional responsibilities
 - b) regulations applicable to the setting and use of AFADs
 - c) AFAD repairs, maintenance rules and replacement policy
 - d) data collection system
 - e) reporting obligations
4. AFAD construction specifications and requirements:
 - a) AFAD design characteristics (a description of both the floating structure and the underwater structure, with special emphasis on any netting materials used)
 - b) anchorage used for mooring
 - c) AFAD markings and identifiers, including AFAD beacons if any
 - d) lighting requirements if any
 - e) radar reflectors
 - f) visible distance
 - g) radio buoys if any (requirement for serial numbers)
 - h) satellite transceivers (requirement for serial numbers)
 - i) echo sounder
5. Applicable areas:
 - a) coordinates of mooring sites, if applicable
 - b) details of any closed areas e.g., shipping lanes, Marine Protected Areas, reserves etc.
6. Means for monitoring and reviewing implementation of the AFAD–MP.
7. AFAD logbook template (data to be collected specified in Annex IV).



ANNEX III DATA COLLECTION FOR DFADS

- a) For each activity on a DFAD, whether followed by a set or not, each fishing, support and supply vessel to report the following information:
 - i. Vessel (name and registration number of the fishing, support or supply vessel)
 - ii. Position (as the geographic location of the event (Latitude and Longitude) in degrees and minutes)
 - iii. Date (as DD/MM/YYYY, day/month/year)
 - iv. DFAD identifier (DFAD or beacon ID)
 - v. DFAD type (drifting natural FAD, drifting artificial FAD),
 - vi. DFAD design characteristics
 - Dimension and material of the floating part and of the underwater hanging structure
 - vii. Type of the activity, (visit deployment, hauling, retrieving, loss, intervention to service electronic equipment).

- b) 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. CPCs to report this data aggregated per vessel at 1*1 degree (where applicable) and monthly to the Secretariat



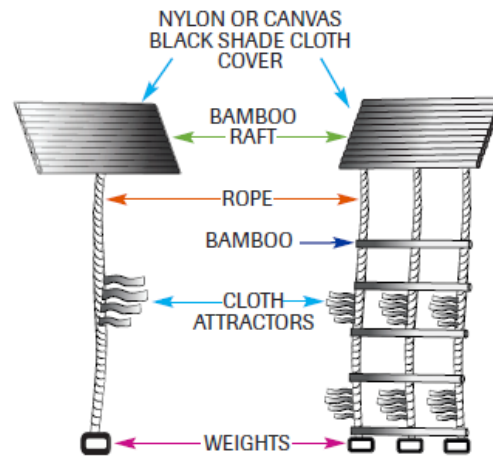
ANNEX IV DATA COLLECTION FOR AFADS

- a) Any activity around an AFAD.
- b) For each activity on an AFAD (repair, intervention consolidation, etc.), whether followed or not by a set or other fishing activities, the,
 - i. Position (as the geographic location of the event (Latitude and Longitude) in degrees and minutes)
 - ii. Date (as DD/MM/YYYY, day/month/year)
 - iii. AFAD identifier (i.e. AFAD Marking or beacon ID or any information allowing to identify the owner).
- c) If the visit is followed by a set or other fishing activities, the results of the set in terms of catch and bycatch, whether retained or discarded dead or alive.

ANNEX V

PRINCIPLES FOR DESIGN AND DEPLOYMENT OF FADS

EXAMPLE OF NON-ENTANGLING FAD



1. The surface structure of the FAD shall not be covered, or only covered with non-meshed material
2. If a sub-surface component is used, it shall not be made from netting but from non-meshed materials such as ropes or canvas sheets.

RESOLUTION 19/03
ON THE CONSERVATION OF MOBULID RAYS CAUGHT IN ASSOCIATION WITH FISHERIES IN THE
IOTC AREA OF COMPETENCE

Keywords: Mobula Rays, Manta Rays, Conservation,

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING [Resolution 12/01](#) *On the implementation of the Precautionary Approach* calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties to apply the precautionary approach when managing tuna and tuna-like species in accordance with Article 5 of the United Nations Fish Stocks Agreement and that, for sound fisheries management, such an approach applies also within areas under national jurisdiction;

RECALLING IOTC Resolution 05/05 *Concerning the conservation of sharks caught in association with fisheries managed by IOTC* [superseded by [Resolution 17/05](#)];

CONSIDERING that the species of the family Mobulidae, which includes manta rays and mobula rays (hereinafter mobulid rays), are extremely vulnerable to overfishing as they are slow-growing, late sexual maturity, have long gestation periods, and often give birth to only a few pups;

RECOGNISING the ecological and cultural significance of mobulid rays in the Indian Ocean;

CONCERNED about the possible impacts on these species by the different fisheries occurring from coastal areas to the high seas;

CONSIDERING that the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Sharks calls on States to cooperate through regional fisheries management organizations to ensure the sustainability of shark stocks;

CONCERNED by the lack of complete and accurate data reporting concerning fishing activities on non-targeted species;

RECOGNIZING the need to improve the collection of species-specific data on catch, catch rates, release, discards, and trade as a basis for improving the conservation and management of mobulid rays stocks;

NOTING that the mobulid rays are listed in Appendix I and Appendix II of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) and the range States to a migratory species shall endeavour to strictly protect them;

FURTHER NOTING that the mobulid rays are also listed in Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) for which trade shall be closely controlled under specific conditions including, inter alia, that trade will not be detrimental to the survival of the species in the wild;

ACKNOWLEDGING that the Scientific Committee (SC21) recently noted the declines of these species across the Indian Ocean and RECOMMEND that management actions, such as no-retention measures amongst other, are required and must be immediately adopted;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. This Resolution shall apply to all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party (hereinafter referred to collectively as CPCs), and on the IOTC record of fishing vessels or authorized to fish for tuna and tuna like species managed by the IOTC.
2. CPCs shall prohibit all vessels from intentionally setting any gear type for targeted fishing of mobulid rays in the IOTC Area of Competence, if the animal is sighted prior to commencement of the set.

3. CPCs shall prohibit all vessels retaining onboard, transshipping, landing, storing, any part or whole carcass of mobulid rays caught in the IOTC Area of Competence.
4. Provisions of paragraphs 2 and 3 above do not apply to fishing vessels carrying out subsistence fishery²⁴ that, anyhow, shall not be selling or offering for sale any part or whole carcass of mobulid rays.
5. CPCs shall require all their fishing vessels, other than those carrying out subsistence fishery, to promptly release alive and unharmed, to the extent practicable, mobulid rays as soon as they are seen in the net, on the hook, or on the deck, and do it in a manner that will result in the least possible harm to the individuals captured. The handling procedures detailed in Annex I, while taking into consideration the safety of the crew shall be implemented and followed.
6. Notwithstanding paragraph 3, in the case of mobulid rays that are unintentionally caught by and frozen as part of a purse seine vessel's operation, the vessel must surrender the whole mobulid ray to the responsible governmental authorities, or other competent authority, or discard them at the point of landing. Mobulid rays surrendered in this manner may not be sold or bartered but may be donated for purposes of domestic human consumption.
7. Notwithstanding paragraph 3, in the case of mobulid rays that are unintentionally caught by artisanal fishing²⁵, the vessel should report the information on the accidental catch to the responsible governmental authorities, or other competent authority, at the point of landing. Mobulid rays unintentionally caught may only be used for purposes of local consumption. This derogation will expire in 1 January 2022.
8. CPCs shall report the information and data collected on interactions (i.e. number of discards and releases) with mobulid rays by vessels through logbooks and/or through observer programs. The data shall be provided to the IOTC Secretariat by 30 June of the following year, and according to the timelines specified in Resolution 15/02 (or any subsequent revision).
9. CPCs shall ensure that fishermen are aware of and use proper mitigation, identification, handling and releasing techniques and keep on board all necessary equipment for the release of mobulid rays in accordance with the handling guidelines of Annex 1.
10. Recreational and sport fishing shall release alive all caught mobulid rays and shall not be entitled to retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of mobulid rays.
11. CPCs, unless clearly demonstrate that intentional and/or incidental catches of mobulids do not occur in their fisheries, shall develop, with the assistance from the IOTC Secretariat where required, sampling plans for the monitoring of the mobulid rays catches by the subsistence and artisanal fisheries. The sampling plans, including their scientific and operational rationale, shall be reported in the national scientific reports to the Scientific Committee, starting in 2020, which will provide its advice on their soundness by 2021 at the latest. The sampling plans, where required, will be implemented by the CPCs from 2022 onward taking into account the Scientific Committee advice.
12. CPCs are encouraged to investigate at-vessel and post-release mortality in mobulids including, but not exclusively, the application of satellite tagging programs that may be provisioned primarily through the national support complementing possible funds allocation from the IOTC to investigate the effectiveness of this measure.
13. The IOTC Scientific Committee shall review the status of *Mobula spp.* in the IOTC Area of Competence and provide management advice to the Commission in 2023 also to identify possible hot-spots for conservation and management of mobulids within and beyond EEZs. Moreover, the IOTC Scientific Committee is requested to provide, whenever considered adequate on the basis of evolving knowledge and scientific advice, further improvements to the handling procedures detailed in Annex 1.

²⁴ A subsistence fishery is a fishery where the fish caught are consumed directly by the families of the fishers rather than being bought by middle-(wo)men and sold at the next larger market, per the FAO Guidelines for the routine collection of capture fishery data. FAO Fisheries Technical Paper. No. 382. Rome, FAO. 1999. 113p.

²⁵ Artisanal fishing: fisheries other than longline or surface fisheries (i.e. purse seines, pole & line, gillnet fisheries, hand-line and trolling vessels), registered in the IOTC Record of Authorized Vessels (DEFINITION in footnote 1 of Res. 15/02).



14. Scientific observers shall be allowed to collect biological samples of mobulid rays caught in the IOTC Area of Competence that are dead at haul-back, provided that the samples are a part of a research project approved by the IOTC Scientific Committee. In order to obtain the approval, a detailed document outlining the purpose of the work, number of samples intended to be collected and the spatio-temporal distribution of the sampling effect must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the SC.



ANNEX 1

Live release handling procedures

1. Prohibit the gaffing of rays.
2. Prohibit the lifting of rays by the gill slits or spiracles.
3. Prohibit the punching of holes through the bodies of rays (e.g. to pass a cable through for lifting the ray).
4. Rays too large to be lifted safely by hand shall be, to the extent possible, brailed out of the net using best available method such as those recommended in document IOTC-2012-WPEB08-INF07.
5. Large rays that cannot be released safely before being landed on deck, shall be returned to the water as soon as possible, preferably utilizing a ramp from the deck connecting to an opening on the side of the boat, or if no such ramp is available, lowered with a sling or net.

RESOLUTION 19/04

CONCERNING THE IOTC RECORD OF VESSELS AUTHORISED TO OPERATE IN THE IOTC AREA OF COMPETENCE

Keywords: Authorised vessels; active vessels; auxiliary, supply and support vessels; IMO number; IUU fishing vessels.

The Indian Ocean Tuna Commission (IOTC),

RECALLING that IOTC has been taking various measures to prevent, deter and eliminate the IUU fisheries conducted by large-scale tuna fishing vessels;

FURTHER RECALLING that IOTC adopted the [Resolution 01/06](#) *Concerning the IOTC Bigeye Tuna Statistical Document Programme* at its 2001 meeting;

FURTHER RECALLING that IOTC adopted the Resolution 01/02 [superseded by Resolution 13/02, then Resolution 14/04, then Resolution 15/04, then Resolution 19/04] *Relating to control of fishing activities* at its 2001 meeting;

NOTING that large-scale fishing vessels are highly mobile and easily change fishing grounds from one ocean to another, and have high potential to operate in the IOTC area of competence without timely registration with the Commission;

NOTING that supply or support vessels can increase the fishing capacity of purse seine vessels in an uncontrolled manner by setting fish aggregating devices [in areas closed to fishing];

RECALLING that the FAO Council adopted on 23 June 2001 an International Plan of Action aiming to prevent, to deter and to eliminate illegal, unregulated and unreported fishing (IPOA), that this plan stipulates that the regional fisheries management organisations should take action to strengthen and develop innovative ways, in conformity with international law, to prevent, deter and eliminate IUU fishing and in particular to establish records of vessels authorised and records of vessels engaged in IUU fishing;

RECALLING that the IOTC Record of Authorised Vessels was established by the Commission on 1 July 2003, via Resolution 02/05 *Concerning the establishment of an IOTC record of vessels authorised to operate in the IOTC area of competence* [superseded by Resolution 05/02, then Resolution 07/02, then Resolution 13/02, then Resolution 14/04, then Resolution 15/04, then Resolution 19/04];

RECOGNISING the need to take further measures to effectively eliminate the IUU large scale tuna fishing vessels;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The Commission shall maintain an IOTC Record of fishing vessels that are:
 - a) 24 metres in length overall or above; or
 - b) in case of vessels less than 24 meters, those operating in waters outside the Economic Exclusive Zone of the flag State; and that are authorised to fish for tuna and tuna-like species in the IOTC area of competence (hereinafter referred to as 'authorised fishing vessels', or AFVs).
2. For the purpose of this Resolution, fishing vessels including auxiliary, supply and support vessels that are not entered in the IOTC Record are deemed not to be authorised to fish for, retain on board, tranship or land tuna and tuna-like species or supporting any fishing activity or set drifting fish aggregation devices (DFADs) in the IOTC area of competence. This provision shall not apply to vessels less than 24 m in length overall operating inside the EEZ of the flag State.
3. Each Contracting Party and Cooperating Non-Contracting Party (hereinafter referred to as "CPC") shall submit electronically, to the IOTC Executive Secretary for those vessels referred to 1(a) and for those vessels referred



to 1(b), the list of its AFVs that are authorised to operate in the IOTC area of competence. This list shall include the following information:

- a) Name of vessel(s), and national register number(s) or EU registration (CFR) number;
 - b) IMO number (if eligible under IMO requirements);
 - c) To allow the necessary time for CPCs to obtain an IMO number for eligible vessels that do not already have one, this paragraph is effective as of 1 January 2016. For vessels of less than 100 GT that are at least 12 metres in length overall, the requirement in this paragraph is effective as of 1 January 2020, CPCs shall ensure that all their fishing vessels that are registered on the IOTC Record of fishing vessels have IMO numbers issued to them in line with IMO Assembly Resolution A.1117(30). Paragraph 3(b) on IMO number does not apply to vessels which are not eligible to receive IMO numbers.
 - d) Previous name(s) (if any) or indicate non-availability;
 - e) Previous flag(s) (if any) or indicate non-availability;
 - f) Previous details of deletion from other registries (if any) or indicate non-availability;
 - g) International radio call sign(s) (if any) or indicate non-availability;
 - h) Port of Registration;
 - i) Type of vessel(s), length overall (m) and gross tonnage (GT);
 - j) Total volume of fish hold(s) (in m³). This requirement will be effective from 1 January 2022;
 - k) Name and address of owner(s) and operator(s);
 - l) Name and address of beneficial owner(s), if known and different from vessel owner/operator or indicate non-availability;
 - m) Name and address of company operating the vessel and company registration number (if any);
 - n) Gear(s) used;
 - o) Time period(s) authorised for fishing and/or transshipping;
 - p) Colour photographs of the vessel showing:
 - i. the starboard side and portside of the vessel, each showing the whole structure;
 - ii. the bow of the vessel;
 - iii. at least one of the photographs clearly showing at least one of the external markings specified in 3(a).
4. For vessels not authorized to operate outside the EEZ of the flag CPC, requirement 3(p) will be effective after 1 January 2022.
5. If any of the information in paragraph 3 is not submitted, the vessel shall not be included in the IOTC Record. The Commission shall take into account exceptional circumstances in which a vessel owner is not able to obtain an IMO number despite following the appropriate procedures. Flag CPCs shall report any such exceptional situations to the IOTC Secretariat.
6. All CPCs which issue authorisations to fish to their flag vessels to fish for species managed by the IOTC shall submit to the IOTC Executive Secretary, an updated template of the official authorisation to fish outside National jurisdictions, and update this information whenever this information changes. This information includes:
- a) name of the Competent Authority;
 - b) name and contact of personnel of the Competent Authority;
 - c) signature of the personnel of the Competent Authority;
 - d) official stamp of the Competent Authority.



7. The IOTC Executive Secretary shall publish the above information in a secure part on the IOTC website for MCS purpose.
8. The template in paragraph 6 shall be used exclusively for monitoring, control and surveillance purposes and a difference between the template and the authorisation carried onboard the vessel does not constitute an infraction, but will prompt the controlling State to clarify the issue with the identified Competent Authority of the flag State of the vessel in question.
9. Each CPC shall promptly notify, after the establishment of their initial IOTC Record, the IOTC Executive Secretary of any addition to, any deletion from and/or any modification of the IOTC Record at any time such changes occur.
10. The IOTC Executive Secretary shall maintain the IOTC Record, and take any measure to ensure publicity of the Record through electronic means, including placing it on the IOTC website, in a manner consistent with confidentiality requirements noted by CPCs.
11. The flag CPCs of the vessels on the record shall:
 - a) authorise their vessels to operate in the IOTC area of competence only if they are able to fulfil in respect of these vessels the requirements and responsibilities under the IOTC Agreement and its Conservation and Management Measures;
 - b) take necessary measures to ensure that their AFVs comply with all the relevant IOTC Conservation and Management Measures;
 - c) take necessary measures to ensure that their AFVs on the IOTC Record keep on board valid certificates of vessel registration and valid authorisation to fish and/or tranship;
 - d) ensure that their AFVs on the IOTC Record have no history of IUU fishing activities or that, if those vessels have such a history, the new owners have provided sufficient evidence demonstrating that the previous owners and operators have no legal, beneficial or financial interest in, or control over those vessels; the parties of the IUU incident have officially resolved the matter and sanctions have been completed; or that having taken into account all relevant facts, their AFVs are not engaged in or associated with IUU fishing;
 - e) ensure, to the extent possible under domestic law, that the owners and operators of their AFVs on the IOTC Record are not engaged in or associated with tuna fishing activities conducted by vessels not entered into the IOTC Record in the IOTC area of competence;
 - f) take necessary measures to ensure, to the extent possible under domestic law, that the owners of the AFVs on the IOTC Record are citizens or legal entities within the flag CPCs so that any control or punitive actions can be effectively taken against them.
12. CPCs shall review their own internal actions and measures taken pursuant to paragraph 11, including punitive actions and sanctions and, in a manner consistent with domestic law as regards disclosure, report the results of the review to the Commission annually. In consideration of the results of such review, the Commission shall, if appropriate, request the flag CPCs of AFVs on the IOTC Record to take further action to enhance compliance by those vessels with IOTC Conservation and Management Measures.
13. a) CPCs shall take measures, under their applicable legislation, to prohibit the fishing for, the retaining on board, the transshipment and landing of tuna and tuna-like species by the vessels which are not entered into the IOTC Record.
 - b) To ensure the effectiveness of the IOTC Conservation and Management Measures pertaining to species covered by Statistical Document Programs:
 - (i) Flag CPCs shall validate statistical documents only for the vessels on the IOTC Record;
 - (ii) CPCs shall require that the species covered by Statistical Document Programs caught by AFVs in the IOTC area of competence, when imported into the territory of a Contracting Party, be accompanied by statistical documents validated for the vessels on the IOTC Record; and
 - (iii) CPCs importing species covered by Statistical Document Programs and the flag States of vessels shall cooperate to ensure that statistical documents are not forged or do not contain

misinformation.

14. Each CPC shall notify the IOTC Executive Secretary of any factual information showing that there are reasonable grounds for suspecting vessels not on the IOTC Record to be engaged in fishing for and/or transshipment of tuna and tuna-like species in the IOTC area of competence.
15. a) If a vessel mentioned in paragraph 14 is flying the flag of a CPC, the IOTC Executive Secretary shall request that Party to take measures necessary to prevent the vessel from fishing for tuna and tuna-like species in the IOTC area of competence;
b) If the flag of a vessel mentioned in paragraph 14 cannot be determined or is of a non-Contracting Party without cooperating status, the IOTC Executive Secretary shall compile and circulate such information to all CPCs, without delay.
16. The Commission and the CPCs concerned shall communicate with each other, and make the best effort with FAO and other relevant regional fishery management bodies to develop and implement appropriate measures, where feasible, including the establishment of records of a similar nature in a timely manner so as to avoid adverse effects upon tuna resources in other oceans. Such adverse effects might consist of excessive fishing pressure resulting from a shift of the IUU fishing vessels from the Indian Ocean to other oceans.
17. Each Contracting Party and Cooperating Non-Contracting Party with the IOTC shall:
 - a) Ensure that each of its fishing vessels carry on board documents issued and certified by the competent authority of that Contracting Party or of that Cooperating Non-Contracting Party with IOTC, including, at a minimum, the following:
 - (i) License, permit or authorisation to fish and terms and conditions attached to the licence, permit of authorisation;
 - (ii) Vessel name;
 - (iii) Port in which registered and the number(s) under which registered;
 - (iv) International call sign;
 - (v) Names and addresses of owner(s) and where relevant, the charterer;
 - (vi) Overall length;
 - (vii) Engine power, in KW/horsepower, where appropriate.
 - b) Verify above documents on a regular basis and at least every year;
 - c) Ensure that any modification to the documents and to the information referred to in 17.a) is certified by the competent authority of that Contracting Party or of that Cooperating Non-Contracting Party with the IOTC.
18. Each Contracting Party and Cooperating Non-Contracting Party with the IOTC shall ensure that its fishing vessels authorised to fish in the IOTC area of competence are marked in such a way that they can be readily identified with generally accepted standards such as the FAO Standard Specification for the Marking and Identification of Fishing vessels.
19. Each Contracting Party and Cooperating Non-Contracting Party with the IOTC shall ensure that:
 - a) Each gear used by its fishing vessels authorised to fish in the IOTC area of competence is marked appropriately, e.g., the ends of nets, lines and gear in the sea, shall be fitted with flag or radar reflector buoys by day and light buoys by night sufficient to indicate their position and extent;
 - b) Marker buoys and similar objects floating and on the surface, and intended to indicate the location of fixed fishing gear, shall be clearly marked at all time with the letter(s) and/or number(s) of the vessel to which they belong;
 - c) Fish aggregating devices shall be clearly marked at all time with the letter(s) and / or number(s) of the vessel to which they belong.
20. Each Contracting Party and Cooperating Non-Contracting Party with the IOTC shall ensure that all their respective fishing vessels of 24 meters or above and vessels less than 24 meters if fishing outside their EEZ,



and are registered on the IOTC Record of fishing vessels and authorised to fish in the IOTC area of competence, keep a bound fishing national logbook with consecutively numbered pages. The original recordings contained in the fishing logbooks shall be kept on board the fishing vessel for a period of at least 12 months.

21. This Resolution supersedes Resolution 15/04 *Concerning the establishment of an IOTC record of vessels authorised to operate in the IOTC area.*

RESOLUTION 19/05

ON A BAN ON DISCARDS OF BIGEYE TUNA, SKIPJACK TUNA, YELLOWFIN TUNA, AND NON-TARGETED SPECIES CAUGHT BY PURSE SEINE VESSELS IN THE IOTC AREA OF COMPETENCE

Keywords: Bigeye, yellowfin, skipjack, discards, purse seine

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage bigeye tuna, skipjack tuna and yellowfin tuna in the IOTC area of competence;

RECOGNISING that the international community has recognised both ethical concerns and policy regarding discards of species in several international instruments and statements, including United Nations General Assembly resolutions (A/RES/49/118 (1994); A/RES/50/25 (1996); A/RES/51/36 (1996); A/RES/52/29 (1997); A/RES/53/33 (1998); A/RES/55/8 (2000); and A/RES/57/142 (2002)), United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea (UNCLOS) relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (United Nations Fish Stocks Agreement); The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995; the Code of Conduct for Responsible Fisheries, the FAO International Plan of Action (IPOA) on sharks; the Convention on Biological Diversity (CBD);

RECALLING that the United Nations Fish Stocks Agreement has underlined the importance of ensuring the conservation and optimum utilisation of highly migratory species through the action of regional fishery bodies such as the IOTC, and provides that “*States should minimize ... discards, ..., catch of non target species, both fish and non-fish species, and impacts on associated or dependent species, in particular endangered species...*”;

RECALLING that The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995, provides that “*States should...reduce bycatches, fish discards...*”;

RECALLING that the FAO Code of Conduct for Responsible Fisheries provides that “*States should take appropriate measures to minimize waste, discards...collect information on discards ...; ... take account of discards (in the precautionary approach) ...; develop technologies that minimize discards ...; use of selective gear to minimize discards*”;

RECALLING that the Commission adopted [Resolution 12/01](#) *On the implementation of the precautionary approach*;

CONCERNED about the morally unacceptable waste and the impact of unsustainable fishing practices upon the oceanic environment, represented by the discarding of tunas and non-target species in the purse seine fishery for tunas in the Indian Ocean;

CONSIDERING the important volume of tuna and non-targeted species discarded in the purse seine fishery for tunas in the Indian Ocean;

CONSIDERING the Millennium Development Goals, particularly Goal Number 2 aims to “end hunger, achieve food security and improved nutrition and promote sustainable agriculture”.

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

RETENTION OF TARGETED TUNA SPECIES

1. Contracting Parties and Cooperating Non-Contracting Parties shall require all purse seine vessels to retain on board and then land all bigeye tuna, skipjack tuna, and yellowfin tuna caught, except fish considered unfit for human consumption as defined in paragraph 4b (i).

RETENTION OF NON-TARGETED SPECIES

2. Contracting Parties and Cooperating Non-Contracting Parties shall require all purse seine vessels to retain on board and then land, to the extent practicable, the following non-targeted species or species group; other tunas, rainbow runner, dolphinfish, triggerfish, billfish, wahoo, and barracuda, except fish considered unfit for human consumption as defined in paragraph 4b (i), and/or species which are prohibited from retention, consumption, or trade through domestic legislations and international obligations.
3. Contracting Parties and Cooperating Non-Contracting Parties using other gear types not provided for in paragraph 1 and 2 of this resolution, which are targeting tuna and tuna like species in the IOTC area of competence should encourage their vessel to:
 - a) take all reasonable steps to ensure the safe release of non-targeted species taken alive, to the extent possible, while taking into consideration the safety of the crew;
 - b) retain on board and then land all dead non-targeted species except those considered unfit for human consumption as defined in paragraph 4b(i) and/or are prohibited from retention through domestic legislations and international obligations.
4. Procedures for the implementation of full retention requirements include:
 - a) No bigeye tuna, skipjack tuna, yellowfin tuna and non-targeted species referred to in paragraph 2 caught by purse seine vessels may be discarded after the point in the set when the net is fully pursed and more than one half of the net has been retrieved. If equipment malfunctions affect the process of pursing and retrieving the net in such a way that this rule cannot be complied with, the crew must make efforts to release the tunas and the non-targeted species as soon as possible.
 - b) The following two exceptions to the above rule shall apply:
 - (i) Where it is determined by the captain of the vessel that tuna (bigeye tuna, skipjack tuna or yellowfin tuna) and the non-targeted species as listed in Para 2 caught are unfit for human consumption, the following definitions shall be applied:
 - "unfit for human consumption" are fish that:
 - is meshed or crushed in the purse seine; or
 - is damaged due to depredation; or
 - has died and spoiled in the net where a gear failure has prevented both the normal retrieval of the net and catch, and efforts to release the fish alive;
 - "unfit for human consumption" does not include fish that:
 - is considered undesirable in terms of size, marketability, or species composition; or
 - is spoiled or contaminated as the result of an act or omission of the crew of the fishing vessel.
 - (ii) Where the captain of a vessel determines that tuna (bigeye tuna, skipjack tuna or yellowfin tuna) and the non-targeted species as listed in Para 2 were caught during the final set of a trip and there is insufficient storage capacity to accommodate all tuna (bigeye tuna, skipjack tuna or yellowfin tuna) and the non-targeted species caught in that set. This fish may only be discarded if:
 - the captain and crew attempt to release the tuna (bigeye tuna, skipjack tuna or yellowfin tuna) and the non-targeted species alive as soon as possible; and
 - no further fishing is undertaken after the discard until the tuna (bigeye tuna, skipjack tuna, and/or yellowfin tuna) and the non-targeted species on board the vessel has been landed or transhipped.

NON-RETENTION

5. Where the captain of the vessel determines that fish should not be retained on board in accordance with Clause 4.b (i) and (ii), the captain shall record the event in the relevant logbook including estimated tonnage



and species composition of discarded fish; and estimated tonnage and species composition of retained fish from that set.

REVIEW

6. The IOTC Scientific Committee, the IOTC Working Party on Tropical Tunas, and the IOTC Working Party on Ecosystems and Bycatch shall as a matter of priority:
 - a) act on its recommendation in the Report of the 18th Session of the IOTC Scientific Committee and undertake work to examine the benefits of retaining non-targeted species catches, other than those prohibited via IOTC Resolution, and present its recommendations to the 22nd Annual Session of the Commission. The work should take into account all species that are usually discarded on all major gears (i.e., purse-seines, longlines and gillnets), and should look at fisheries that take place both on the high seas and in coastal countries and the feasibility of both retraining on-board and processing of the associated landings.

IMPLEMENTATION

7. This Resolution will be revised, according to the advice of the IOTC Scientific Committee resulting from the review of the IOTC Working Party on Tropical Tunas (for bigeye tuna, skipjack tuna and yellowfin tuna) and of the IOTC Working Party on Ecosystems and Bycatch (for non-target species).
8. This Resolution supersedes Resolution 17/04 *On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence.*

RESOLUTION 19/07 ON VESSEL CHARTERING IN THE IOTC AREA OF COMPETENCE

Keywords: Charter, conservation, data.

The Indian Ocean Tuna Commission (IOTC),

RECOGNIZING that, under the IOTC Agreement, Contracting Parties shall desire to cooperate with a view to ensuring the conservation of tuna and tuna-like species in the Indian Ocean and promoting their optimum utilization;

RECALLING that, according to Article 92 of the United Nations Convention on the Law of the Sea, of 10 December 1982, ships shall sail under the flag of one State only and shall be subject to its exclusive jurisdiction on the high seas except as otherwise provided in relevant international instruments;

ACKNOWLEDGING the needs and interests of all States to develop their fishing fleets to enable them to fully utilize the fishing opportunities available to them under relevant IOTC Conservation and Management Measures;

ACKNOWLEDGING the important contribution of chartered vessels to sustainable fisheries development in the Indian Ocean;

MINDFUL that the practice of charter agreements, whereby fishing vessels do not change their flag, might seriously undermine the effectiveness of Conservation and Management Measures established by the IOTC unless properly regulated;

CONCERNED with ensuring that charter agreements do not promote IUU fishing activities or undermine IOTC Conservation and Management Measures;

REALIZING that there is a need for IOTC to regulate charter agreements with due regard to all relevant factors;

REALIZING that there is a need for the IOTC to establish procedures for charter agreements;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Part I: Definitions

1. **Chartering of vessels:** means an agreement or an arrangement by which a fishing vessel flying the flag of Contracting Party is contracted for a defined period of time by an operator in another Contracting Party without the change of flag. For the purpose of this Resolution, the “chartering CP” refers to the CP that holds the quota allocation or fishing possibilities and the “flag CP” refers to the CP in which the chartered vessel is registered.

Part II: Objective

2. Charter agreements may be allowed, predominantly as an initial step in the fishery development of the chartering nation. The period of the chartering arrangement shall be consistent with the development schedule of the chartering nation. The chartering agreement shall not undermine IOTC Conservation and Management Measures.

Part III: General provisions

3. The chartering agreement shall contain the following conditions:
 - 3.1 The flag CP has consented in writing to the chartering agreement;
 - 3.2 The duration of the fishing operations under the chartering agreement does not exceed 12 months cumulatively in any calendar year;
 - 3.3 Fishing vessels to be chartered shall be registered to responsible Contracting Parties and Cooperating Non-Contracting Parties, which explicitly agree to apply IOTC Conservation and Management Measures and enforce them on their vessels. All flag Contracting Parties or Cooperating Non-Contracting Parties, concerned shall effectively exercise their duty to control their fishing vessels to ensure compliance with IOTC Conservation and Management Measures.
 - 3.4 Fishing vessels to be chartered shall be on the IOTC record of vessels authorized to operate in the IOTC



Area of Competence, in accordance with IOTC Resolution 15/04 [superseded by [Resolution 19/04](#)] *Concerning the IOTC record of vessels authorised to operate in the IOTC Area of Competence* (or any subsequent superseding revision).

- 3.5 Without prejudice to the duties of the chartering CP, the flag CP shall ensure that the chartered vessel complies with both the chartering Contracting Party and the flag Contracting Party or Cooperating Non-Contracting Party shall ensure compliance by chartered vessels with relevant Conservation and Management Measures established by IOTC, in accordance with their rights, obligations and jurisdiction under international law. If the chartered vessel is allowed by the chartering CP to go and fish in the high seas, the flag CP is then responsible for controlling the high seas fishing conducted pursuant to the charter arrangement. The chartered vessel shall report VMS and catch data to both the CPs (chartering and flag) and to the IOTC Secretariat.
- 3.6 All catches (historical and current/future), including bycatch and discards, taken pursuant to the chartering agreement (including pursuant to a chartering agreement that existed prior to the IOTC Resolution 18/10 [superseded by Resolution 19/07]), shall be counted against the quota or fishing possibilities of the chartering CP. The observer coverage (historical, current/future) on board such vessels shall also be counted against the coverage rate of the chartering CP for the duration that the vessel fishes under the Charter Agreement.
- 3.7 The chartering CP shall report to the IOTC all catches, including bycatch and discards, and other information required by the IOTC, and as per the Charter Notification Scheme detailed in Part III of this Resolution.
- 3.8 Vessel Monitoring Systems (VMS) and, as appropriate, tools for differentiation of fishing areas, such as fish tags or marks, shall be used, according to the relevant IOTC Conservation and Management Measures, for effective fishery management.
- 3.9 There shall be observer coverage of at least 5% of fishing effort, as measured in the manner specified in paragraph 2 of [Resolution 11/04](#) [superseded by [Resolution 22/04](#)] (or any subsequent superseding resolution), for chartered vessels. All other provisions of [Resolution 11/04](#) apply *mutatis mutandis* in the case of chartered vessels.
- 3.10 The chartered vessels shall have a fishing license issued by the chartering CP, and shall not be on the IOTC IUU list as established by IOTC Resolution 17/03 [superseded by [Resolution 18/03](#)] *On Establishing a List of Vessels Presumed to Have Carried out Illegal, Unreported, and Unregulated Fishing Activities in the IOTC Area of Competence* (or any subsequent superseding resolution), and/or IUU list of other Regional Fisheries Management Organisations.
- 3.11. When operating under charter agreements, the chartered vessels shall not, to the extent possible, be authorized to use the quota (if any) or entitlement of the flag Contracting Parties or Cooperating Non-Contracting Parties. In no case, shall the vessel be authorized to fish under more than one chartering agreement at the same time.
- 3.12. Unless specifically provided in the chartering agreement, and consistent with relevant domestic law and regulation, the catches of the chartered vessels shall be unloaded exclusively in the Ports of the chartering Contracting Party or under its direct supervision in order to assure that the activities of the chartered vessels do not undermine IOTC Conservation and Management Measures.
- 3.13 The chartered vessel shall at all times carry a copy of the documentation referred to in paragraph 4.1.

Part IV: Charter notification scheme

4. Within 15 days, or, in any case, prior to 72 hours before commencement of fishing activities under a Charter agreement:
 - 4.1 The chartering CP shall notify the IOTC Executive Secretary and copy the flag CP of any vessel to be identified as chartered in accordance with this Resolution by submitting electronically where possible the following information with respect to each chartered vessel:
 - a) the name (in both native and Latin alphabets) and registration of the chartered vessel, and International Maritime Organization (IMO) ship identification number (if eligible);



- b) the name and contact address of the beneficial owner(s) of the vessel;
 - c) the description of the vessel, including the length overall, type of vessel and the type of fishing method(s) to be used under the charter;
 - d) a copy of the chartering agreement and any fishing authorization or license it has issued to the vessel, including in particular, the quota allocation(s) or fishing possibility assigned to the vessel; and the duration of the chartering arrangement;
 - e) its consent to the chartering agreement; and
 - f) the measures adopted to implement these provisions.
- 4.2 The flag CP or Cooperating Non-Contracting Party, shall provide the following information to the IOTC Executive Secretary and copy the chartering CP:
- a) its consent to the chartering agreement;
 - b) the measures adopted to implement these provisions; and
 - c) its agreement to comply with IOTC Conservation and Management Measures.
5. Upon receipt of the information required in paragraph 4, the IOTC Executive Secretary shall circulate all the information within 5 business days to all Contracting Parties or Cooperating Non-Contracting Parties, via an IOTC Circular.
 6. Both the chartering CP and the flag CP or Cooperating Non-Contracting Party shall immediately inform the IOTC Executive Secretary of the start, suspension, resumption and termination of the fishing operations under the chartering agreement.
 7. The IOTC Executive Secretary shall circulate all the information pertaining to termination of a chartering agreement within 5 business days to all Contracting Parties or Cooperating Non-Contracting Parties, via an IOTC Circular.
 8. The chartering CP shall report to the IOTC Executive Secretary by 28 February each year, and for the previous calendar year, the particulars of charter agreements made and carried out under this Resolution, including information of catches taken and fishing effort deployed by the chartered vessels as well as the level of observer coverage achieved on the chartered vessels, in a manner consistent with IOTC data confidentiality requirements.
 9. Each year the IOTC Executive Secretary shall present a summary of all the chartering agreements undertaken in the previous year, to the Commission which, at its annual meeting, shall review compliance with this Resolution under advice of the IOTC Compliance Committee.
 10. This Resolution supersedes IOTC Resolution 18/10 *On Vessel Chartering in the IOTC Area of Competence*.



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

ACTIVE CMMs ADOPTED AT THE TWENTY-SECOND SESSION OF THE IOTC

2018

RESOLUTION 18/01
ON AN INTERIM PLAN FOR REBUILDING THE INDIAN OCEAN YELLOWFIN TUNA STOCK IN THE
IOTC AREA OF COMPETENCE

(Resolution 18/01 remains binding on India)

Keywords: Yellowfin tuna, Kobe Process, MSY, Precautionary Approach

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECOGNISING the special requirements of the developing States, particularly Small Island developing States in Article 24, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982, relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECALLING that Article 5, of UNFSA entitles the conservation and management of highly migratory fish stocks are based on best scientific evidence available and with special reference to [Resolution 15/10](#) for a stock where the assessed status places it within the red quadrant, and with an aim to end overfishing with a high probability and to rebuild the biomass of the stock in as short time as possible;

FURTHER RECALLING that Article 6, of UNFSA, requires the States to be cautious during the application of precautionary approach when information is uncertain, unreliable or inadequate and this should not be a reason for postponing or failing to take conservation and management measures;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

FURTHER CONSIDERING the recommendations adopted by the KOBE III, held in La Jolla, California, 12- 14 July 2011; considering the status of the stocks, each RFMO should consider a scheme for reduction of overcapacity in a way that does not constrain the access to, development of, and benefit from sustainable tuna fisheries, including on the high seas, by developing coastal States, in particular Small Island Developing States, territories, and States with small and vulnerable economies; and Transfer of capacity from developed fishing members to developing coastal fishing members within its area of competence where appropriate;

FURTHER CONSIDERING the report by International Council for the Exploration of Sea and FAO Working Group on Fishing Technology and Fish Behaviour (2006), Gillnets are considered to be one of the least catch controllable and least environmentally sustainable gears;

FURTHER CONSIDERING the recommendations of the 18th Scientific Committee held in Bali, Indonesia, 23 – 27 November 2015 that the catches of yellowfin tuna have to be reduced by 20% of the 2014 levels to recover the stocks to levels above the interim target reference points with 50% probability by 2024;

NOTING THAT the new yellowfin tuna stock assessment produced at the 19th Scientific Committee held in Seychelles mentions: “The stock status determination did not change in 2016, but does give a somewhat more optimistic estimate of stock status than the 2015 assessment, as a direct result of the use of more reliable information on catch rates of longline fisheries and updated catch up to 2015” and that “**Maximum Sustainable Yield (MSY):** estimate for the whole Indian Ocean is estimated at 422,000 t with a range between 406,000-444,000 t” and “the 2011-2015 average catches (390,185 t) were below the estimated MSY level;”

FURTHER NOTING that the estimated probability of the Indian Ocean yellowfin tuna stock to be in the red zone of the Kobe plot has decreased from 94% based on 2015 stock assessment to 67.6% based on the 2016 stock assessment and considering other applicable measures within Resolution 16/01 [superseded by Resolution 17/01, by Resolution 18/01 then by Resolution 19/01, then by Resolution 21/01], particularly the 23% reduction in the limit on the number of FADs deployed by tuna purse seiners from 550 to 425 per vessel per year, effective from 1st January 2017, and the supply vessel limitation could help this progressive improvement of the yellowfin tuna stock status;

NOTING THAT supply vessels contribute to the increase in effort and capacity of purse seiners and that the number of supply vessels has increased significantly over the years;

FURTHER CONSIDERING the discussions of the Working Party on Tropical Tuna held in Montpellier, France, 23 – 28 October 2015 on the limitations and the uncertainties in the stock assessment models due to the unavailability of standardized yellowfin tuna CPUE data;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the States to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing States, including Small Island Developing States (SIDS) as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

NOTING THAT Article V (2)(b) of the Agreement for the Establishment of the Indian Ocean Tuna Commission give full recognition to the special interests and needs of Members in the region that are developing countries, in relation to the conservation and management and optimum utilization of stocks covered by this Agreement and encouraging development of fisheries based on such stocks;

FURTHER NOTING THAT Article V(2)(d) requires the Commission to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal States. This includes ensuring that conservation and management measures adopted by it do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States, especially Small Island Developing States;

RECOGNIZING FURTHER the interactions that occur between the fisheries for yellowfin, skipjack and bigeye tuna;

CONSIDERING paragraph 12 of Resolution 16/01 [superseded by Resolution 17/01, by Resolution 18/01 then by Resolution 19/01, then by Resolution 21/01] that allows the Commission to review this Interim Plan before 2019;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. This resolution shall apply to all fishing vessels targeting tuna and tuna like species in the Indian Ocean of 24 meters overall length and over, and those under 24 meters if they fish outside the EEZ of their flag State, within the IOTC area of competence.
2. The CPCs will reduce their catch of yellowfin as follows:
3. Purse seine:
 - a) CPCs whose purse seine catches of yellowfin reported for 2014 were above 5000 MT to reduce their purse seine catches of yellowfin by 15 % from the 2014 levels.
 - b) The number of Fish Aggregating Devices (FADs) as defined in Resolution 15/08 [superseded by Resolution 17/08, then by Resolution 18/08 then by Resolution 19/02], paragraph 7 will be no more than 350 active instrumented buoys and 700 acquired annually instrumented buoys per purse seine vessel per year.

- c) Supply vessels¹: Supply vessels shall be gradually reduced by 31st December 2022 as specified below in (i), (ii), (iii) and (iv). Flag States shall submit plans for reducing the use of supply vessel to the Scientific Committee no later than 31st December 2017.
- i. From 1st of January 2018 to 31st December 2019: 1 supply vessel in support of not less than 2 purse seiners, all of the same flag State.²
 - ii. From 1st of January 2020 to 31st December 2022: 2 supply vessels in support of not less than 5 purse seiners, all of the same flag State.²
 - iii. No CPC is allowed to register any new or additional supply vessel on the IOTC Record of Authorized Vessels after 31st December 2017.
 - iv. Any further reduction as from 2022 shall be determined by the Commission in light of the advice of the Scientific Committee.
- d) A single purse seine vessel shall not be supported by more than one single supply vessel of the same flag State at any point in time.
- e) Complementary to Resolution 15/08 [\[superseded by Resolution 17/08, by Resolution 18/08 then by Resolution 19/02\]](#) on “*Procedures on FADs Management Plan including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*” and to [Resolution 15/02](#) “*Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*”, CPC/flag States shall report annually before the 1st of January for the coming year of operations which Purse seiners are served by each supply vessel. This information will be published on IOTC website so as to be accessible to all CPCs and is mandatory. In the light of assessments made available by the Working Group (WG) on dFADs and the Scientific Committee, the Commission shall update, if necessary the above limits in point b) and c).
4. Gillnet: CPCs whose Gillnet catches of yellowfin reported for 2014 were above 2000 MT to reduce their Gillnet catches of yellowfin by 10 % from the 2014 levels.
 5. Longline: CPCs whose Longline catches of yellowfin reported for 2014 were above 5000 MT to reduce their Longline catches of yellowfin by 10 % from the 2014 levels.
 6. CPCs’ other gears: CPCs whose catches of yellowfin from other gears reported for 2014 were above 5000 MT to reduce their other gear catches of yellowfin by 5 % from the 2014 levels.
 7. Flag States will determine appropriate methods for achieving these catch reductions, which could include capacity reductions, effort limits, *etc.*, and will report to the IOTC Secretariat in their Implementation Report, the measures they have taken.
 8. CPCs shall monitor the yellowfin tuna catches from their vessels in conformity with [Resolution 15/01](#) “*On the recording of catch and effort data by fishing vessels in the IOTC area of competence*” and [Resolution 15/02](#) “*Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non Contracting Parties (CPCs)*” and will provide a summary of most-recent yellowfin catches for the consideration of the IOTC Compliance Committee.
 9. Each year, the Compliance Committee shall evaluate the level of compliance with the catch limits deriving from this Resolution and shall make recommendations to the Commission accordingly. The Scientific Committee via its Working Party on Tropical Tunas, shall in 2018, conduct a new assessment of the status of the Yellowfin stock using all available data.
 10. The Scientific Committee via its Working Party on Tropical Tunas shall in 2018 undertake an evaluation of the effectiveness of the measures detailed in this Resolution, taking into account all sources of fishing mortality

¹ For the purpose of this Resolution, the term “supply vessel” includes “support vessel”.

² The subparagraphs (i) and (ii) shall not apply to flag States which use only one supply vessel.



and possible alternatives aiming at returning and maintaining biomass levels at the Commission's target level. After consideration of the results of this evaluation, the Commission shall take corrective measures accordingly.

11. The Commission shall, based on the improved artisanal fishery data and the assessment of the state and impact of the artisanal fishery on the yellowfin stocks, take appropriate measures on the management of the artisanal yellowfin tuna fishery, at its Commission meeting in 2018.

12. The measures contained within this Resolution shall be considered as interim measure and will be reviewed by the Commission no later than at its annual Session in 2019.

13. The provisions of paragraphs 3, 4, 5 and 6 shall be applicable to Small Island Developing States, Least Developed Countries and Small Vulnerable Economies on catches of yellowfin reported for 2014 or 2015.

14. Nothing in this resolution shall pre-empt or prejudice future allocation.

15. This Resolution supersedes IOTC Resolution 17/01 *On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock*.

RESOLUTION 18/02
ON MANAGEMENT MEASURES FOR THE CONSERVATION OF BLUE SHARK CAUGHT IN
ASSOCIATION WITH IOTC FISHERIES

Keywords: Blue shark, Catch limits, scientific research, reference points, data collection, catch reporting

The Indian Ocean Tuna Commission (IOTC),

RECALLING the [Resolution 17/05](#) on the conservation of sharks caught in association with fisheries managed by IOTC aims the sustainability of shark fisheries and the protection of sharks;

RECALLING the [Resolution 12/01](#) on the implementation of the precautionary approach calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) to apply the precautionary approach in accordance with Articles 5 and 6 of the United Nations Fish Stocks Agreement;

RECALLING the [Resolution 15/01](#) on the recording of catch and effort data by fishing vessels in the IOTC area of competence fixes the IOTC data record system;

RECALLING the [Resolution 15/02](#) on the Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) defines the catch and catch related information to be provided by CPCs to the IOTC Secretariat;

RECALLING that United Nations General Assembly Resolution on Sustainable Fisheries, adopted annually by consensus, since 2007 (62/177, 63/112, 64/72, 65/38, 66/68, 67/79, 68/71, 69/109, 70/75 and 71/123) calls upon States to take immediate and concerted action to improve the implementation of and compliance with existing regional fisheries management organisation or arrangement measures that regulate shark fisheries and incidental catch of sharks, in particular those measures which prohibit or restrict fisheries conducted solely for the purpose of harvesting shark fins, and, where necessary, to consider taking other measures, as appropriate, such as requiring that all sharks be landed with fins naturally attached;

CONSIDERING that pending the results of the new stock assessment, it is advisable to avoid an increase in levels of catches of blue shark while simultaneously adopt measures to improve data collection and monitoring of catches;

CONSIDERING that the average estimated catches of blue shark are much higher than the reported catches;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. To ensure the conservation of the blue shark (*Prionace glauca*) stock in the Indian Ocean, Contracting Parties and Cooperating non-Contracting Parties, (CPCs) whose vessels catch blue shark in the IOTC Convention Area shall ensure that effective management measures are in place to support the sustainable exploitation of this stock in line with IOTC's Convention objective by undertaking the following management measures:

Recording, Reporting, and Use of the Catch Information

2. In order to curb the level of unreported catches, each CPC shall ensure that its vessels catching blue shark in association with IOTC fisheries in the Agreement area record their catch in accordance with the requirements set out in the [Resolution 15/01](#) on the recording of catch and effort data by fishing vessels in the IOTC area of competence or any Resolution superseding it.
3. CPCs shall implement data collection programmes that ensure improved reporting of accurate blue shark catch, effort, size and discard data to IOTC in full accordance with the [Resolution 15/02](#) on the Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs), or any Resolution superseding it.
4. CPCs shall include in their national Annual Reports to the Scientific Committee information on the actions they have taken domestically to monitor catches.

Scientific Research

5. CPCs are encouraged to undertake scientific research on blue shark that would provide information on key biological/ecological/behavioural characteristics, life-history, migrations, post-release survival and guidelines for safe release and identification of nursery grounds, as well as improving fishing practices. Such information shall be made available to the Working Party on Ecosystem and Bycatch and Scientific Committee through working documents and the national Annual Reports.
6. In light of the results of the next stock assessment of blue shark in 2021, the Scientific Committee shall provide advice, if possible, on options for candidate limit, threshold and target reference points for the conservation and management of this species in the IOTC Convention area.
7. The Scientific Committee shall also provide advice, at the latest by 2021, on potential management options for ensuring long-term sustainability of the stock, such as mitigation measures to reduce the mortality of blue shark, improving selectivity of fishing gears, spatial/temporal closures or minimum conservation sizes.

Final Provisions

8. Based on the review and the results of the next stock assessment, updated reported catch information by each CPC and taking into account the Scientific Committee's advice, the Commission shall consider, at its 2021 meeting, the adoption of conservation and management measures, which could include the catch limit for each CPC to be decided taking into account the most recent reported catch information or bycatch mitigation such as a ban on wire trace/shark line for blue shark as appropriate.

RESOLUTION 18/03
**ON ESTABLISHING A LIST OF VESSELS PRESUMED TO HAVE CARRIED OUT ILLEGAL,
UNREPORTED AND UNREGULATED FISHING IN THE IOTC AREA OF COMPETENCE**

Keywords: IUU, illegal, unreported and unregulated fishing

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the FAO Council adopted on 23 June 2001 an International Plan of Action to prevent, to deter and eliminate illegal, unreported and unregulated fishing (IPOA-IUU). This plan stipulates that the identification of the vessels carrying out IUU activities should follow agreed procedures and be applied in an equitable, transparent and non-discriminatory way;

RECALLING that the IOTC adopted Resolution 01/07 [superseded by [Resolution 14/01](#)] concerning its support of the IPOA-IUU;

RECALLING that IOTC has already adopted measures against IUU fishing activities;

RECALLING that the IOTC adopted [Resolution 07/01](#) to promote compliance by nationals of Contracting Parties and Cooperating Non-Contracting Parties with IOTC Conservation and Management Measures;

RECALLING ALSO that the IOTC adopted Resolution 07/02 [superseded by [Resolution 13/02](#), then by [Resolution 14/04](#), then by [Resolution 15/04](#), then by [Resolution 19/04](#)] to enhance the implementation of IOTC Conservation and Management Measures through establishing a Record of fishing vessels authorised to operate in the IOTC area of competence;

RECOGNISING that IUU fishing activities may be linked with serious and organised crime;

CONCERNED by the fact that IUU fishing activities in the IOTC area of competence continue, and these activities diminish the effectiveness of IOTC Conservation and Management Measures;

FURTHER CONCERNED that there is evidence of a large number of vessel owners engaged in such fishing activities who have re-flagged their vessels to avoid compliance with IOTC Conservation and Management Measures;

DETERMINED to address the challenge of an increase in IUU fishing activities by way of countermeasures to be applied in respect of the vessels engaged in IUU fishing, without prejudice to further measures adopted in respect of flag States under the relevant IOTC instruments;

CONSCIOUS of the need to address, as a matter of priority, the issue of large-scale fishing vessels conducting IUU fishing activities;



NOTING that the situation must be addressed in the light of all relevant international fisheries instruments and in accordance with the relevant rights and obligations established in the World Trade Organisation (WTO) Agreement;

TAKING INTO ACCOUNT the basic principles for adopting measures for cross-listing vessels listed as IUU by other RFMOs endorsed in the recommendations of the 3rd Joint Meeting of the Tuna RFMO, held in La Jolla, California in 2011;

ACKNOWLEDGING the need to preserve the decision-making authority of IOTC in any cross-listing decision by ensuring that members have the opportunity to consider each vessel on a case-by-case basis prior to its inclusion in the IOTC IUU vessel list;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

Use of terms

1. For the purpose of this Resolution:

- a) 'Owner' means the natural or legal person registered as the owner of a vessel;
- b) 'Operator' means the natural or legal person who is responsible for taking commercial decisions regarding the management and operation of a vessel and includes a charterer of the vessel;
- c) 'Master' means any person holding the most responsible position at any given time on-board a fishing vessel;
- d) 'fishing' means searching for, attracting, locating, catching, taking or harvesting fish or any activity which can reasonably be expected to result in the attracting, locating, taking or harvesting of fish;
- e) 'fishing related activities' means any operation in support of, or in preparation for, fishing, including landing, packaging, processing, transshipment or transport of fish and/or fish products that have not been previously landed at a port, as well as the provisioning of personnel, fuel, gear, food and other supplies at-sea;
- f) 'Information' means suitably and sufficiently documented data which is capable of being presented as evidence to the Compliance Committee and/or Commission of any facts in issue,
- g) the singular also includes the plural.

Application of this measure

2. This Resolution applies to vessels, together with their Owners, Operators and Masters that undertake fishing and fishing related activities, for species covered by the IOTC Agreement, or by IOTC Conservation and Management Measures, within the IOTC area of competence (IOTC Area).

Objective

3. This Resolution sets out rules and procedures for the maintenance and updating by the Commission of the system of lists of vessels considered to be involved in illegal, unreported and unregulated



(IUU) fishing activities and which comprises:

- a) the Draft IOTC IUU Vessel List (Draft IUU Vessel List);
- b) the Provisional IOTC IUU Vessel List (Provisional IUU Vessel List); and
- c) the IOTC IUU Vessel List (IUU Vessel List).

Definition of IUU Fishing Activities

4. For the purposes of this Resolution a vessel is presumed to have engaged in IUU fishing activities when a Contracting Party or Cooperating Non-Contracting Party (hereinafter referred to as “CPCs”) has provided information that such a vessel has, within the IOTC Area and in relation to species covered by the IOTC Agreement or by IOTC Conservation and Management Measures:
 - a) engaged in fishing or fishing related activities and is neither registered on the IOTC Record of Authorised Vessels in accordance with Resolution 15/04 [superseded by [Resolution 19/04](#)], nor recorded in the Active list of vessels; or
 - b) engaged in fishing or fishing related activities when its flag State is without quota, catch limit, or effort allocation under IOTC Conservation and Management Measures where applicable unless that vessel is flagged to a CPC ; or
 - c) failed to record or report its catches in accordance with IOTC Conservation and Management Measures or has made false reports; or
 - d) taken or landed undersized fish in contravention of IOTC Conservation and Management Measures; or
 - e) engaged in fishing or fishing related activities during closed fishing periods or in closed areas in contravention of IOTC Conservation and Management Measures; or
 - f) used prohibited fishing gear in contravention of IOTC Conservation and Management Measures; or
 - g) transhipped fish to, or otherwise participated in joint operations with, support or re-supply vessels that are not included on the IOTC Record of Authorised Vessels or not on the Record of Vessels Authorised to Receive Transhipments At-Sea in the IOTC Area; or
 - h) engaged in fishing or fishing related activities in waters that are under the national jurisdiction of a coastal State without the permission or authorisation of that State or in contravention of the laws and regulations of that State (without prejudice to the sovereign rights of the State concerned to undertake enforcement measures against such a vessel)¹; or
 - i) engaged in fishing or fishing related activities whilst being without nationality; or
 - j) engaged in fishing or fishing related activities having intentionally falsified or concealed its markings, identity or registration; or
 - k) engaged in fishing or fishing related activities in contravention of any other binding IOTC

¹ For the purposes of this subparagraph, a vessel that is recorded on the IOTC Record of Authorised Vessels shall not be presumed to have engaged in IUU fishing activities when a Fish Aggregating Device (FAD) it has deployed has drifted into waters that are under the national jurisdiction of a coastal State without its permission or authorization. However, if the vessel retrieves or fishes on a FAD in a Coastal State's waters without its permission or authorization, the vessel is presumed to have engaged in IUU activities



Conservation and Management Measures

Submission of information on IUU Fishing Activities

5. A CPC in possession of information that one or more vessels has engaged in IUU fishing activities within the IOTC Area within a 24 month period prior to the annual meeting of the Compliance Committee shall submit a list of such vessels to the IOTC Executive Secretary. Such submission shall be made at least 70 days before the annual meeting of the Compliance Committee using the IOTC Reporting Form for Illegal Activity (**Annex I**).
6. A list submitted by a CPC (the nominating CPC) in accordance with paragraph 5, shall be accompanied by information concerning the IUU fishing activity of each of the listed vessels including but not limited to:
 - a) reports regarding the alleged IUU fishing activity from CPCs relating to IOTC Conservation and Management Measures in force;
 - b) trade information obtained on the basis of relevant trade statistics such as those from statistical documents and other national or international verifiable statistics;
 - c) any other information obtained from other sources and/or gathered from the fishing grounds such as:
 - i. information gathered from inspections undertaken in port or at sea; or
 - ii. information from coastal States including VMS transponder or AIS data, surveillance data from satellites or airborne or seaborne assets; or
 - iii. IOTC programmes, except where such a programme stipulates that information gathered is to be kept confidential; or
 - iv. information and intelligence collected by third parties either provided directly to a CPC or via the IOTC Executive Secretary pursuant to paragraph 7.
7. When the IOTC Executive Secretary receives information and intelligence from third parties indicating alleged IUU fishing activities, the IOTC Executive Secretary shall transmit the information to the flag State of the vessel and each CPC. Where the flag State of the vessel is a CPC, if requested by any other CPC through the IOTC Executive Secretary, it shall investigate the allegation and shall report the progress of the investigation to the IOTC Executive Secretary within 60 days. Where the flag State is not a CPC, if requested by any CPC the IOTC Executive Secretary shall request it to investigate the allegation and report the progress of the investigation to the IOTC Executive Secretary within 60 days. The IOTC Executive Secretary shall then, as soon as practicably possible, notify each CPC and the flag State of each vessel concerned, together with such compiled information as has been received. Where the alleged IUU activities occurred in the waters of a coastal State CPC of IOTC, the CPC concerned may seek to include the vessel on the draft IUU list (paragraph 6(c).iv). Where the alleged IUU activities occurred in areas beyond national jurisdiction within the IOTC Area any concerned CPC may seek to include the vessel on the draft IUU list.

Draft IOTC IUU Vessel List

8. On the basis of the information received pursuant to paragraphs 5, 6 and 7, the IOTC Executive Secretary shall draw up a Draft IUU Vessel List incorporating the information in the format set out in **Annex II**. The IOTC Executive Secretary shall then transmit the Draft IUU Vessel List together with the compiled information to each CPC and to the flag State of each vessel included on the Draft



IUU Vessel List at least 55 days before the Annual Meeting of the Compliance Committee.

9. The flag State of a vessel included on the Draft IUU Vessel List shall be requested to:
 - a) notify the Owner, Operator and the Master of the vessel of the fact of its inclusion in the Draft IUU Vessel List and of the consequences that may result from its inclusion being confirmed in the IUU Vessel List adopted by the Commission, and
 - b) closely monitor the vessels included in the Draft IUU Vessel List in order to determine their activities and possible changes of use, name, flag and/or registered Owner.
10. The flag State of a vessel included on the Draft IUU Vessel List may transmit to the IOTC Executive Secretary at least 15 days before the Annual Meeting of the Compliance Committee, any comments and information about listed vessels and their activities, including information pursuant to Paragraph 9.a) and 9.b) and information showing that the listed vessels either have or have not:
 - a) conducted fishing activities in a manner consistent with IOTC Conservation and Management Measures in force; or
 - b) conducted fishing activities in a manner consistent with the laws and regulations of a coastal State when fishing in the waters under the jurisdiction of that State, and with the law and regulations of the flag State and the Authorisation to Fish; or
 - c) conducted fishing activities exclusively for species that are not covered by the IOTC Agreement or IOTC Conservation and Management Measures.
11. The IOTC Executive Secretary shall compile any new information received from CPCs and flag States regarding vessels on the Draft IUU Vessel List and, pursuant to paragraphs 22 and 23, those on the IUU Vessel List and circulate that information to all CPCs and to the flag States of vessels on the lists at least 10 days prior to the annual session of the Compliance Committee together with the completed checklist, **Annex III** and where applicable, **Annex IV**.
12. A CPC may at any time submit to the IOTC Executive Secretary any additional information regarding vessels on the Draft IUU list, which might be relevant to the establishment of the IUU Vessel List. If the IOTC Secretariat receive this information after the Draft IUU Vessel List has been circulated to CPCs, it will circulate the information to all CPCs and to the flag States of listed vessels as soon as practicable.

Provisional IOTC IUU Vessel List

13. The IOTC Compliance Committee shall each year at its Annual Meeting examine the Draft IUU Vessel List, as well as the information submitted, any comments received from the flag State of a vessel included on the Draft IUU Vessel List together with any additional information submitted by any CPC. If the IOTC Compliance Committee is satisfied that the documented information establishes that the vessel carried out IUU fishing activities, it shall include the vessel or vessels concerned in the Provisional IUU Vessel List.
14. The Compliance Committee shall not include a vessel in the Provisional IUU Vessel List if:
 - a) the nominating CPC did not follow the provisions of paragraphs 5 and 6; or
 - b) on the basis of the information available, the Compliance Committee is not satisfied that the presumption of IUU fishing activities referred to in paragraph 4 has been established; or
 - c) the flag State of a vessel included in the Draft IUU Vessel List provides information that



- demonstrates that the vessel has at all relevant times complied with the rules of the flag State and with its authorisation to fish and:
- i. that the vessel has conducted fishing activities in a manner consistent with the IOTC Agreement and Conservation and Management Measures; or
 - ii. that the vessel has conducted fishing activities within the waters under the jurisdiction of a coastal State in a manner consistent with the laws and regulations of that coastal State; or
 - iii. that the vessel has fished exclusively for species that are not covered by the IOTC Agreement or IOTC Conservation and Management Measures; or
- d) the flag State of a vessel included in the Draft IUU Vessel List provides information that demonstrates that effective action has been taken in response to the IUU fishing activities in question, including prosecution and imposition of sanctions of adequate severity to be effective in securing compliance and deterring further infringements. Every CPC shall report any actions and measures that it has taken in accordance with Resolution 07/01, in order to promote compliance with IOTC Conservation and Management Measures by vessels that fly its flag.
15. In cases where a flag State has not demonstrated the matters referred to in Paragraphs 14.c) or 14.d) or where a flag State has not provided any information under paragraph 10 or during the Compliance Committee meeting, the IOTC Compliance Committee shall include the vessel on the Provisional IUU List and recommend to the Commission that the vessel be included on the IUU Vessel List.
16. Following the examination referred to in paragraph 13 at each IOTC Annual meeting, the IOTC Compliance Committee shall submit the Provisional IUU Vessel List to the Commission for its consideration. If the Compliance Committee cannot agree as to whether a certain vessel shall be included in the Provisional IUU Vessel List, the List shall include the vessel and the Commission shall decide whether the vessel shall be included in the IUU Vessel List.

IOTC IUU Vessel List

17. The IOTC Compliance Committee shall each year examine the IUU Vessel List and the information circulated under paragraph 11 and shall recommend to the Commission which, if any, vessels should be added to or removed from the IUU Vessel List.
18. The Commission shall each year at its Annual Meeting review the IUU Vessel List as well as the Provisional IUU Vessel List, and the recommendations adopted by the IOTC Compliance Committee to amend the IUU Vessel List, together with the documented information provided under paragraphs 6, 10, 12, and 30. Based on its review, the Commission may decide to amend the IUU Vessel List by:
- a) adding or removing vessels; and/or
 - b) rectifying any incorrect details, or inserting new details, about a vessel already included on the IUU Vessel List in accordance with paragraph 30.a).
19. The Commission, acting in accordance with paragraph 18, may amend the IUU Vessel List by consensus. In the absence of consensus, the Commission shall decide upon any proposed amendment by a vote. Voting may be conducted by a secret ballot if a member requests it and this request is seconded. If two thirds or more of the Contracting Parties present and voting support the



proposed amendment it shall be considered approved and brought into effect. The outcome of any decision made by the Commission pursuant to this paragraph shall not affect any domestic prosecution or settlement of any sanctions by the nominating or flag States pursuant to paragraphs 4 and 14.d).

Action against IUU Vessels

20. Following the adoption of the IUU Vessel List, the IOTC Executive Secretary shall request the flag State of every vessel that is included in the list:
 - a) to notify the Owner and Operator of the vessel of its inclusion on the list and the consequences which may result from its inclusion in the list;
 - b) to take all the necessary measures to prevent the vessel from undertaking IUU fishing activities, including withdrawing its fishing licence or the de-registering of the vessel, and to inform the Commission of the measures taken in this respect.

21. A CPC shall take all necessary measures, in accordance with its legislation:
 - a) to ensure that no vessel flying its flag, including any fishing vessel, support vessel, refuelling (supply) vessel, mother-ship or cargo vessel, provides assistance to a vessel included in the IUU Vessel List in any way, or engages in fishing processing operations with such a vessel or participates in transshipment or joint fishing operations with such a vessel, except for the purpose of rendering assistance where such a vessel, or any person on that vessel, is in danger or distress;
 - b) to refuse entry into its ports by any vessel included on the IUU Vessel List, except in case of *force majeure* or where the vessel, or any person on that vessel, is in danger or distress, unless vessels are allowed entry into port for the exclusive purpose of inspection and effective enforcement action;
 - c) to consider giving priority to the inspection of vessels on the IUU Vessel List, if such vessels are otherwise found in their ports;
 - d) to prohibit the chartering of a vessel included on the IUU Vessel List;
 - e) to refuse to grant their flag to vessels included in the IUU Vessel List, except if the vessel has changed Owner and the new Owner has provided sufficient information demonstrating the previous Owner or Operator has no further legal, beneficial or financial interest in, or control of, the vessel; or having taken into account and documented all relevant facts, the flag State determines that granting the vessel its flag will not result in IUU fishing;
 - f) to prohibit the import, landing or transshipment, of tuna and tuna-like species from vessels included in the IUU Vessel List;
 - g) to encourage importers, transporters and other sectors concerned, to refrain from engaging in transactions, including transshipments, relating to tuna and tuna-like species caught by vessels included in the IUU Vessel List;
 - h) to collect and exchange with other Contracting Parties or Cooperating Non-Contracting Parties any appropriate information with the aim of detecting, controlling and preventing false import/export certificates for tunas and tuna-like species from vessels included in the IUU Vessel List.

Vessel Delisting Procedures



22. The flag State of a vessel included in the IUU Vessel List may request the removal of the vessel from the list at any time, including during the inter-sessional period, by providing information to the IOTC Executive Secretary to demonstrate that:
- a) i) it has adopted measures such that the vessel Owner and all other nationals employed on that vessel that engage in fishing and fishing related activities within the IOTC Area for species covered by the IOTC Agreement comply with all IOTC Conservation and Management Measures; and
 - ii) it is effectively assuming and will continue to effectively assume its flag State responsibilities with regard to the monitoring and control of the fishing activities of this vessel; and
 - iii) it has taken effective action against the Owner, Operator and Master (where appropriate) in response to the IUU fishing activities that resulted in the vessel's inclusion in the IUU Vessel List including prosecution and imposition of sanctions of adequate severity; or
 - b) The vessel has changed ownership and that the new Owner can establish that the previous Owner no longer has any operational, legal, financial or real interests whether direct or indirect in the vessel or exercises control over it and that the new Owner has not participated in any IUU fishing activities in the preceding 5 years; or
 - c) The vessel has been sunk or scrapped; or
 - d) Any prosecution and/or sanctions regarding the vessel that conducted IUU fishing activities has been concluded by both the nominating CPC and the flag State of the vessel.
23. If a request for the removal of a vessel from the IUU Vessel List is received within 55 to 15 days before the annual Compliance Committee meeting, the request shall be considered at that meeting. The Compliance Committee shall examine the request along with any information provided under paragraph 22 and shall recommend to the Commission whether or not the vessel should be removed from the IUU Vessel List.
24. If a request is received more than 55 days before the annual Compliance Committee meeting, the request will be considered in accordance with the intersessional procedure outlined in paragraphs 25-28.
25. On the basis of the information received in accordance with paragraph 22, the IOTC Executive Secretary shall transmit the request for removal together with all the supporting information submitted and the checklist in **Annex IV** to all CPCs within 15 days following receipt of the request.
26. The Contracting Parties shall examine the request to remove the vessel and shall notify the IOTC Secretariat of their conclusion to either remove the vessel from, or keep the vessel on, the IUU Vessel List, within 30 days following the notification by the IOTC Executive Secretary.
27. At the end of the 30 day period, the IOTC Executive Secretary shall ascertain the outcome of the CPCs' decision on the proposal in accordance with the following:
- a) A Vessel Delisting Procedure shall be deemed valid only if at least 50% of the Contracting Parties with voting rights respond to the proposal;
 - b) A proposal shall be considered to have been approved if two thirds or more of the Contracting Parties with voting rights that respond indicate that they support the delisting of the vessel concerned from the IUU Vessel List, and it shall be delisted;



- c) If fewer than two-thirds of the Contracting Parties with voting rights that respond are in favour of delisting the vessel from the IUU Vessels List it shall not be delisted and the request for delisting shall be considered by the next annual meeting of the Compliance Committee in accordance with the procedure outlined in paragraph 23.
28. The IOTC Executive Secretary shall communicate the result of every decision, along with a copy of the amended IUU Vessel List, to all CPCs, the flag State of the vessel (if not a CPC), and any Non-Contracting Party that may have an interest. The amended IUU Vessel List will have effect immediately after the result of the decision has been communicated.

Publication of the IUU Vessel List

29. The IOTC Executive Secretary will take any necessary measures to ensure publicity of the IUU Vessel List adopted by IOTC pursuant to paragraph 18, or as amended pursuant to paragraphs 22 to 27, 30, 34, 35 or 36 in a manner consistent with any applicable confidentiality requirements, and through electronic means, including placing it on the IOTC website. Furthermore, the IOTC Executive Secretary shall transmit the IOTC IUU Vessel List as soon as possible to the FAO and to the organisations as set out in Paragraph 31 for the purposes of enhanced co-operation between IOTC and these organisations in order to prevent, deter and eliminate IUU fishing.

Change of details of vessels included on the IUU Vessels List

30. A CPC with new or changed information for vessels on the IUU Vessel List in relation to the details in paragraphs 1 to 8 of Annex II shall, as soon as practicable, transmit such information to the IOTC Executive Secretary. The IOTC Executive Secretary shall communicate such information to all CPCs and:
- a) where the information indicates incorrect details were included at the time the vessel was added to the IUU Vessel List, refer the matter to the Commission for consideration pursuant to paragraph 18.b);
 - b) where the information indicates a change in details since the vessel was added to the IUU Vessel List, seek to verify the information by reference to other information and, after verification, update the relevant details in the IUU Vessel List and re-publicise it in accordance with paragraph 29. If the Secretariat, after reasonable efforts, is unable to verify the information submitted by the CPC the IUU Vessel List will not be updated.

Cross-Listing of vessels included on the IUU Vessels List

31. The IOTC Executive Secretary shall maintain appropriate contacts, *inter alia*, with the Secretariats of the following organisations in order to obtain their latest IUU vessel lists and any other relevant information regarding the list in a timely manner upon adoption or amendment: the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the International Commission for the Conservation of Atlantic Tunas (ICCAT), the South East Atlantic Fisheries Organisation (SEAFO), the Southern Indian Ocean Fisheries Agreement (SIOFA), the South Pacific Regional Fisheries Management Organisation (SPRFMO) and the Western and Central Pacific Fisheries Commission (WCPFC).
32. Notwithstanding paragraph 2, IUU vessels listed by the organisations set out in paragraph 31 may be added to or deleted from the IOTC IUU Vessel List, provided that the procedures specified in paragraphs 33 to 38 are followed.
33. In addition to the organisations set out in paragraph 31, the Executive Secretary shall transmit the IOTC IUU Vessel List to a relevant organisation that has expressed an interest to receive such List,



34. Upon receipt of the information outlined in paragraphs 31, the IOTC Executive Secretary shall promptly circulate it to all CPCs for the purpose of amending the IOTC IUU Vessel List.
35. Vessels that have been included in the IUU vessel lists of the organisations set out in paragraph 31 shall be included in the IOTC IUU Vessel List, unless any CPC objects to the inclusion in writing within 30 days of the date of transmittal by the Executive Secretary. The objecting CPC shall explain the reason for the objection.
36. In the event of an objection to the inclusion pursuant to paragraph 35, the case shall be brought to the following session of the Compliance Committee for its examination. The Compliance Committee shall provide a recommendation to the Commission on the inclusion of the relevant vessel/s in the IUU Vessel List.
37. Vessels that have been listed under the procedures specified in paragraphs 34 and 35 and that have been removed from the IUU vessel lists of the relevant organisations set out in paragraph 31 shall be removed from the IOTC IUU Vessel List.
38. Upon the change of the IOTC IUU Vessel List pursuant to paragraphs 34 or 36, the IOTC Executive Secretary shall circulate the amended IOTC IUU Vessel List to all CPCs.

General Provisions

39. Without prejudice to the rights of flag States and coastal States to take action consistent with international law, CPCs shall not take any unilateral trade measures or other sanctions against vessels included in the Draft and/or Provisional IUU Vessel Lists, pursuant to paragraphs 8 and 16 on the grounds that such vessels are involved in IUU fishing activities, or against those vessels removed from the IUU vessels list by the Commission.
40. A summary of the timeframe for actions to be taken in respect of this Resolution is provided in **Annex V**
41. Resolution 17/03 *On Establishing A List Of Vessels Presumed To Have Carried Out Illegal, Unreported And Unregulated Fishing In The IOTC Area* is superseded by this Resolution.



ANNEX I

IOTC REPORTING FORM FOR ILLEGAL ACTIVITY

Recalling IOTC Resolution 18/03 On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area, attached are details of illegal activity recorded by [name of CPC, third party] in [area in which the activity took place]

A. Details of Vessel

(Please detail the incidents(s) in the format below)

Item	Definition	Indicate
a	Current Name of Vessel (Previous name/s, if any)	
b	Current Flag (previous flag/s, if any)	
c	Date first included on IOTC IUU Vessel List (if applicable)	
d	Lloyds IMO Number, if available	
e	Photo	
f	Call Sign (previous call sign, if any)	
g	Owner (previous Owner/s, if any)	
h	Operator (previous Operator/s, if any) and Master/Fishing Master	
i	Date of alleged IUU fishing activities	
j	Position of alleged IUU fishing activities	
k	Summary of alleged IUU activities (see section B for more detail)	
l	Summary of any actions known to have been taken in respect of the alleged IUU fishing activities	
m	Outcome of actions taken	



B. Details of IOTC Resolution Elements Contravened

(Indicate with a “X” the individual elements of IOTC Resolution 18/03 contravened, and provide relevant details including date, location, source of information. Extra information can be provided in an attachment if necessary.)

That a vessel has, within the IOTC Area and in relation to species covered by the IOTC Agreement or by IOTC Conservation and Management Measures:

Item	Definition	Indicate
a.	engaged in fishing or fishing related activities and is neither registered on the IOTC Record of Authorised Vessels in accordance with Resolution 15/04 [superseded by Resolution 19/04], nor recorded in the Active list of vessels; or	
b.	engaged in fishing or fishing related activities when its flag State is without quota, catch limit, or effort allocation under IOTC Conservation and Management Measures where applicable; or	
c.	failed to record or report its catches in accordance with IOTC Conservation and Management Measures or has made false reports; or	
d.	taken or landed undersized fish in contravention of IOTC Conservation and Management Measures; or	
e.	engaged in fishing or fishing related activities during closed fishing periods or in closed areas in contravention of IOTC Conservation and Management Measures; or	
f.	used prohibited fishing gear in contravention of IOTC Conservation and Management Measures; or	
g.	transhipped fish to, or otherwise participated in joint operations with, support or re-supply vessels that are not included on the IOTC Record of Authorised Vessels or not on the Record of Vessels Authorised to receive transhipments at-sea in the IOTC Area or	
h.	engaged in fishing or fishing related activities in waters that are under the national jurisdiction of a coastal State without the permission or authorisation of that State or in contravention of the laws and regulations of that State (without prejudice to the sovereign rights of the State concerned to undertake enforcement measures against such a vessel); or	
i.	engaged in fishing or fishing related activities whilst being without nationality; or	
j.	engaged in fishing or fishing related activities having intentionally falsified or concealed its markings, identity or registration; or	
k.	engaged in fishing or fishing related activities in contravention of any other binding IOTC Conservation and Management Measures;	



C. Associated Documents

(List here the associated documents that are appended e.g. boarding reports, court proceedings, photographs)

D. Recommended Actions

Recommended Actions		Indicate
a	Notification to IOTC Secretariat only. No further action is recommended.	
b	Notification of illegal activity to IOTC Secretariat. Recommend notification of activity to flag State.	
c	Recommended for inclusion on IOTC IUU list	



ANNEX II

INFORMATION TO BE INCLUDED IN ALL IOTC IUU VESSELS LISTS

The Draft IUU Vessel List, Provisional IUU Vessel List and the IUU Vessel List shall contain the following details:

1. Name of the vessel and previous name/s, if any;
2. Flag of the vessel and previous flag/s, if any;
3. Name and address of the Owner and Operator of the vessel and previous Owner and Operator, if any;
4. For legal entity the country of registration and registration number;
5. Callsign of the vessel and previous callsign, if any;
6. IMO number, if any, or unique vessel identifier (UVI), or if not applicable, any other vessel identifier;
7. Recent photographs of the vessel, where available;
8. Vessel length overall;
9. Date the vessel was first included on the IOTC IUU Vessel List, if applicable;
10. Summary of the alleged IUU fishing activities which justify inclusion of the vessel on the List, together with references to all relevant supporting documents information;
11. Summary of any actions known to have been taken in respect of the alleged IUU fishing activities and their outcomes,
12. Name of the organization, if the vessel has been listed or is proposed to be listed based on the information from another organization.



ANNEX III

CHECKLIST TO BE COMPLETED BY THE SECRETARIAT FOR VESSELS TO BE INCLUDED ON THE DRAFT AND PROVISIONAL IUU LISTS

Vessel Name: _____

Action	Responsibility	Paragraph	Provided on time (Y/N)	Aide Memoire	Mark which applies	Comments
For the Draft IUU Vessel List						
IOTC Reporting form (Annex I) submitted at least 70 days before the Compliance Committee meeting with documented information	Nominating CPC	5,6,7,8		If No, do not include on the Provisional IUU list (Para 17)		
At least 15 days before the Compliance Committee Meeting, Flag State has provided information that it has notified the Owners and Masters of a vessel of its inclusion on the Draft IUU Vessel List and the consequences thereof	Flag CPC	9,10				
At least 15 days before the Compliance Committee Meeting, Flag State has provided information consistent with Paragraph 10	Flag CPC	10				
Additional information has been submitted, relevant to IUU listing	Nominating CPC or flag CPC	12				
For Inclusion on the Provisional IUU Vessel List (note that Secretariat will indicate if information has been provided, but will make no judgement as to its adequacy, which will be the responsibility of the Compliance Committee)						



Action	Responsibility	Paragraph	Provided on time (Y/N)	Aide Memoire	Mark which applies	Comments
Has the flag State of a vessel included in the Draft IUU Vessel List provided information that demonstrates that the vessel has at all relevant times complied with the rules of the flag State and with its authorisation to fish and:	Flag CPC	14c		<p>Aide Memoire to CoC: Only where para14c or 14 d are satisfied, do not include on Provisional IUU list.</p>		
(a) that the vessel has conducted fishing activities in a manner consistent with the IOTC Agreement and Conservation and Management Measures	Flag CPC	14c				
(b) that the vessel has conducted fishing activities within the waters under the jurisdiction of a coastal State in a manner consistent with the laws and regulations of that coastal State; or	Flag CPC	14c				
(c) that the vessel has fished exclusively for species that are not covered by the IOTC Agreement or IOTC Conservation and Management Measures	Flag CPC	14c				
Has the flag State provided information that demonstrates that effective action has been taken in response to IUU fishing activities (the CoC will decide if they are of adequate severity)	Flag CPC	14d				
Has the flag State provided information to show that it has taken any actions in accordance with 07/01	Flag CPC	14d				



ANNEX IV

CHECKLIST TO BE COMPLETED BY THE SECRETARIAT FOR POTENTIAL REMOVAL OF VESSELS FROM THE IOTC IUU VESSEL LIST

(Aide Memoire for the Commission for delisting a vessel: note that the Secretariat will indicate if information has been provided, but will make no judgement as to its adequacy, which will be the responsibility of the Compliance Committee / Commission, Paragraphs 17 and 27)

Vessel Name: _____

Para 22, sub para	Action	Responsibility	Information Provided (Y/N)	Comments	Aide Memoire
a)	i) It has adopted measures such that the vessel, Owner and all other nationals comply with all IOTC Conservation and Management Measures; and	Flag CPC			If paragraph a) or b) or c) is satisfied, the vessel may be removed from the IUU Vessels List pursuant to paragraph 27, else the vessel will remain on the list for re-examination by the Compliance Committee and Commission at its next Annual Session..
	ii) it is effectively assuming and will continue to effectively assume its flag State responsibilities with regard to the monitoring and control of the fishing activities of this vessel; and	Flag CPC			
	iii) it has taken effective action against the Owner and crew in response to the IUU fishing activities that resulted in the vessel’s inclusion in the IUU Vessel List including prosecution and imposition of sanctions of adequate severity; or	Flag CPC			
b)	The vessel has changed ownership and that the new Owner can establish the previous Owner no longer has any operational, legal, financial or real interests whether direct or indirect in the vessel or exercises control over it and that the new Owner has not participated in any IUU fishing activities in the preceding 5 years; or	Flag CPC			
c)	The vessel has been sunk or scrapped.	Flag CPC			
d)	Any prosecution and sanctions regarding the vessel that conducted IUU fishing activities has been concluded by both the nominating CPC and the flag State of the vessel.	Flag CPC			

ANNEX V

A SUMMARY OF THE TIMEFRAME FOR ACTIONS TO BE TAKEN IN RESPECT OF THIS RESOLUTION

Step	Timeframe	Actions to be taken	Responsibility	Paragraph
1	70 days before CoC meeting (minimum)	Information transmitted to the IOTC Executive Secretary	CPCs	5,6
2	55 days before CoC Meeting	Compilation of all information received on the alleged IUU fishing activities into the Draft IUU Vessel List together with the IUU Vessel List. Transmit the Draft IUU Vessel List to all CPCs and to flag States with vessels on the list (if not CPCs).	IOTC Executive Secretary	8
3	15 days before CoC meeting	Provide any information to the IOTC Executive Secretary regarding the alleged IUU fishing activities.	Flag States	10
4	10 days before CoC meeting	Transmit the Draft IUU Vessel List, and any additional information on vessels on the IUU Vessel List pursuant to paragraph 22 to all CPCs and to flag States with vessels on the list (if not CPCs).	IOTC Executive Secretary	11
5	Any time	Submit to the IOTC Executive Secretary any additional information relevant to the establishment of the IUU Vessels List	CPCs and flag States	12
6	As soon as practicable prior to CoC	Circulate additional information pursuant to paragraph 12.	IOTC Executive Secretary	12
7	CoC Meeting	Review the Draft IUU Vessel List including the information provided by the nominating CPC and the flag State, including information/clarification provided by either party during the meeting. Submit a Provisional IUU Vessel List and provide recommendations to the Commission.	All CPCs, except the flag State and nominating CPC	13-15
8	CoC Meeting	Examine the IUU vessel List and provide recommendations to the Commission regarding the removal of any vessels	All CPCs, except the flag State and nominating CPC	17



Step	Timeframe	Actions to be taken	Responsibility	Paragraph
9	Commission meeting	Review the Provisional IUU Vessel List, including any new information/clarification provided by the nominating CPC and flag State during the session; Review the IUU Vessel List. Adopt the Final IUU Vessel List.	All CPCs, except the flag State and nominating CPC	17,19
10	Immediately following the annual session	Publish the IUU Vessel List on the IOTC website and transmit the IUU Vessel List to the FAO, the organisations set out in paragraph 31 and 32, CPCs and the flag State (if not a CPC).	IOTC Executive Secretary	29

RESOLUTION 18/04 ON BIOFAD EXPERIMENTAL PROJECT

Keywords: BIOFAD, Research project, biodegradability

The Indian Ocean Tuna Commission (IOTC),

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks under its competence and to encourage the sustainable development of fisheries based on such stocks while minimising the level of bycatch;

HAVING REGARD to Annex V of the International Convention for the Prevention of Pollution from Ships (MARPOL);

RECOGNISING that promoting the use of natural origin biodegradable materials in the construction of FADs could contribute to the reduction of marine litter;

NOTING that the IOTC Scientific Committee advised the Commission that only non-entangling FADs, both drifting and anchored, should be designed and deployed to prevent the entanglement of sharks, marine turtles and other species;

RECALLING that [Resolution 12/04](#) established that the Commission at its annual session in 2013 should consider the recommendations of the IOTC Scientific Committee as regards the development of improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials, together with socio-economic considerations, with a view to adopting further measures to mitigate interactions with marine turtles in fisheries covered by the IOTC Agreement;

RECALLING that Resolution 17/08 [~~superseded by Resolution 18/08 then by Resolution 19/02~~] established procedures on a fish aggregating device (FAD) management plan, including more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs and use of biodegradable materials to reduce the incidence of entanglement of non-target species as specified in Annex III of Resolution 17/08 [~~superseded by Resolution 18/08 then by Resolution 19/02~~]; calling to reduce the amount of synthetic marine debris and promote the use of biodegradable materials (such as hessian canvas, hemp ropes, etc.);

Further RECALLING that the Scientific Committee noted the challenges in conducting studies on biodegradable FADs (BIOFADs), such as the limit on the number of active FADs per purse seine vessel in the Indian Ocean that

may hinder the deployment of biodegradable FADs following experimental sampling designs, and also engagement with the fleet is necessary in order to incentivise them to deploy biodegradable FADs that may not be successful for fishing;

Furthermore, NOTING that IOTC, along with other tuna RFMOs, recommended and adopted resolutions to promote reduction of the amount of synthetic marine debris by the use of natural or biodegradable materials for drifting FADs;

RECALLING that SC20 ENDORSED (IOTC SC20 paras 157 to 165) a scientific research project (“the BIOFAD Research Project”, IOTC-2017-SC20-INF07) by a consortium ('the Project Consortium') led by the Technological Center for Food and Marine Innovation (AZTI), the Spanish Oceanographic Institute (IEO) and the Institut de recherche pour le développement (IRD) to test the use of biodegradable materials and designs for the construction of drifting FADs in natural environmental conditions and REQUESTED the project to present the outcomes of the at sea trials to the next WPEB, WPTT and SC meetings;

NOTING that, the Scientific Committee ENDORSED that the Project Consortium carries out a large-scale experiment with the deployment of 1000 biodegradable FADs with experimental sampling designs (BIOFADs) in 2018-2019 in order to obtain sufficient data by the BIOFAD Research Project to conduct reliable scientific research and to avoid the limitations identified in earlier small scale trials (250 in each quarter to analyse temporal effects). The SC equally noted that the project counts on the active collaboration of Seychelles, Mauritius and European Union purse seiners with a participation of 42 purse seine vessels operating in the Indian Ocean. The SC noted that in total, each vessel will deploy around 24 BIOFADs, 6 BIOFADs by trimester (2 BIOFADs per vessel/month for the duration of the project from April 2018 to April 2019).

AGREES, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. To acknowledge and support the Biodegradable FAD (BIOFAD) project with the objective of reducing the impact and the amount of synthetic marine debris of the use of non-biodegradable FAD in the ecosystem as requested in Resolution 17/08 [superseded by Resolution 18/08 then by [Resolution 19/02](#)]. The description of the project is contained in Annex 1.
2. BIOFADs used for the collection of scientific data on biodegradable FADs tested under the supervision of the BIOFAD Project Consortium and the Scientific Committee, and deployed by the Project Consortium, shall not be exempted from the application of FADs limit number established by Resolutions 17/01 [superseded by Resolution 18/01 then by Resolution 19/01, then by [Resolution 21/01](#)] and 17/08 [superseded by Resolution 18/08 then by [Resolution 19/02](#)].
3. As part of the project referred to in paragraph 1, each BIOFAD deployed shall be marked in a clear manner by the Project Consortium to distinguish it from other FADs and to avoid that it becomes unreadable or disassociated with the BIOFAD Research project.
4. Vessels not participating in the Research Project fishing on FADs clearly identified as a BIOFAD shall specifically report to their national scientists the BIOFAD (and devices) status and activities on this BIOFAD (including catch data if applicable). Vessels not participating in the Research Project that encounter such FADs are encouraged to report to their national scientists the BIOFAD (and devices) status and activities on this BIOFAD.



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

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5. The Project Consortium will make available to the IOTC Scientific Committee the results of the project at the latest two months in advance of its 2020 meeting. The Scientific Committee will analyse the outcomes of the project and provide scientific advice on possible additional FAD management options for consideration by the Commission in 2021.

ANNEX I

BIOFAD PROJECT INFORMATION AND GUIDELINES TO DEPLOY AND USE OF BIOFADS

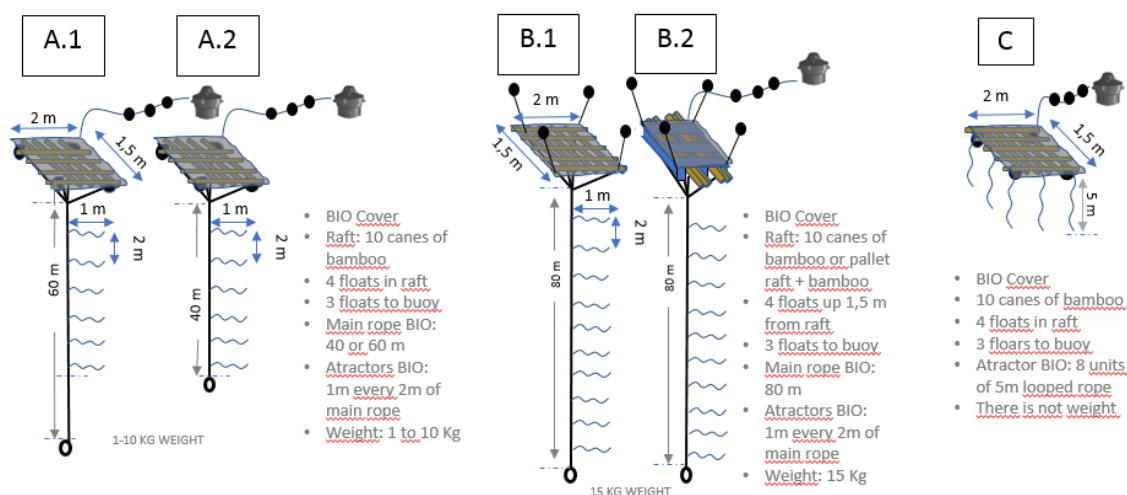
The consortium formed by AZTI, IRD and IEO aims through the project “Testing designs and identify options to mitigate impacts of drifting FADs on the Ecosystem” to address current impediments and to provide solutions that shall support the implementation of non-entangling and biodegradable FADs in the IOTC Convention Area. This project will have the collaboration of the EU, Seychelles and Mauritius purse seine fishery and the International Seafood Sustainability Foundation active. The purpose of this specific contract is to:

- i) to test the use of specific biodegradable materials and designs for the construction of drifting FADs in natural environmental conditions;
- ii) to identify options to mitigate drifting FADs impacts on the ecosystem, and
- iii) to assess the socio-economic viability of the use of BIO FADs (i.e. non-entangling and biodegradable) in the purse seine tropical tuna fishery.

The consortium will oversee both the construction of experimental BIOFADs and the monitoring of deployed BIOFADs, and their paired conventional non-entangling FADs (hereafter named CONFAD), at sea, as well as the data collection and reporting. Purse seine vessels participating in the BIOFAD project in the Indian Ocean will follow the summarized protocol regarding i) material and prototypes selection, ii) deployment strategy and identification of experimental FADs, and iii) data collection and reporting.

i) MATERIAL AND PROTOTYPES

Three are the prototypes selected for the BIOFAD project. These designs include all the details in terms of dimension and materials as guide for their construction by the tuna purse seine industry. These prototypes were designed in consensus and aim to cover the different drifting performance that fisherman currently seek with the conventional non-entangling FADs: superficial FADs (prototype C), semi-superficial FADs (prototypes A1 and A2), and deep FADs (B1 and B2). Synthetic material like plastic gallons, plastic bottles, fishing nets, synthetic canvas, and metallic frame used for the construction of the raft are all prohibited for the construction of BIOFAD. To replace these synthetic material different configuration cotton ropes and high-resistance cotton canvas have been selected.



Summary of the dimensions and materials of the prototypes selected for the BIOFAD project.

ii) DEPLOYMENT STRATEGY AND IDENTIFICATION

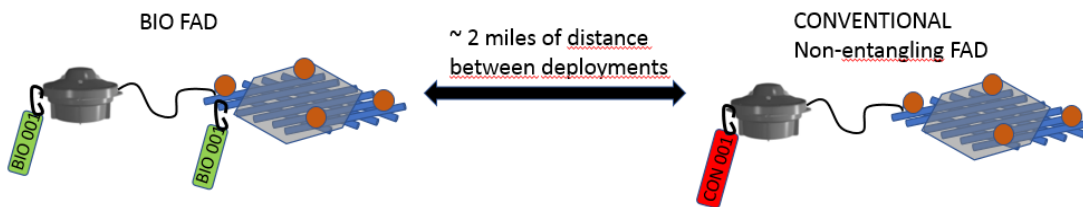
An effective FAD deployment strategy will be adopted considering the PS fleet FAD fishing strategy and its dynamics in the Indian Ocean. A total of 1000 BIOFADs (24 FADs per vessel) are planned to be deployed from April 2018 to

April 2019, 2 BIOFADs per month and vessel (6 BIOFADs per vessel and quarter-season, preferably). Deployment effort will be shared among the 42 purse seiners from Mauritius, Seychelles and EU operating in the Indian Ocean. This will make it approximately 250 FADs being deployed each quarter.

To assess the efficiency of BIOFADs in terms of tuna and non-tuna species aggregation, structure durability and degradation rate, and FAD performance (e.g., drift), comparison between BIOFADs and currently using conventional non-entangling FADs (hereafter named CONFAD) will be conducted.

The following deployment procedure is defined:

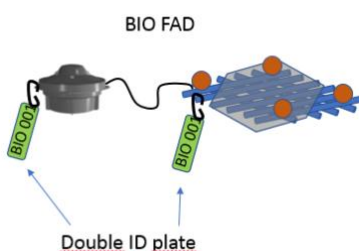
- Every BIOFAD deployment will be accompanied by a “pair” CONFAD deployment.
- The CONFAD construction will be of similar dimension of its pair BIOFAD but made by currently used synthetic material.
- The BIOFAD and its pair CONFAD will use same model/brand of echo-sounder buoy at first deployment.
- The distance between the deployment of BIOFAD and its pair CONFAD will be approximately 2 miles.



Drawing of the deployment strategy for the BIOFAD and its pair CONFAD.

BIOFAD and CONFAD identification procedure are described in the following points:

- All the BIOFADs and CONFADs will be identified in every moment by an identification number to ensure their traceability (e.g. from BIO-0001 to BIO-1000 and from CON-0001 to CON-0001).
- This ID number will always belong to the same BIOFAD or CONFAD through all its lifetime.
- All BIOFADs will be identified by two metallic plates showing the ID number. One of them will be attached to the raft and the other to the echo-sounder buoy associated with the BIOFAD.
- CONFADs as its pair BIOFADs will share same serial number (e.g. CON-0001 and BIO-0001).
- All CONFAD will be identified by a unique metallic plate showing the ID number and attached to the associated echo-sounder buoy.
- The metallic plate attached to the raft of the BIOFAD will never be removed from it. Only if the part of the structure where the plate is attached is replaced, the ID plate will be removed and attached again to the newly replaced part.
- It is very important that when a BIOFAD or CONFAD change hands (i.e. every time there is an echo-sounder buoy replacement), the ID number plate will be transferred from old buoy to newly associated buoy.



Drawing of the procedure to attach the BIOFAD ID number shown in the metallic plate to the raft and associated echo-sounder buoy.

iii) DATA COLLECTION AND REPORTING

The following fishing operations have been considered for the data collection procedure related to BIOFAD and CONFAD:

- In every new deployment of BIOFAD or CONFAD: type of prototype (e.g. A1), ID number of the metallic plate (e.g. BIO-0001), and associated echo-sounder buoy codification number will be collected.
- In every set, visit with buoy replacement, or retrieval of a BIOFAD or CONFAD: ID number of the metallic plate, codification number of the echo-sounder buoy, the prototype type, and FAD's component state control will be recorded. If there is buoy replacement codification number of new buoy and old buoy must be recorded.
- In every simple visit (no buoy replacement) to a BIOFAD or CONFAD: It will encourage to record above described information.

To provide information on BIOFAD components status control the following procedure is defined:

- Every time there is a set on BIOFAD or CONFAD, if possible, the experimental FAD will be lifted up for the assessment of the state control of FAD's components.
- Observers onboard and crew (Skipper/Captain) will be responsible to collect this information.
- All parts of the structure described in the table below will be checked. A scale from 1 to 4 will be applied to value the status of the FADs (1 = Very good, not damaged; 2 = Good, a bit damaged; 3 = Bad, quite damaged; 4 = Very bad, close to sinking). More detailed description of each of the values for each component is also provided.
- Pictures of the components of BIOFAD and CONFAD will be taken whenever possible.
- Every time there is a replacement of any component of the BIOFAD and CONFAD, will be reported in the table below.
- In the case of the BIOFADs, any damaged parts susceptible of replacement will be replaced by biodegradable material, similar to the material used when it was first constructed and keeping design of the original prototype.
- The operator is encouraged to provide any observation to further describe the status of the structure (e.g. degradation % of each component).

Participating vessels are also requested to report data from echo-sounder buoys associated to BIOFADs and CONFADs deployed during the project.

All collected information described above will be reported following a specific form created for the BIOFAD project. An email template has been created for the crew (Skipper/Captain) to provide required information to the Consortium by the following email address biofad@azti.es.



Statu control of BIOFAD and CONFAD						REPLACEMENT	
Floating parts	1	2	3	4	5	YES	NO
Raft							
Floats							
Cover/canvas							
Hanging parts	1	2	3	4	5		
Main rope							
Attractor (looped rope)							
Weight							
1 Very good, not damaged 2 Good, a bit damaged 3 Bad, quite damaged 4 Very bad, close to sinking 5 Unknown							

Vessel name					
Date / Hour:					
Activity (add a X in the correct cell)					
New deployment	Visit	Set	Retrieval	Redeployment	Removal
Number of BIO or CONFAD:					
Prototype (add a X in the correct cell)					
A1	A2	B1	B2	C	
BIO or CONFAD ownership (Yes/No):					
Code echo-sounder buoy old or foreign:					
Code new echo-souder buoy:					
Lift up (Yes/No):					

Image of the email template developed for participating vessels to report required information

RESOLUTION 18/05
**ON MANAGEMENT MEASURES FOR THE CONSERVATION OF THE BILLFISHES: STRIPED
MARLIN, BLACK MARLIN, BLUE MARLIN AND INDO-PACIFIC SAILFISH**

Keywords: Striped marlin, black marlin, blue marlin, Indo-Pacific sailfish, catch limits, scientific research, reference points, data collection, catch reporting

The Indian Ocean Tuna Commission (IOTC),

RECALLING Resolution 15/05 [superseded by Resolution 18/05] on conservation measures for striped marlin, black marlin and blue marlin aiming to reduce the fishing pressure on the marlin species;

RECALLING the available scientific information and advice, in particular the IOTC Scientific Committee conclusions, according to which Striped Marlin, Black Marlin, Blue Marlin and/or Indo-pacific Sailfish are subject to overfishing and, in some cases, overfished with catches in recent years exceeding by far the average catches of the baseline period 2009/2014;

RECALLING [Resolution 12/01](#) on the implementation of the precautionary approach that calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) to apply the precautionary approach in accordance with Articles 5 and 6 of the United Nations Fish Stocks Agreement and further recalling that Article 6.2 therein stipulates that the absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures;

RECALLING that [Resolution 15/01](#) on the recording of catch and effort data by fishing vessels in the IOTC area of competence fixes the IOTC data record system;

RECALLING [Resolution 15/02](#) on the Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) that defines the catch and catch related information to be provided by CPCs to the IOTC secretariat;

CONSIDERING that the SC noted that, catches have increased in 2015 and in 2016 from the average level of 2009-2014 and that the SC therefore recommended that substantial reduction of current catches should be agreed to end overfishing and, whenever possible, to enable the stocks to rebuild ;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

1. To ensure the conservation of the striped marlin (*Tetrapturus audax*), black marlin (*Makaira indica*), blue marlin (*Makaira nigricans*) and Indo-Pacific sailfish (*Istiophorus platypterus*) stocks in the Indian Ocean, Contracting Parties and Cooperating non-Contracting Parties, (CPCs) whose vessels catch those species in the IOTC Area of Competence undertake at least the following national management measures as described below are in place to support the sustainable exploitation of these stocks in line with the IOTC Agreement objectives of ensuring the conservation and optimum utilization of stocks by undertaking the following:

Management Measures: Catch limits

2. CPCs shall endeavour to ensure that the overall catches, of the Indian Ocean Striped Marlin, Black Marlin, Blue Marlin and Indo Pacific Sailfish in any given year do not exceed either the MSY level or, in its absence, the lower limit of the MSY range of central values as estimated by the Scientific Committee.
3. The limits referred to in paragraph 2 correspond to the following:
 - a. Striped Marlin: 3,260 t
 - b. Black Marlin: 9,932 t
 - c. Blue Marlin: 11,930 t
 - d. Indo Pacific Sailfish: 25,000 t
4. If the average annual total catch of any of the species referred to in paragraph 2 in any two consecutive years period from 2020 onward exceeds the limits referred to in paragraph 3, the Commission shall review the implementation and effectiveness of the measures contained in this Resolution and consider the adoption of additional conservation and management measures, as appropriate, by also taking into account the advice of the Scientific Committee referred to in paragraph 14.

Other Management Measures

5. Pending advice from the Scientific Committee on a joint and/or a species specific minimum conservation size, notwithstanding Resolution 17/04 [superseded by [Resolution 19/04](#)], CPCs shall not retain on board, trans-ship, land, any specimen smaller than 60 cm Lower Jaw Fork Length (LJFL) of any of the species referred to in paragraph 2, but shall return them immediately to the sea in a manner that maximizes post-release survival potential without compromising the safety of crew¹.
6. In addition, CPCs may consider the adoption of additional fisheries management measures to limit fishing mortality such as: releasing any specimen brought alive on-board or alongside for taking on board the vessel; modify fishing practices and/or fishing gears to reduce juveniles catches; adopting spatial/temporal management measures to reduce fishing in nursery grounds; limiting days at sea and/or fishing vessels exploiting billfishes.

Recording, Reporting, and Use of the Catch Information

7. CPCs shall ensure that their vessels catching Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish in the IOTC Area of Competence record their catch in accordance with the requirements set out in [Resolution 15/01](#) on the recording of catch and effort data by fishing vessels in the IOTC area of competence or any Resolution superseding it.
8. CPCs shall implement data collection programmes to ensure accurate reporting of Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish catches, released alive and/or discarded, together with effort, size and discard data to IOTC in full accordance with the [Resolution 15/02](#) on the Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs), or any Resolution superseding it.

¹ Notwithstanding paragraph 5, in the case of billfish, when purse seiners unintentionally catch such small fish and freeze them as a part of a purse seine fishing operation, this does not constitute non-compliance as long as such fish are not sold.

9. CPCs shall include in their Annual Reports to the Scientific Committee information on the actions they have taken domestically to monitor catches and to manage fisheries for sustainable exploitation and conservation of Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish.
10. The Commission, shall consider appropriate assistance to developing CPCs for the collection of data on the above-mentioned species.

Scientific Research and Scientific Committee

11. CPCs are encouraged to undertake scientific research on key biological/ecological/behavioural characteristics, life-history, migrations, post-release survival and guidelines for safe release, identification of nursery grounds, improving selectivity of fishing practices and fishing gears, for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish. The results of such researches shall be made available to the Working Party on Billfishes and the Scientific Committee through working documents and their national Annual Reports.
12. The IOTC Working Party on Billfish and the Scientific Committee shall continue their work on assessing and monitoring the status of Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish and provide advice to the Commission.
13. The Scientific Committee and the Compliance Committee shall annually review the information provided and assess the effectiveness of the fisheries management measures reported by CPCs on striped marlin, black marlin, blue marlin and Indo-Pacific sailfish and, as appropriate, provide advice to the Commission.
14. For each of the four species covered by this Resolution, the Scientific Committee shall provide advice:
- a. Options to reduce fishing mortality with a view to recover and/or maintain the stocks in the Green zone of the Kobe Plot with levels of probability ranging from 60 to 90% by 2026 at latest. The advice shall be provided on the basis of the current exploitation pattern as well as of its likely change to take into account the advice under point c. below;
 - b. Options for candidate reference points for their conservation and management in the IOTC Area of Competence;
 - c. Species specific minimum conservation sizes by taking into account the size at maturity and the recruitment size to the fishery by gear as well as its practicability. Where adequate, due to considerations on technical interaction of fisheries, advice shall provide also a minimum conservation size common to the four species.

Final Provision

15. This Resolution supersedes the Resolution 15/05 *On conservation measures for striped marlin, black marlin and blue marlin*.

RESOLUTION 18/07

ON MEASURES APPLICABLE IN CASE OF NON-FULFILMENT OF REPORTING OBLIGATIONS IN THE IOTC

Keywords: zero catches, species group, data collection, reporting obligations and gear group

The Indian Ocean Tuna Commission (IOTC),

GIVEN that following Article XI of the Agreement for the establishment of the IOTC, Contracting Parties agree to provide statistical and other data and information that the Commission may need for the purposes of this Agreement and that nominal catch data, Catch and effort data, size data and fish aggregating devices data should be submitted annually to the IOTC Secretariat by 30 June the year following the fishing activities;

RECALLING Resolutions by IOTC on the Deadlines, Procedures for Data Submission and Statistical Reporting Obligations, notably Resolutions [15/02](#), [15/01](#), [14/05](#), [12/04](#), 10/11 [[superseded by Resolution 16/11](#)], 11/04 [[superseded by Resolution 22/04](#)], [10/08](#) and [01/06](#);

RECOGNISING that funding is available from the Commission for developing CPCs to improve their data collection and submission capabilities;

TAKING INTO ACCOUNT that the Scientific Committee (IOTC–2015–SC18–R) noted with concern the lack of information submitted by CPCs on total catches, catch and effort and size data for various IOTC species, despite their mandatory reporting status, and requested that CPCs comply with IOTC data requirements, given the gaps in available information in the IOTC database and the importance of basic fishery data in order to assess the status of stocks and for the provision of sound management advice;

CONSIDERING that the Scientific Committee recommended that the Commission develop penalty mechanisms through the IOTC Compliance Committee to improve compliance by CPCs that do not currently comply with the submission of basic fishery data requirements as stated in Resolutions [15/01](#) and [15/02](#);

NOTING that incomplete reporting or no data reporting and that, despite the adoption of numerous measures intended to address the matter, lack of compliance with reporting obligations is still a problem for the Scientific Committee and for the Commission;

NOTING that several stocks remain not assessed and some others are assessed with substantial uncertainty, which lead to important risks of depletion of some IOTC species and negative impact in the ecosystem;

FURTHER NOTING that, in order that all IOTC fisheries should be managed in line with the principles of the precautionary approach, it is necessary to take measures aimed at eliminating or reducing non-reporting and misreporting;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. CPCs shall include information in their Annual Reports (*Report of Implementation*) on actions taken to implement their reporting obligations for all IOTC fisheries; including shark species caught in association

with IOTC fisheries, in particular steps taken to improve their data collection for direct and incidental catches.

2. The IOTC Compliance Committee shall review Actions taken by CPCs, as described in paragraph 1, shall be reviewed annually by IOTC Compliance Committee.
3. Following the review carried out by the Compliance Committee, the Commission at its annual session, according to the guidelines attached (**Annex I**), and after having given due consideration to the relevant information provided by the concerned CPCs in these cases, may consider to prohibit CPCs that did not report nominal catch data (exclusively), including zero catches, for one or more species for a given year, in accordance with the [Resolution 15/02](#), paragraph 2 (or any subsequent revision), from retaining such species as of the year following the lack or incomplete reporting until such data have been received by the IOTC Secretariat. Priority shall be given to situations of repeated non-compliance. Any CPC unable to meet these reporting obligations owing to engagement in civil conflict shall be exempt from this measure. The CPC concerned will work with the IOTC Secretariat to identify and implement possible alternative methods for data collection, using established FAO data collection methods.
4. To facilitate the reporting of zero catches as required under paragraph 1 of Annex I of this Resolution, the following procedure shall apply:
 - a) as part of the IOTC IRC electronic form used to report nominal catches, the Secretariat shall include a matrix by IOTC species as well as the most commonly caught elasmobranch species according to records of catches and incidents as established in [Resolution 15/01 on the recording of catch and effort data by fishing vessels in the IOTC area of competence \(or any subsequent superseding Resolution\)](#) and main IOTC gear groups on the basis of the format set out in Annex II of this Resolution;
 - b) CPCs, as part of their total catch data reporting, shall complete the cells in the matrix with either a value of 'one' (1) to indicate where that CPC had catches (positive catch) for a particular species/gear combination or a value of 'zero' (0) to indicate where that CPC had no catches (zero landings + zero discards) for a particular species/gear combination;
 - c) The "Catch columns" section of the electronic Form IRC shall only include reports of positive catches.
5. The Commission may consider expanding the matrix to include additional species under the competence of IOTC as well as stock/gear combinations as appropriate.
6. This Resolution supersedes Resolution 16/06 *On Measures Applicable in case of non-fulfilment of reporting Obligations in the IOTC*.

ANNEX 1
GUIDELINES TO FACILITATE THE APPLICATION OF PARAGRAPH 3

1. The Commission will follow the schedule and steps set forth below to guide application of paragraph 3 of this Resolution:

<i>Data review year</i> <i>(starting in 2016 and annually thereafter)</i>	<i>Following the decision on retention prohibition</i>
<p>1. CPCs submit Total catch data to the IOTC Secretariat in accordance with the Resolution 15/02 and Scientific Committee template, including zero catches;</p> <p>2. The IOTC Secretariat, in consultation with the Scientific Committee will include in the compliance report information detailing data submission status by species or stock (e.g. complete, incomplete, or missing) for each CPC;</p> <p>3. The Compliance Committee reviews the report on the basis of any other relevant information provided by the IOTC Executive Secretary, the Scientific Committee and CPCs. Based on this review, the Compliance Committee identifies in its report those CPCs that did not submit required data (i.e. data are missing or incomplete) and notifies them that they may be prohibited by the Commission from retaining the concerned species/stock from the relevant fishery as of the following year unless and until the data are provided to the Secretariat.</p> <p>4. Compliance Committee also considers if any other actions consistent with this Resolution should be recommended.</p>	<p>1. CPCs with a finding of "missing" or "incomplete" data submissions cannot retain those species;</p> <p>2. Such CPCs should seek to rectify the situation by sending the missing data to the IOTC Executive Secretary as soon as feasible;</p> <p>3. In consultation, as necessary and appropriate, with the Chairpersons of the Compliance Committee and the Commission, the IOTC Executive Secretary will review the new data submission in a timely manner to determine if it is complete. If the data appear to be complete, the Secretariat will promptly inform the CPC in question that it can resume retention of the concerned species/stock in the relevant fishery.</p> <p>4. At the Annual Meeting following the intersessional provision of data and the decision to permit resumption of retention, the Compliance Committee reviews this decision and, if it considers that data are still incomplete, the Compliance Committee will again take the actions specified in the previous column, paragraphs 3 and 4.</p>



Annex II

EXAMPLE OF ZERO CATCH MATRIX – TO BE FURTHER ADJUSTED BY IOTC SECRETARIAT

T1 "Zero Catch Matrix"				Gear Group						
Species Group	Species Code	Species Name	Stock	HL	BB	LL	PS	TR	GN	Other
Temperate Tunas	ALB	<i>Thunnus alalunga</i>	IO							
	SBT	<i>Thunnus maccoyii</i>	IO							
Tropical Tunas	BET	<i>Thunnus obesus</i>	IO							
	SKJ	<i>Katsuwonus pelamis</i>	IO							
	YFT	<i>Thunnus albacares</i>	IO							
Neritics Tunas	LOT	<i>Thunnus tonggol</i>	IO							
	KAW	<i>Euthynnus affinis</i>	IO							
	FRI	<i>Auxis thazard</i>	IO							
	BLT	<i>Auxis rochei</i>	IO							
	COM	<i>Scomberomorus commerson</i>	IO							
	GUT	<i>Scomberomorus guttatus</i>	IO							
Billfishes	BUM	<i>Makaira nigricans</i>	IO							
	BLM	<i>Makaira indica</i>	IO							
	MLS	<i>Tetrapturus audax</i>	IO							
	SFA	<i>Istiophorus platypterus</i>	IO							
	SWO	<i>Xiphias gladius</i>	IO							
Other "Species" as requested by Resolution 15/01 for specific gears (in grey not required)	SSP	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	IO							
	BSH	Blue shark (<i>Prionace glauca</i>)	IO							
	MAK	Mako sharks (<i>Isurus spp.</i>)	IO							
	POR	Porbeagle shark (<i>Lamna nasus</i>)	IO							
	SPN	Hammerhead sharks (<i>Sphyrna spp.</i>)	IO							
	FAL	Silky shark (<i>Carcharhinus falciformis</i>)	IO							
	MZZ	Other bony fishes	IO							
	SKH	Other sharks	IO							
	THR	Thresher sharks (<i>Alopias spp.</i>)	IO							
	OCS	Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	IO							
	TIG	Tiger shark (<i>Galeocerdo cuvier</i>)								
	PSK	Crocodile shark (<i>Pseudocarcharias kamoharai</i>)								
	WSH	Great white shark (<i>Carcharodon carcharias</i>)								
MAN	Mantas and devil rays (<i>Mobulidae</i>)									
PLS	Pelagic stingray (<i>Pteroplatytrygon violacea</i>)									
	Other rays									

GREY AREAS SHOULD NOT BE FILLED IN ACCORDANCE WITH LOGBOOKS SPECIFIED IN RESOLUTION 15/01

RESOLUTION 18/09

ON A SCOPING STUDY OF SOCIO-ECONOMIC DATA AND INDICATORS OF IOTC FISHERIES

Keywords: Socio-Economics, scoping study.

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objective of the Commission provided for in Article V to promote cooperation among its Members with a view to ensuring, through appropriate management, the conservation and optimum utilization of stocks covered by this Agreement and encouraging sustainable development of fisheries based on such stocks;

FURTHER CONSIDERING the responsibility of the Commission provided for in Article V(2)(d) to keep under review the economic and social aspects of the fisheries based on the stocks covered by the Agreement bearing in mind, in particular, the interest of developing coastal states;

FURTHER CONSIDERING the objective of the Commission to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

RECOGNISING the special requirements of the developing states, particularly Small Island Developing States in Article 24, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECALLING paragraph 75 of the 20th Session of the IOTC Scientific Committee report (IOTC-2017-SC20-R) that states:

“75. The SC AGREED that the development of the ecosystem report card is a first step in developing the approach. Initiating the process with the development and monitoring of simple indicators and then linking these to management objectives and actions is an iterative process where the data collection and research activities are based on higher level guidance from the Commission. The SC noted that the consideration of socioeconomic dimensions are specifically mentioned in the IOTC Agreement and so the scientific subsidiary bodies are therefore mandated to work on these issues as well.”

RECALLING Article IV, paragraph 2(d) of the IOTC Agreement which states:

“2. In order to achieve these objectives, the Commission shall have the following functions and responsibilities, in accordance with the principles expressed in the relevant provisions of the United Nations Convention on the Law of the Sea: (d) to keep under review the economic and social aspects of the fisheries based on the stocks covered by this Agreement bearing in mind, in particular, the interests of developing coastal state”

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The terms of reference for a scoping study of socio-economic aspects of IOTC fisheries, are those specified in Annex I.



2. Pursuant to Article XII.5 of the Agreement, the Commission shall review the results of the scoping study and determine if a permanent Working Party on the Socio-Economic Aspects of the Fisheries the IOTC Area of the Competence is needed, at its 23rd Session in 2019.
3. The IOTC Secretariat shall facilitate the process of recruitment of the consultant or consulting company for delivery of the scoping study as specified in Annex I. The Commission requested the Secretariat to seek sources of extra-budgetary funds to support the proposed work.
4. The CPCs shall cooperate with the consultant for the purpose of this study, using their best endeavors and in line with their respective national legislation.

ANNEX I

TERMS OF REFERENCE FOR A SCOPING STUDY ON THE SOCIO-ECONOMIC DATA AND INDICATORS OF IOTC FISHERIES

Objectives

1. To describe the economic and social aspects of the fisheries, bearing in mind, in particular, the interests of developing coastal States, and identify the availability of data and socio-economic indicators that would describe the respective CPCs economic and social aspects of fisheries, including but not limited to: socio-economic contribution to the fisheries, economic dependence on fishery resources; income from exports; employment conditions and interactions between fleet segments; impact of fishery resource rents, including fisheries agreements with third parties to the local economies in terms of income, investments and jobs.
2. To evaluate and document what socio-economic data have been, and are currently collected by CPCs or other organisations that are in the public domain, on IOTC fisheries;
3. To evaluate and document what socio-economic data have been, and are currently collected by CPCs or other organisations but are not in the public domain on IOTC fisheries, where feasible under domestic law;
4. To evaluate if a) the data can be feasibly and uniformly collected, and b) would be adequate to calculate the indicators proposed. This should include, where feasible, a discussion on the data themselves, data quality, time periods and coverage rates;
5. To make recommendations on indicators taking into consideration the available data. To make recommendations on data requirements and harmonisation; and
6. To make recommendations on data management, reporting and associated costs to IOTC.
7. The consultant shall consider existing initiatives focusing on the socio-economic importance of fisheries, including, where applicable, the Overseas Fisheries Cooperation Foundation of Japan (OFCF) pilot project on socio-economic aspect of fisheries, to avoid any duplication

Outputs

8. A draft of the Consultant's report will be provided 120 days in advance of the 23rd Session of the IOTC (S23) in 2019.
9. The CPCs shall be tasked to review the report and provide feedback to the Consultant 60 days before the 23rd Session of the IOTC (S23), via the IOTC Secretariat.
10. The final Consultant's report shall be submitted to the IOTC Secretariat no later than 30 days prior to the commencement of the 23rd Session in 2019, in accordance with the IOTC Rules of Procedure (2014).
11. The final Consultant's report should be presented to the Commission for consideration at its meeting in 2019 and a presentation by the Consultant during the Session to answer any questions from CPCs.



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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

ACTIVE CMMs ADOPTED AT THE TWENTY-FIRST SESSION OF THE IOTC

2017

RESOLUTION 17/02
WORKING PARTY ON THE IMPLEMENTATION OF CONSERVATION AND MANAGEMENT
MEASURES (WPICMM)

Keywords: Conservation and Management Measures; Compliance Committee

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the objective of the Agreement (Article V) is ‘*to adopt, in accordance with Article IX and on the basis of scientific evidence, Conservation and Management Measures, to ensure the conservation of the stocks covered by this Agreement and to promote the objective of their optimum utilisation throughout the Area*’;

RECOGNISING the annual level of illegal, unreported and unregulated (IUU) fishing in the IOTC area of competence is estimated to be in the order of many hundreds of dollars and the urgent need to better manage the tuna and tuna-like species under the IOTC mandate;

ALSO RECOGNISING the decision of the Commission to establish the necessary subsidiary bodies to monitor the implementation by CPCs with the Agreement and the Commission’s Conservation and Management Measures, assist CPCs to enhance their compliance capacity and conserve the harvesting levels of tuna and tuna-like species and their associated ecosystems at sustainable levels;

CONSIDERING the fact that the work of the Compliance Committee has increased to a level which can no longer be adequately addressed during its annual session, specifically the technical evaluation and planning elements for supporting CPC implementation of CMMs;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. Pursuant to Article XII.5 of the Agreement, the Commission establishes a permanent Working Party on the Implementation of Conservation and Management Measures (WPICMM) which shall act as an advisory body to the Commission via the Compliance Committee.
2. The terms of reference for the WPICMM are those specified in **Annex I**.
3. This Resolution shall be incorporated within the IOTC Rules of Procedure as its next revision.
4. This Resolution supersedes IOTC Resolution 16/12 *Working Party on the Implementation of Conservation and Management Measures (WPICMM)*.



ANNEX I

TERMS OF REFERENCE FOR A WORKING PARTY ON THE IMPLEMENTATION OF CONSERVATION AND MANAGEMENT MEASURES (WPICMM)

1. The procedures of the Working Party on the Implementation of Conservation and Management Measures (WPICMM) shall be governed *mutatis mutandis* by the Rules of Procedure of the Commission.

Objectives:

2. The objective of the (WPICMM) is to:

- a) Alleviate the technical discussions, workload and time pressures on the Compliance Committee, and permit it to focus on higher level compliance implementation strategies in its work for the Commission;
- b) Enhance the technical capacity of Contracting Party (Member) and Cooperating Non-Contracting Party (CNCP) (collectively termed CPCs) to understand and implement IOTC Conservation and Management Measures (CMMs);
- c) Prioritise implementation issues and develop operational standards for use by CPCs.

Composition:

3. The WPICMM shall be composed by fisheries compliance officers (or other relevant officer) of the CPCs, scientists, fishers managers, fishing industry representatives, administrators and other interested stakeholders, in accordance with the IOTC Rules of Procedure.

Mandate:

4. Examine all aspects of CPCs technical implementation of CMMs and recommending ways to enhance the level of implementation;

5. Examine Monitoring, Control and Surveillance (MCS) technical matters in order to provide the Compliance Committee with options for strengthening MCS;

6. Review the reporting requirements contained within CMMs in order to harmonize and streamline;

7. Develop a methodology for the assessment of implementation by CPCs, for producing the Country Compliance Reports provided annually to the Compliance Committee and flag States;

8. Review and assess the effectiveness and practical aspects of implementation of CMMs adopted by the Commission in order to identify deficiencies and implementation constraints faced by CPCs, and to recommend options for amendments;

9. Propose actions to address deficiencies in implementation;

10. Development of minimum regional standards for implementation of CMMs;

11. Develop a harmonized assessment criteria to identify vessels presumed to have engaged in illegal, unreported and unregulated (IUU) fishing activities;



12. Monitor the development of, and recommend further actions for the IOTC list of vessels presumed to have engaged in illegal, unreported and unregulated (IUU) fishing activities, including where requested by the Compliance Committee or involved CPCs, a review of the evidence to be presented, where such evidence can be made available to the WPICMM;
13. Monitor the development of, and recommend actions for the list of Large Scale Tuna Longline Vessels (LSTLVs)/carrier vessels presumed to have committed infractions of IOTC CMMs, as recorded by observers deployed under the at-sea transshipment programme;
14. Provide recommendations to the Compliance Committee to assist CPCs in the design and implementation of national MCS systems;
15. Provide recommendations to the Compliance Committee to assist CPCs in the design and implementation of enforcement actions to ensure compliance with IOTC CMMs;
16. Development of regional capacity building mechanisms to assist CPCs to meet the regional minimum terms and conditions or standards for implementation of the CMMs;
17. Provide recommendations for the strengthening of the implementation of CMMs and capacity building activities, including compliance support missions, regional/national training courses and workshops, to be funded under the special fund for capacity building or extra budgetary contributions;
18. Develop recommendations and guidelines for a schedule of sanctions for non-compliance with IOTC CMMs for consideration by the CPCs and the Commission.
19. Review compliance with data reporting obligations by CPCs and recommend actions for implementation.
20. Other tasks as assigned by the Compliance Committee or Commission.
21. The WPICMM would meet once a year, back to back with the meeting of the Compliance Committee, and shall report on its work to the Compliance Committee at its annual session.



RESOLUTION 17/05
ON THE CONSERVATION OF SHARKS CAUGHT IN ASSOCIATION WITH FISHERIES
MANAGED BY IOTC

Keywords: sharks, finning, naturally-attached fins, NEAFC, NAFO

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING [Resolution 12/01](#) *On the implementation of the precautionary approach* calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) to apply the precautionary approach in accordance with Article V of the United Nations Fish Stocks Agreement;

CONCERNED by the continued failure of IOTC CPCs to submit complete, accurate and timely catch records for sharks in accordance with existing IOTC Resolutions;

RECOGNISING the need to improve the collection of species specific data on catch, discards and trade as a basis for improving the conservation and management of shark stocks and aware that identifying sharks by species is rarely possible when fins have been removed from the carcass;

RECALLING that United Nations General Assembly Resolution on Sustainable Fisheries, adopted annually by consensus, since 2007 (62/177, 63/112, 64/72, 65/38, 66/68, 67/79, 68/71, 69/109,70/75 and A/RES/71/123) calls upon States to take immediate and concerted action to improve the implementation of and compliance with existing regional fisheries management organisation or arrangement measures that regulate shark fisheries and incidental catch of sharks, in particular those measures which prohibit or restrict fisheries conducted solely for the purpose of harvesting shark fins, and, where necessary, to consider taking other measures, as appropriate, such as requiring that all sharks be landed with fins naturally attached;

FURTHER RECALLING that the FAO International Plan of Action for Sharks calls on States to encourage full use of dead sharks, to facilitate improved species-specific catch and landings data and monitoring of shark catches and the identification and reporting of species-specific biological and trade data;

AWARE that despite regional agreements on the prohibition of shark finning, shark fins continue to be removed on board and the rest of the shark carcass discarded into the sea;

EMPHASISING the recent recommendations of IOTC and WCPFC Scientific Committees that the use of fin-to-carcass weight ratios is not a verifiable means of ensuring the eradication of shark finning and that it has proven ineffective in terms of implementation, enforcement and monitoring;

NOTING the adoption of Recommendation 10:2015 *on Conservation of Sharks Caught in Association with Fisheries Managed by the North-East Atlantic Fisheries Commission (NEAFC)* and Article 12 of the North-West Atlantic Fisheries Organisation (NAFO), which establish the fins attached policy as exclusive option for ensuring the shark finning ban in the NEAFC and NAFO fisheries;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. This measure shall apply to all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party (CPC) and on the IOTC Record of Authorised Vessels, or authorised to fish for tuna or tuna-like species managed by the IOTC.
2. CPCs shall take the necessary measures to require that their fishermen fully utilise their entire catches of sharks, with the exception of species prohibited by the IOTC. Full utilisation is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.



3.
 - a) **Sharks landed fresh:** CPCs shall prohibit the removal of shark fins on board vessels. CPCs shall prohibit the landing, retention on-board, transshipment and carrying of shark fins which are not naturally attached to the shark carcass until the first point of landing.
 - b) **Sharks landed frozen:** CPCs that do not apply sub-paragraph 3 a) for all sharks shall require their vessels to not have on board fins that total more than 5% of the weight of sharks on board, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5 % ratio through certification, monitoring by an observer, or other appropriate measures.
 - c) CPCs are encouraged to consider to progressively implement the measures described in sub-paragraph 3 a) to all shark landings. Paragraph 3 will be revisited by the Commission in its 2019 Annual Meeting in light of recommendations from the Scientific Committee, using the best available science and case studies from other CPCs already prohibiting the removal of shark fins on board vessels.
4. In fisheries in which sharks are unwanted species, CPCs shall, to the extent possible, encourage the release of live sharks, especially juveniles and pregnant sharks that are caught incidentally and are not used for food and/or subsistence. CPCs shall require that fishers are aware of and use identification guides (e.g. *IOTC Shark and Ray Identification in Indian Ocean Fisheries*) and handling practices.
5. Without prejudice to paragraph 3, in order to facilitate on-board storage, shark fins may be partially sliced through and folded against the shark carcass, but shall not be removed from the carcass until the first point of landing.
6. CPCs shall report data for catches of sharks no later than 30 June of the following year, in accordance with IOTC data reporting requirements and procedures in [Resolution 15/02](#) *mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)* (or any subsequent superseding resolution), including all available historical data, estimates and life status of discards (dead or alive) and size frequencies.
7. CPCs shall prohibit the purchase, offer for sale and sale of shark fins which have been removed on-board, retained on-board, transhipped or landed, in contravention to this Resolution.
8. The Commission shall develop and consider for adoption at its regular annual session in 2017 mechanisms to encourage CPCs to comply with their reporting requirement on sharks, notably on the most vulnerable shark species identified by the IOTC Scientific Committee.
9. The IOTC Scientific Committee shall request that the IOTC Working Party on Ecosystems and Bycatch continue its work on identifying and monitoring the status of sharks until such time as comprehensive assessments are possible for all relevant shark species/groups. In particular, the IOTC Working Party on Ecosystems and Bycatch will establish the Terms of Reference for the Commission to establish a long term-project on sharks in IOTC, with the aim to ensure the collection of data required for performing reliable stock assessments for key shark species. The project will include:
 - a) the identification of data gaps for key shark species in IOTC;
 - b) the collection of relevant data, including through direct contacts with CPC national administrations, research institutes and stakeholders;
 - c) any other activity that could contribute to improving the collection of data required for performing stock assessments of key shark species in IOTC.



The IOTC Scientific Committee will incorporate results of the project in its reports on sharks and based on progress achieved will propose a timeframe for performing stock assessment of key sharks species. CPCs are encouraged to contribute financially to the implementation of the project.

10. The IOTC Scientific Committee shall review annually the information reported by CPCs pursuant to this Resolution and, as necessary, provide recommendations to the Commission on ways to strengthen the conservation and management of sharks within IOTC fisheries.
11. CPCs shall undertake research to:
 - a) identify ways to make fishing gears more selective, where appropriate, including research into the effectiveness of prohibiting wire leaders;
 - b) improve knowledge on key biological/ecological parameters, life-history and behavioural traits, migration patterns of key shark species;
 - c) identify key shark mating, pupping and nursery areas; and
 - d) improve handling practices for live sharks to maximise post-release survival.
12. The Commission shall consider appropriate assistance to developing CPCs for the identification of shark species/ groups and the collection of data on their shark catches.
13. This Resolution supersedes Resolution 05/05 *concerning the conservation of sharks caught in association with fisheries managed by the IOTC.*



RESOLUTION 17/07
ON THE PROHIBITION TO USE LARGE-SCALE DRIFTNETS IN THE IOTC AREA

(Objection received from Pakistan: does not apply on Pakistan)

Keywords: large-scale driftnets, gillnets, EEZ, cetaceans, marine mammals

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the United Nations General Assembly (UNGA) Resolution 46/215 calls for a global moratorium on large-scale high seas driftnet fishing and that IOTC Resolution 12/12 [superseded by Resolution 17/07] prohibits the use of large-scale driftnets on the high seas in the IOTC; and also that both texts recognize the negative impact of such fishing gears;

NOTING that a high number of vessels are engaged in large scale driftnet fishing in the Exclusive Economic Zones (EEZ) and offshore waters;

MINDFUL that large scale driftnet fisheries have a major impact in the ecosystems, the capacity to catch species of concern to the IOTC, and also that they are likely to undermine the effectiveness of IOTC Conservation and Management Measures;

TAKING INTO ACCOUNT the available scientific information and advice, in particular the IOTC Scientific Committee conclusions establishing that billfishes and Spanish mackerels are overexploited;

NOTING that large scale driftnets are regularly being used with lengths in excess of 4,000 m (and up to 7,000 m) within the EEZs and that those used within the EEZ may sometimes drift onto the high seas in contravention of Resolution 12/12 [superseded by Resolution 17/07];

Furthermore, NOTING that the Scientific Committee reiterated its previous recommendation that the Commission should consider whether a ban on large scale driftnets should also apply within the EEZs given the negative ecological impacts of large scale driftnets in areas frequented by marine mammals and turtles;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. This Resolution applies to vessels registered on the IOTC Record of Authorised vessels that use driftnets for the purpose of targeting tuna and tuna-like species in the IOTC Area of competence.
2. The use of large-scale driftnets¹ on the high seas within the IOTC area of competence shall be prohibited. The use of large-scale driftnets in the entire IOTC area of competence shall be prohibited by 1 January 2022.
3. Each Contracting Party and Cooperating Non-Contracting party (hereinafter referred to as CPCs) shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets while on the high seas in the IOTC area of competence. They shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets in the entire IOTC area of competence by 1 January 2022.

¹ "Large-scale driftnets" are defined as gillnets or other nets or a combination of nets that are more than 2.5 kilometres in length whose purpose is to enmesh, entrap, or entangle fish by drifting on the surface of, or in, the water column.



4. A CPC-flagged fishing vessel will be presumed to have used large-scale driftnets in the IOTC area of competence if it is found operating in the IOTC area of competence and is configured² to use large-scale driftnets.
5. For the purposes of monitoring the implementation of this Resolution, CPCs must notify the Secretariat of any CPC-flagged vessel using large-scale driftnets in their EEZs before the 31st of December 2020.
6. CPCs shall include in their Annual Reports of implementation a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing in the IOTC area of competence.
7. The Commission shall periodically assess whether additional measures should be adopted and implemented to ensure that large-scale driftnets are not used in the IOTC area of competence and to take into account the latest advice of the Scientific Committee. The first such assessment shall take place in 2023.
8. Nothing in this measure shall prevent CPCs from applying more stringent measures to regulate the use of large-scale driftnets.
9. This Resolution supersedes Resolution 12/12 *to prohibit the use of large-scale driftnets on the high seas in the IOTC area.*

² "Configured" to use large-scale drift-nets meaning having on board assembled gear that collectively would allow the vessel to deploy and retrieve large-scale driftnets.



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ACTIVE CMMs ADOPTED AT THE TWENTIETH SESSION OF THE IOTC

2016

RESOLUTION 16/02

ON HARVEST CONTROL RULES FOR SKIPJACK TUNA IN THE IOTC AREA OF COMPETENCE

(Objection from Australia: not binding on Australia)

Keywords: Skipjack tuna; Reference Points; Harvest Control Rules; Precautionary Approach; Management Strategy Evaluation.

The Indian Ocean Tuna Commission (IOTC),

NOTING Article V, paragraph 2(c), of the IOTC Agreement is to adopt, in accordance with Article IX and on the basis of scientific evidence, Conservation and Management Measures to ensure the conservation of the stocks covered by the Agreement;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States, Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas and of Article 24 of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) regarding recognition of the special requirements of developing states;

RECOGNISING [Resolution 12/01](#) *On the implementation of the precautionary approach* calls on the Indian Ocean Tuna Commission to implement and apply the precautionary approach, in accordance Article 6 of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA);

RECOGNISING the ongoing discussions on allocation and the need to avoid prejudicing future decision of the Commission;

FURTHER CONSIDERING the call by the United Nations General Assembly Resolution 70/75 upon the states to increase the reliance on scientific advice in developing, adopting and implementing conservation and management measures and to take into account the special requirements of developing states, including Small Island developing States as highlighted in the SIDS Accelerated Modalities of Action (SAMOA) Pathway;

CONSIDERING the recommendations adopted by the KOBE II, held in San Sebastian, Spain, June 23 – July 3 2009; implementing where appropriate a freeze on fishing capacity on a fishery by fishery basis and such a freeze should not constrain the access to, development of, and benefit from sustainable tuna fisheries by developing coastal States;

TAKING INTO ACCOUNT the need to have due regard for the interests of all Members concerned, in conformity with the rights and obligations of those Members under international law and in particular, to the rights and obligations for developing countries;

RECALLING Article 6, paragraph 3(b) of UNFSA that calls on States to implement the precautionary approach using the best scientific information available, using stock-specific reference points and outlining the action to be taken if they are exceeded;

FURTHER RECALLING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, inter alia, on the basis of the precautionary approach;

ACKNOWLEDGING that implementing pre-agreed harvest strategies including harvest control rules is considered a critical component of modern fisheries management and international best practices for fisheries management;

FURTHER NOTING that a harvest control rule encompasses a set of well-defined, pre-agreed rules or actions used for determining a management action in response to changes in indicators of stock status with respect to reference points;

NOTING that the Scientific Committee at its 17th Session, recommended the Commission consider an alternative approach to identify biomass limit reference points, such as those based on biomass depletion levels, when the MSY-based reference points are difficult to estimate. In cases where MSY-based reference points can be robustly estimated, limit reference points may be based around MSY;

FURTHER NOTING that the Scientific Committee also recommended that in cases where MSY-based reference points cannot be robustly estimated, biomass limit reference points be set at 20% of unfished levels ($B_{LIM} = 0.2B_0$);

ACKNOWLEDGING that the IOTC Scientific Committee has initiated a Commission requested process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on HCRs;

RECALLING obligations and agreements under Resolutions [12/02](#)¹, [15/01](#)², [15/02](#)³, and [15/10](#)⁴;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

Objectives

1. To maintain the Indian Ocean Tuna Commission Skipjack tuna stock in perpetuity, at levels not less than those capable of producing maximum sustainable yield (MSY) as qualified by relevant environmental and economic factors including the special requirements of Developing Coastal States and Small Island Developing States in the IOTC area of competence and considering the general objectives identified in [Resolution 15/10](#) (or any subsequent revision).
2. To use a pre-agreed harvest control rule (HCR) to maintain the Skipjack tuna stock at, or above, the target reference point (TRP) and well above the limit reference point (LRP), specified in [Resolution 15/10](#) (or any subsequent revision).

Reference Points

3. Consistent with paragraph 2 of [Resolution 15/10](#), the biomass limit reference point, B_{lim} , shall be 20% of unfished spawning biomass⁵ (i.e. $0.2B_0$).
4. Consistent with paragraph 3 of [Resolution 15/10](#), the biomass target reference point, B_{targ} , shall be 40% of unfished spawning biomass (i.e. $0.4B_0$).
5. The HCR described in paragraphs 6–12 seeks to maintain the Skipjack tuna stock biomass at, or above, the target reference point while avoiding the limit reference point.

Harvest Control Rule (HCR)

6. The Skipjack tuna stock assessment shall be conducted every three (3) years, with the next stock assessment to occur in 2017. Estimates of 7(a–c) shall be taken from a model-based stock assessment that has been reviewed by the Working Party on Tropical Tunas and endorsed by the Scientific Committee via its advice to the Commission.
7. The Skipjack tuna HCR shall recommend a total annual catch limit using the following three (3) values estimated from each Skipjack stock assessment. For each value, the reported median from the reference case adopted by the Scientific Committee for advising the Commission shall be used.
 - a) The estimate of current spawning stock biomass (B_{curr});
 - b) The estimate of the unfished spawning stock biomass (B_0);
 - c) The estimate of the equilibrium exploitation rate (E_{targ}) associated with sustaining the stock at B_{targ} .
8. The HCR shall have five control parameters set as follows:
 - a) Threshold level, the percentage of B_0 below which reductions in fishing mortality are required, $B_{thresh} = 40\%B_0$. If biomass is estimated to be below the threshold level, then fishing mortality reductions, as output by the HCR, will occur.

1: 12/02: Data Confidentiality, policy and procedures

2: 15/01: On the recording of catch and effort data by fishing vessels in the IOTC Area of competence

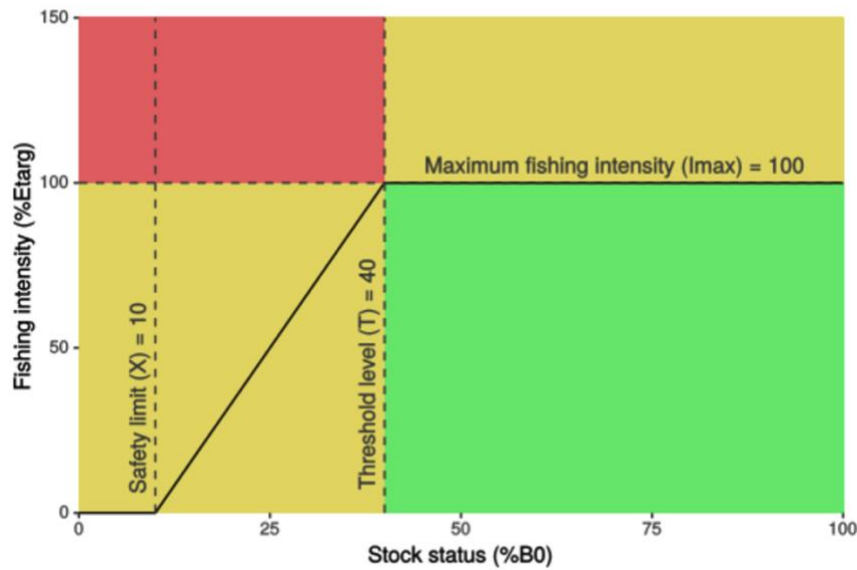
3: 15/02: Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non- Contracting Parties (CPCs)

4: 15/10: On Target and Limit Reference Points and a decision framework

5: The symbol B is used to refer to spawning biomass, the total mass of mature fish, i.e. B_0 , B_{lim} , B_{targ} and B_{curr} all refer to different levels of spawning biomass.

- b) Maximum fishing intensity, the percentage of E_{targ} that will be applied when the stock status is at, or above, the threshold level $I_{\text{max}} = 100\%$. When the stock is at or above the threshold level, then fishing intensity (I) = I_{max}
 - c) Safety level, the percentage of B_0 below which non-subsistence catches are set to zero i.e. the non-subsistence⁶ fishery is closed $B_{\text{safety}} = 10\% B_0$.
 - d) Maximum catch limit (C_{max}), the maximum recommended catch limit = 900,000t. To avoid adverse effects of potentially inaccurate stock assessments, the HCR shall not recommend a catch limit greater than C_{max} . This value is based upon the estimated upper limit of the MSY range in the 2014 Skipjack stock assessment.
 - e) Maximum change in catch limit (D_{max}), the maximum percentage change in the catch limit = 30%. To enhance the stability of management measures the HCR shall not recommend a catch limit that is 30% higher, or 30% lower, than the previous recommended catch limit.
9. The recommended total annual catch limit shall be set as follows:
- a) If the current spawning biomass (B_{curr}) is estimated to be at or above the threshold spawning biomass i.e., $B_{\text{curr}} \geq 0.4B_0$, then the catch limit shall be set at $[I_{\text{max}} \times E_{\text{targ}} \times B_{\text{curr}}]$
 - b) If the current spawning biomass (B_{curr}) is estimated to be below the threshold biomass i.e., $B_{\text{curr}} < 0.4B_0$, but greater than the safety level i.e., $B_{\text{curr}} > 0.1B_0$, then the catch limit shall be set at $[I \times E_{\text{targ}} \times B_{\text{curr}}]$. See Table 1 in Appendix 1 for values of fishing intensity (I) for specific B_{curr}/B_0 .
 - c) If the spawning biomass is estimated to be at, or below, the safety level, i.e. $B_{\text{curr}} \leq 0.1B_0$ then the catch limit shall be at 0 for all fisheries other than subsistence fisheries.
 - d) In the case of (a) or (b), the recommended catch limit shall not exceed the maximum catch limit (C_{max}) and shall not increase by more than 30% or decrease by more than 30% from the previous catch limit.
 - e) In the case of (c) the recommended catch limit shall always be 0 regardless of the previous catch limit.
10. The HCR described in 8(a-e) produces a relationship between stock status (spawning biomass relative to unfished levels) and fishing intensity (exploitation rate relative to target exploitation rate) as shown below (See Table 1 in **Appendix 1** for specific values):

⁶ A subsistence fishery is a fishery where the fish caught are consumed directly by the families of the fishers rather than being bought by middle-(wo)men and sold at the next larger market, per the FAO Guidelines for the routine collection of capture fishery data. FAO Fisheries Technical Paper. No. 382. Rome, FAO. 1999. 113p.



11. The catch limit shall by default, be implemented in accordance with the allocation scheme agreed for Skipjack tuna by the Commission. In the absence of an allocation scheme, the HCR shall be applied as follows:
- If the stock is at or above the Threshold level (i.e., $B_{curr} \geq 0.4B_0$), then the HCR shall establish an overall catch limit.
 - If the stock falls below the Threshold level (i.e., $B_{curr} < 0.4B_0$), the fishing mortality reductions shall be implemented proportionally by CPCs for catches over 1 percent of the catch limit established by the HCR with due consideration to the aspirations and special requirements of Developing Coastal States and Small Island Developing States.
 - This paragraph shall not pre-empt or prejudice future allocation negotiations.

Review and exceptional circumstances

- The HCR, including the control parameters, will be reviewed through further Management Strategy Evaluation (MSE), but no later than 2021 (i.e. five years from its implementation). Subject to the result of that review the current HCR may be refined or replaced with an alternative HCR.
- In the case that the estimated spawning biomass falls below the limit reference point, the HCR will be reviewed, and consideration given to replacing it with an alternative HCR specifically designed to meet a rebuilding plan as advised by the Commission.
- The recommended total annual catch produced by the HCR will be applied continuously as set forth in paragraph 11 above, except in case of exceptional circumstances, such as caused by severe environmental perturbations. In such circumstances, the Scientific Committee shall advise on appropriate measures.

Scientific Advice

- The IOTC Scientific Committee shall:
 - Include the LRP and TRP as part of any analysis when undertaking all future assessments of the status of the IOTC Skipjack tuna stock.
 - Undertake and report to the Commission a model-based Skipjack tuna stock assessment every three (3) years, commencing with the next stock assessment in 2017.

- c) Undertake a programme of work to further refine Management Strategy Evaluation (MSE) for the IOTC Skipjack tuna fishery as required in paragraph 12 including, but not limited to,
- i. Refinement of operating model(s)/ used,
 - ii. Alternative management procedures,
 - iii. Refining performance statistics.

Final Clause

16. The Commission shall review this measure at its annual session in 2019, or before if there is reason and/or evidence to suggest that the Skipjack tuna stock is at risk of breaching the LRP.

Appendix 1

Table 1. Values of fishing intensity for alternative levels of estimated stock status (B_{curr}/B_0) produced by the HCR

Stock status (B_{curr}/B_0)	Fishing Intensity (I)		Stock status (B_{curr}/B_0)	Fishing Intensity (I)
At or above 0.40	100%		0.24	46.7%
0.39	96.7%		0.23	43.3%
0.38	93.3%		0.22	40.0%
0.37	90.0%		0.21	36.7%
0.36	86.7%		0.20	33.3%
0.35	83.3%		0.19	30.0%
0.34	80.0%		0.18	26.7%
0.33	76.7%		0.17	23.3%
0.32	73.3%		0.16	20.0%
0.31	70.0%		0.15	16.7%
0.30	66.7%		0.14	13.3%
0.29	63.3%		0.13	10.0%
0.28	60.0%		0.12	6.7%
0.27	56.7%		0.11	3.3%
0.26	53.3%		0.10 or below	0%
0.25	50.0%			

RESOLUTION 16/03

ON THE SECOND PERFORMANCE REVIEW FOLLOW-UP

Keywords: Performance review; IOTC Agreement

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the course of action agreed at the meeting of the five Tuna Regional Fisheries Management Organisations (RFMOs) held in Kobe in January 2007, and in particular the commitment to undertake Performance Reviews of each Tuna RFMOs in order to strengthen the effectiveness of the Organisations;

TAKING NOTE of the decision taken by the IOTC at its 18th Session in June 2014 to undertake the 2nd IOTC Performance Review;

CONSIDERING the report of the 2nd IOTC Performance Review Panel (PRIOTC02) as analysed by the Commission at its 20th Session held in La Reunion (France) in May 2016;

RECOGNISING that a number of the recommendations arising from the PRIOTC02 report can be progressed by individual Contracting Parties, including through proposing draft Resolutions for consideration by the Commission, while other initiatives may benefit from consideration by relevant committees of the Commission;

FURTHER RECOGNISING that the PRIOTC02 recommended that the Agreement needs to be amended or replaced in order to incorporate modern fisheries management principles, such as the precautionary approach, ecosystem based approaches, inclusions of highly-migratory species caught in IOTC fisheries, protection of marine biodiversity, reducing the harmful impacts of fishing on marine environment and to allow the full participation of all fishing players.

NOTING that the weaknesses and gaps identified by PRIOTC02 are, or have a potential to be, major impediments to the effective and efficient functioning of the Commission and its ability to adopt and implement measures aimed at long-term conservation and sustainable exploitation of stocks, according to model fisheries management instruments and more fundamentally, these deficiencies are likely to prevent the Commission from achieving its basic objectives.

CONSIDERING the 24 recommendations put forth by the 2nd Performance Review Panel report to the 20th Session of the Commission in 2016;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The Commission endorses the recommendations of the Panel Report (**Annex I**).
2. To improve the functioning of the IOTC and to address its deficiencies, including the possible need to amend the IOTC Agreement, an ad-hoc Technical Committee (Terms of Reference in **Annex II**) will be set up with the objective of preparing a Program of Work with concrete actions on the recommendations, including priorities, proposed timelines, budgets, and a possible text of a new agreement. The Technical Committee shall complete its work by October 2019 in accordance with its Terms of Reference.
3. The draft Work Plan and the recommendations of the Technical Committee will be reviewed by the Scientific Committee, Compliance Committee and the Standing Committee on Administration and Finance. After this review, the Commission will consider the Work Plan.
4. A Performance Review of the IOTC shall be carried out every five (5) years in line with the recommendations of the Kobe process.
5. This Resolution supersedes Resolution 09/01 *On the performance review follow-up*.

ANNEX I

RECOMMENDATIONS ARISING FROM THE 2ND IOTC PERFORMANCE REVIEW PANEL (paragraph numbers refer to the Report of the 2nd IOTC Performance Review: IOTC-2016-PRIOTC02-R)

REFERENCE #	RECOMMENDATION	RESPONSIBILITY	UPDATE/STATUS	TIMELINE	PRIORITY
PRIOTC02.01 (para. 81)	<p>Analysis of the IOTC Agreement against other international instruments</p> <p>NOTING para 80, the PRIOTC02 RECOMMENDED that the Commission establish an ad-hoc Working Party on the Modernisation of the IOTC Agreement, based on the following scope:</p> <p>a) Develop proposed language for the IOTC Agreement that takes into account modern principles of fisheries management;</p>	Commission & ad-hoc Working Party	Pending	TBD	TBD
	<p>b) Develop a multi-year Program of Work that outlines the specific priority issues to be discussed using the legal analysis contained in Appendix III of this report to inform the working party deliberations;</p>	Commission & ad-hoc Working Party	Pending	TBD	TBD
	<p>c) Proposals to enable the participation of all fishing players with direct fishing interests in IOTC;</p>	Commission & ad-hoc Working Party	Pending	TBD	TBD
	<p>d) That all CPCs should participate in the Working Party and that funds be provided to support the participation of developing coastal States in the meetings;</p>	Commission & ad-hoc Working Party	Pending	TBD	TBD
	<p>e) That the working group meet at least annually and to the extent possible progress its work inter-sessionally using electronic means.</p>	Commission & ad-hoc Working Party	Pending	TBD	TBD



<p>PRIOTC02.02 (para. 86)</p>	<p>Status of living marine resources The PRIOTC02 RECOMMENDED that:</p> <p>a) while continuing to work on improving data collection and reporting, the Scientific Committee should continue to utilise qualitative stock assessment methodologies for species where these is limited data available, including ecological risk based approaches, and support the development and refinement of data poor fisheries stock assessment techniques to support the determination of stock status.</p>	<p><i>Scientific Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) confidentiality provisions and issues of accessibility to data by the scientists involved needs to be clearly delineated, and/or amended if necessary, so that stock assessment analysis can be replicated.</p>	<p><i>Scientific Committee & Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>c) chairpersons and Vice-Chairpersons of the Scientific Committee and respective Working Parties, in conjunction with the IOTC Secretariat, develop guiding principles for the provision of papers to ensure that they are directly related to the Program of Work of the respective Working Party and/or Scientific Committee, as endorsed by the Commission, while still encouraging for new and emerging issues to be presented.</p>	<p><i>Scientific Committee & Working Party Chairs and Vice-Chairs</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>d) ongoing peer review and input by external scientific experts should be incorporated as standard best practice for Working Parties and included in the Commission's regular budget.</p>	<p><i>Scientific Committee & Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.03 (para. 96)</p>	<p>Data collection and reporting The PRIOTC02 RECOMMENDED that:</p> <p>a) the Commission make further investments in data collection and targeted capacity building, which is necessary for further improvement in the provision and quality of data in support of the Commission’s objectives, as well as to identify the sources of the uncertainty in data and work towards reducing that uncertainty.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) while there are budgetary implications, the IOTC Secretariat staffing dedicated to data collection and data capacity building activities should be increased from 3 to 5 full-time data staff.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>c) the IOTC Secretariat should facilitate discussions with coastal State non-CPCs and other non-CPCs fishing within the IOTC area of competence to formalise long-term strategies for data submission to the IOTC Secretariat, including all relevant historical data sets.</p>	<p><i>IOTC Secretariat</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>d) steps to gain access to fine-scale data to be used in joint analysis, with sufficient protection of confidentiality, should be taken.</p>	<p><i>IOTC Secretariat</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>e) where budgets and other resources permit, to encourage data preparatory meetings preceding stock assessment review meetings (Working Parties).</p>	<p><i>Scientific Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>f) innovative and/or alternative means of data collection and reporting should be explored and, as appropriate, implemented, including a move towards electronic data collection and reporting for all fleets.</p>	<p><i>Scientific Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.04 (para. 102)</p>	<p><i>Compliance with data collection and reporting requirements</i></p> <p>The Commission, through its Compliance Committee, needs to strengthen its compliance monitoring in relation to the timeliness and accuracy of data submissions. To that end, the PRIOTC02 RECOMMENDED that:</p> <p>a) the Commission review its compliance monitoring program conducted by the Compliance Committee, including identification of priority obligations (e.g. timely and accurate data reporting, catch and effort limits, accuracy of the supplied registered fishing vessel information, etc.).</p>	<p><i>Commission and Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) the compliance monitoring program review all priority obligations and undertake the compliance review by obligation and by CPCs and that the Commission publish a report of each CPCs compliance by obligation and CPC. The reports of all Compliance Missions should be appended to the compliance report of that relevant CPC and where the CPC has identified an action plan, that they not be assessed for that obligation.</p>	<p><i>Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



	<p>c) the Commission develop a scheme of responses (in accordance with the IOTC Rules of Procedure (2014) Appendix V, para. 3b (iv)) to priority non-compliance areas, including the preparation of CPC Implementation Action Plans that outline how the CPC will, over time, implement its obligations and alternative responses to serious violations of IOTC CMMs taking into account the FAOs Voluntary Guidelines for Flag State Performance. Reforms to the compliance monitoring program should include the ability of developing CPCs to identify (through the preparation of an Implementation Action Plan) and seek assistance for obligations that they are currently non-compliant with, including for example requesting capacity assistance, capacity building, resources, etc., to enable, overtime, implement its obligations.</p>	<p><i>Commission and Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>d) to facilitate thorough reviews of compliance, the Commission should invest in the development and implementation of an integrated electronic reporting program. This should include automatic integration of data from CPCs into the IOTC Secretariat's databases and automatic cross-referencing obligations and reports for the various obligations, in particular related to the provision of scientific data.</p>	<p><i>Commission and Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.05 (para. 104)</p>	<p>Capacity building (Data Collection) The PRIOTC02 RECOMMENDED that:</p> <p>a) the Commission expand its current data support and data compliance missions and that the IOTC Secretariat should be granted increased autonomy to seek and attract external donor funds to support the work approved by the Commission, including supporting actions and/or capacity building initiatives from Compliance Missions that are applicable to more than two CPCs.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) the IOTC should continue the workshop series aimed at Connecting the IOTC Science and Management processes. The aims of the workshop series should be to: 1) improve the level of comprehension among IOTC CPCs on how the scientific process informs the management process for managing of IOTC species and ecosystem-based management; 2) increase the awareness of IOTC Contracting Parties to their obligations, as stipulated in the Commissions’ Conservation and Management Measures which are based on rigorous scientific advice; 3) improve the decision making process within the IOTC; and 4) to provide direct assistance in the drafting of proposals for Conservation and Management Measures.</p>	<p><i>Commission & Secretariat</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.06 (para. 106)</p>	<p>Non-target species The PRIOTC02 RECOMMENDED that the Commission should continue to improve upon the requirements of data collection and reporting mechanisms of non-IOTC species that interact with IOTC fisheries.</p>	<p><i>Commission and Scientific Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.07 (para. 112)</p>	<p>Quality and provision of scientific advice The PRIOTC02 RECOMMENDED that:</p> <p>a) the Scientific Committee should continue the good work undertaken since the PRIOTC01 and strive to make further improvements in the way it communicates information about stock status and future prospects for the stocks to the Commission.</p>	<p><i>Scientific Committee & Working Parties</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) an independent peer review process (and budgeting mechanism) for stock assessments should be implemented if IOTC science is to be considered to be in line with best practice and to maintain a high standard of quality assurance.</p>	<p><i>Scientific Committee & Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>c) the Scientific Committee, through its Working Party on Ecosystems and Bycatch should pursue the application of ecosystem modelling frameworks.</p>	<p><i>Scientific Committee & Working Party on Ecosystems and Bycatch</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>d) continue to develop and adopt robust target and limit reference points, and species or fishery specific harvest control rules through management strategy evaluations, noting that this process has commenced for several species and is specified in IOTC Resolution 15/10 on target and limit reference points and a decision framework. The mandated Resolution 14/03 [superseded by Resolution 16/09] on enhancing the dialogue between fisheries scientists and managers, will benefit from having communication between the Scientific Committee and the Commission more formally structured, facilitated dialogue to enhance understanding and inform decision making.</p>	<p><i>Scientific Committee & Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



	e) the Commission and its subsidiary bodies continue to ensure that meeting schedules and activities are rationalised so that the already heavy workload of those involved, and budgeting constraints, are taken into account.	<i>Commission & Scientific Committee</i>	Pending	TBD	TBD
	f) the Commission fully implements Resolution 12/01 <i>On the implementation of the precautionary approach</i> , so as to apply the precautionary approach, in accordance with relevant internationally agreed standards, in particular with the guidelines set forth in the UNFSA, and to ensure the sustainable utilisation of fisheries resources as set forth in Article V of the IOTC Agreement, including ensuring that a lack of information or increased uncertainty in datasets/stock assessment, is not used as a justification to delay taking management actions to ensure the sustainability of IOTC species and those impacted by IOTC fisheries.	<i>Commission</i>	Pending	TBD	TBD
	g) while there are budgetary implications, the IOTC Secretariat staffing dedicated to scientific analysis should be increased from 2 to 4 full-time science staff.	<i>Commission</i>	Pending	TBD	TBD
PRIOTC02.08 (para. 123)	<i>Adoption of Conservation and Management Measures</i> The PRIOTC02 RECOMMENDED that: a) the Commission acknowledge the inherent difficulty in managing small scale and data poor fisheries and continue efforts to adopt adequate fisheries management arrangements and to assist developing coastal States to overcome constraints to implement the CMMs.	<i>Commission</i>	Pending	TBD	TBD



	b) as the IOTC has faced the management of the main targeted stock under its purview only through a regulation of the fishing effort; other approaches should be explored, such as those envisioned in Resolutions 05/01 [superseded by Resolution 23/04] and 14/02, including catch limits, total allowable catch (TAC) or total allowable effort (TAE).	<i>Commission & Scientific Committee</i>	Pending	TBD	TBD
	c) the Science-Management Dialogue is strengthened to improve understanding of modern approaches to fisheries management, including the implementation of Harvest Strategies through the use of Management Strategy Evaluation. The Commission adopt a formal process of developing and implementing Harvest Strategies within a prescribed timeframe.	<i>Commission & Scientific Committee</i>	Pending	TBD	TBD
PRIOTC02.09 (para. 129)	<i>Fishing capacity management</i> The PRIOTC02 RECOMMENDED that: i. the IOTC should establish a stronger policy on fishing capacity to prevent or eliminate all excess fishing capacity, including options to freeze capacity levels as an interim measure, while alternative management measures are considered. As current capacity limits are generic and apply across all fleets and their ability to control catch of particular species is limited, therefore alternative management measures should be considered which may include spatial-temporal area closures, quota allocation, etc.	<i>Commission</i>	Pending	TBD	TBD
	ii. the Commission undertake a formal process to develop transfer mechanisms to developing coastal States, and in particular the least developed among them, with a view to realising their fleet development aspirations within sustainable levels.	<i>Commission</i>	Pending	TBD	TBD



<p>PRIOTC02.10 (para. 133)</p>	<p>Compatibility of management measures</p> <p>The PRIOTC02 RECOMMENDED that if needed, CPCs request assistance from other CPCs or PRIOTC02.01 (para. 81) the IOTC Secretariat to assist in the assessment of the legal needs to effectively implement IOTC CMMs, noting that this process has already commenced with a number of IOTC Contracting Parties.</p>	<p><i>Secretariat & CPCs</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.11 (para. 136)</p>	<p>Fishing allocations and opportunities</p> <p>The PRIOTC02 RECOMMENDED that the IOTC develop allocation criteria or any other relevant measures as a matter of urgency through the established Technical Committee on Allocation Criteria (TCAC) process, and that it include consideration of how catches by current non-CPCs would be accounted for. This process should not delay the development and adoption of other management measures, based on the advice of the Scientific Committee.</p>	<p><i>Commission & Technical Committee on Allocation Criteria</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.12 (para. 139)</p>	<p>Flag State duties</p> <p>The PRIOTC02 RECOMMENDED that any amendment to or replacement of the IOTC Agreement should include specific provisions on Member's duties as flag States, drawing on the relevant provisions of the UNFSA and take due note of the FAO Guidelines on flag State performance.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.13 (para. 144)</p>	<p>Port State measures The PRIOTC02 RECOMMENDED that:</p> <p>a) since port State measures are critical for the control of fishing in the IOTC area and beyond, CPCs should take action to ratify the FAO Agreement on Port State Measures, and the Commission explore possible ways of including ports situated outside the IOTC area known to be receiving IOTC catches in applying port State measures established by the IOTC.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) the Commission, through its port State measures training, support the implementation, including support from FAO and other donors, of the requirements of the FAO PSMA and the IOTC Resolution 10/11 [superseded by Resolution 16/11] <i>On port state measures to prevent, deter and eliminate illegal, unreported and unregulated fishing.</i></p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.14 (para. 149)</p>	<p>Monitoring, control and surveillance (MCS) The PRIOTC02 RECOMMENDED that:</p> <p>1. the IOTC should continue to develop a comprehensive monitoring, control and surveillance (MCS) system through the implementation of the measures already in force, and through the adoption of new measures and tools such as a possible catch documentation scheme, noting the process currently being undertaken within the FAO.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



	<p>2. as a matter of priority review the IOTC monitoring, control and surveillance (MCS) measures, systems and processes, with the objective of providing advice and guidance on improving the integration of the different tools, identification of gaps and recommendations on how to move forward, taking into consideration the experiences of other RFMOs, and that the review should be used as a basis for strengthening MCS for the purpose of improving the ability of the Commission to deter non-compliance and IUU fishing.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.15 (para. 153)</p>	<p><i>Follow-up on infringements</i> The PRIOTC02 RECOMMENDED that:</p> <p>a) the IOTC should establish a scheme of responses to non-compliance in relation to CPCs obligations, and task the Compliance Committee to further develop a structured approach for cases of infringement.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) further develop an online reporting tool to facilitate reporting by CPCs and to support the IOTC Secretariat through the automation of identification of non-compliance.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>c) reasons for the non-compliance should be identified, including whether it is related to the measure itself, a need for capacity assistance or whether it is wilful or repeated non-compliance, and that the Compliance Committee provide technical advice on obligations where there are high level of CPCs non-compliance.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.16 (para. 159)</p>	<p>Cooperative mechanisms to detect and deter non-compliance</p> <p>The PRIOTC02 RECOMMENDED that the Commission considers strengthening the intersessional decision making processes in situations where CPCs have not transmitted a response such that a decision can be taken for effective operational cooperative mechanisms and that the Commission encourages the CPCs to be more involved in decision making and for the Commission to collaborate to the greatest extent possible with other RFMOs.</p>	<p>Commission</p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.17 (para. 163)</p>	<p>Market-related measures</p> <p>The PRIOTC02 RECOMMENDED that:</p> <ol style="list-style-type: none"> 1. the Commission considers strengthening the market related measure (Resolution 10/10 Concerning market related measures) to make it more effective. 	<p>Commission</p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<ol style="list-style-type: none"> 2. the Commission considers to invite key non-CPCs market States that are the main recipient of IOTC catches as observers to its meetings with the aim of entering into cooperative arrangements. 	<p>Commission</p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.18 (para. 169)</p>	<p>Fishing capacity</p> <p>The PRIOTC02 RECOMMENDED that the Commission consider non-compliance with fishing capacity related measures as a priority in the scheme of responses to non-compliance, in order to ensure the sustainable exploitation of the relevant IOTC species.</p>	<p>Commission & Compliance Committee</p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.19 (para. 175)</p>	<p>Decision-making The PRIOTC02 RECOMMENDED that intersessional processes be utilised (e.g. via formal or informal subsidiary bodies, or through facilitated electronic working groups) such that proposals brought to the Commission have been subject to debate and consideration by all CPCs.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.20 (para. 198)</p>	<p>Relationship to Non-Cooperating Non-Members (Non-CPCs) The PRIOTC02 RECOMMENDED that the IOTC continue to strengthen its actions towards coastal State non-CPCs to have all such coastal States included under its remit, and that Contracting Parties take diplomatic missions to coastal State non-CPCs with active vessels in the IOTC area of competence.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.21 (para. 204)</p>	<p>Cooperation with other RFMOs The PRIOTC02 RECOMMENDED that: a) the IOTC should further develop mutual recognition and possible exploration of cross-listings of IUU lists with other RFMOs to combat IUU activities globally.</p>	<p><i>Commission & Compliance Committee</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) The IOTC should develop cooperative mechanisms, such as MoUs, to work in a coordinated manner on issues of common interest, in particular non-target species and an ecosystem approach with other RFMOs especially with SIOFA.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.22 (para. 211)</p>	<p><i>Special requirements of developing States</i> The PRIOTC02 RECOMMENDED that:</p> <p>a) the continuation and optimisation of the IOTC Meeting Participation Fund indefinitely as part of the IOTC Regular Budget, and that the MPF is used to support participation of all eligible Contracting Parties in order to create a more balanced attendance to both science and non-science meetings of the Commission.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>b) the IOTC Secretariat in partnership with development agencies and organisations, should develop a five year regional fisheries capacity development program to ensure coordinated capacity building activities across the region.</p>	<p><i>Secretariat & Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
<p>PRIOTC02.23 (para. 228)</p>	<p><i>Availability of resources for IOTC activities & Efficiency and cost-effectiveness</i> The PRIOTC02 RECOMMENDED that:</p> <p>a) the IOTC continue to strengthen its actions towards non-paying Contracting Parties including consideration of diplomatic missions to non-paying Contracting Parties to encourage payment and to explore other mechanisms to recover the outstanding contributions (debt), and collaborate with FAO to identify the difficulties faced in recovering outstanding contributions.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



	<p>b) consistent with best practice governance procedures, that the Commission:</p> <ol style="list-style-type: none"> 1. Amend or replace the IOTC Financial Regulations (1999) as a matter of urgency in order to increase Contracting Parties’ as well as the Secretariat’s control of all the budget elements, including staff costs of the budget, consistent with best practice governance procedures. 2. A system of cost-recovery should be considered as a possible funding mechanism for new activities and/or ongoing activities. 3. An annual external financial audit of the organisation be implemented as soon as possible, and include a focus on whether IOTC is efficiently and effectively managing its human and financial resources, including those of the IOTC Secretariat. 4. Develop guidelines for the acceptance of extra-budgetary funds to undertake elements of the Commission’s Program of Work, or those of its subsidiary bodies. 5. Explore opportunities to improve efficiency concerning financial contributions, including extra-budgetary funds in support of the Commission’s Program of Work, including the possibility of minimising project support costs. 6. Develop and implement staff development, performance and accountability evaluations and procedures, for inclusion within the IOTC Rules of Procedure (2014). 	<p><i>Commission & Standing Committee on Administration and Finance</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
	<p>c) the Commission, as a matter of urgency, decide whether remaining inside the FAO structure (as an Article XIV body) provides the most suitable means to effectively deliver upon the IOTC Objectives.</p>		<p>Pending</p>	<p>TBD</p>	<p>TBD</p>



<p>PRIOTC02.24 (para. 233)</p>	<p>FAO The PRIOTC02 RECOMMENDED that the IOTC would be more appropriate as an independent entity. As such, as a matter of the highest priority, the Commission should decide whether the IOTC should remain within the FAO framework or become a separate legal entity, and as necessary, begin consultations with the FAO on this matter.</p>	<p><i>Commission</i></p>	<p>Pending</p>	<p>TBD</p>	<p>TBD</p>
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ANNEX II
TERMS OF REFERENCE - TECHNICAL COMMITTEE ON PERFORMANCE REVIEW

A Technical Committee is established with the following Terms of Reference:

1. To prepare a Work Plan with concrete actions on the recommendations of the Performance Review Panel Report, including priorities, proposed timelines, budgets.
2. To develop a new text of the IOTC Agreement with respect to the recommendations of the 2PRP and based on the following scope:
 - a) Develop proposed language for the IOTC Agreement that takes into account modern principles of fisheries management;
 - b) Develop a multi-year Program of Work that outlines the specific priority issues to be discussed using the legal analysis contained in this report to inform the Technical Committee deliberations;
 - c) Make proposals to enable the participation of all fishing players in IOTC;
 - d) That all CPCs, wishing so, should participate in this Technical Committee and that funds be provided to support the participation of developing coastal States in the meetings;
 - e) That the Technical Committee meets at least annually and to the extent possible progress on its work intersessionally using electronic means.
3. To make a recommendation to the Commission to decide whether the IOTC should remain within the FAO framework or become a separate legal entity, and as necessary as a matter of the highest priority, begin consultations with the FAO. If necessary and appropriate in order to adopt an Agreement as an independent legal identity, the Technical Committee can propose to terminate the IOTC Agreement in accordance to the Article XXII of the of the current Agreement.
4. To report and make recommendations, as appropriate, to the Commission on the progress regarding Resolution 09/01 **[superseded by [Resolution 16/03](#)]** on the *Performance Review follow-up*.
5. In developing proposed amendments to the current Agreement and producing draft recommendations, to take into account the input of IOTC Contracting Parties, Cooperating Non-Contracting Parties and other IOTC Fishing players.
6. The Technical Committee will carry out its work in accordance with the following Program of Work:

2016–17	2017–18	2018–19
Meet intersessionally to discuss proposed amendments to the Agreement, including draft text, and to produce a recommendation to the Commission to decide whether the IOTC should remain within the FAO framework or become a separate legal entity at the 2018 Annual Meeting.	Meet intersessionally to continue discussion of proposed amendments to the Agreement, and develop consolidated proposed Agreement texts that will serve as a negotiating text for future meeting(s).	Meet intersessionally to finalise, if possible, proposed amendments to the Agreement. Present the final proposed Agreement text for adoption.

RESOLUTION 16/04

ON THE IMPLEMENTATION OF A PILOT PROJECT IN VIEW OF PROMOTING THE REGIONAL OBSERVER SCHEME OF IOTC

Keywords: Regional Observer Scheme;

The Indian Ocean Tuna Commission (IOTC),

TAKING INTO ACCOUNT the need to increase the scientific information, in particular to provide the IOTC Scientific Committee working material in order to improve the management of the tuna and tuna-like species fished in the Indian Ocean;

REITERATING the responsibilities of Flag States to ensure that their vessels conduct their fishing activities in a responsible manner, fully respecting IOTC Conservation and Management Measures;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to fully comply with the IOTC Conservation and Management Measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's Conservation and Management Measures, and the need to encourage Non-CPCs to abide by these measures;

UNDERLINING that the adoption of this measure is intended to promote the implementation of the Resolution 11/04 **[superseded by [Resolution 22/04](#)]** on a Regional Observer Scheme;

CONSIDERING the deliberations of the 18th Session of the IOTC Scientific Committee held in Bali, Indonesia from 23-27 November 2015, notably that CPCs should comply with IOTC data requirements as requested per Resolutions [15/01](#) and [15/02](#), respectively on the recording of catch and effort data by fishing vessels in the IOTC area of competence and on mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs, given the gaps in available information in the IOTC database and the importance of basic fishery data in order to assess the status of stocks and for the provision of sound management advice.

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. Create a pilot project aiming to enhance the implementation of the Resolution 11/04 **[superseded by [Resolution 22/04](#)]** on a Regional Observer Scheme and to raise the level of compliance to the implementation of Resolutions [15/01](#) and [15/02](#), respectively on the recording of catch and effort data by fishing vessels in the IOTC area of competence and on mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs).
2. This pilot project will be funded through IOTC budget and/or from voluntary contributions. The pilot project will be prepared taking into account the following elements:
 - a) Identification and selection of voluntary participatory Contracting Parties or Cooperating Non-Contracting Parties (CPCs). Participatory CPCs should indicate their vessels that will participate in the project.
 - b) Terms of Reference (ToR) and selection of scientific observers, according to provisions of the Resolutions 11/04 **[superseded by [Resolution 22/04](#)]**, [15/01](#) and [15/02](#).
 - c) Definition of an Action Plan for the observers work, including indicatively, a working calendar and an area of activity.
 - d) Mid-term review and a final term review, the latter should include recommendation on how to expand the experiences and results of the pilot project to all IOTC area of competence.
 - e) Cooperation coordination mechanism between CPCs participating in the project.

- f) Complementarity with the Regional Observer Scheme actions already in place.
3. The IOTC Scientific Committee will draft guidelines regarding the ToR and work of observers, and an indicative budget for approval by the Commission in 2017. This project will focus on developing states, with priority given to promote the implementation of the ROS to small island developing states (SIDS) and least developed countries (LDC).
 4. Contracting Parties will provide their comments and suggestions within one month after the IOTC Executive Secretary transmission of the draft project, following the Scientific Committee.
 5. The revised draft proposal, including a detailed budget, will be submitted to the Compliance Committee and to the Standing Committee on Administration and Finance for review, and submitted for consideration and approval at the annual meeting of the Commission in 2017.
 6. The pilot project will explore the possibilities offered by electronic observation and observation in port.
 7. The Scientific Committee will evaluate whether electronic observation or observation in port can be used to collect data matching IOTC standards. Scientific Committee will also propose minimum standards for the implementation of Electronic observation systems and how they can be used to increase levels of observer coverage for Indian Ocean fisheries.
 8. The pilot project will not preclude any Regional Observer Scheme's actions already implemented by Contracting Parties or Cooperating non-Contracting Parties and respective fleets.

Annex I

Minimal requirements for observers

Scientific observers

1. Without prejudice to whatever specific training and qualifications are recommended by the Scientific Committee, the designated observers shall have the following qualifications to accomplish their tasks:
 - a) a satisfactory knowledge of the IOTC Conservation and Management Measures;
 - b) the ability to observe and record information accurately;
 - c) a satisfactory knowledge of the language of the flag of the vessel observed;
 - d) sufficient experience to identify species and fishing gear;
 - e) proven training in security and survival at sea.
2. Observers shall:
 - a) record and report upon the fishing activities carried out;
 - b) observe and estimate catches and check consistency with entries made in the logbook;
 - c) note the position of the vessel when engaged in catching activity;
 - d) carry out scientific work such as collecting of IOTC mandatory statistical information and fulfilment of logbooks;
 - e) report the results of these duties on the fishing vessel in the observers report to the flag state fishing authority,
 - f) submit the observer report to Flag State authorities within 30 days from the end of the period of observation;
 - g) treat as confidential all information with respect to the fishing and transshipment operations of the fishing vessels and accept this requirement in writing as a condition of appointment as an observer;
 - h) 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;
 - i) 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.

Obligations of the Master

3. The Master shall allow observers to:
 - a) visit the fishing vessel, if weather conditions permit, and to have access to vessel staff and to the gear and equipment but not interfering with the equipment on-board;
 - b) have access to the equipment listed below, if present on the vessels to which they are assigned, in order to facilitate the carrying out of their duties. This shall be done on a request basis. The equipment concerns
 - i) satellite navigation equipment; (consultation only)
 - ii) radar display viewing screens when in use; (consultation only)

- iii) electronic means of communication;
- c) Observers shall be provided with accommodation, 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;

Obligations of the Flag State

- 4. 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.
- 5. No later than two months upon completion of a fishing trip, observer reports will be sent to the IOTC secretariat, who shall manage and keep record of the mentioned observer's reports in a manner consistent with IOTC confidentiality requirements, and will submit copies of the observer reports to the Scientific Committee.
- 6. Data collected in any Coastal State EEZ will also be provided to the Coastal State authorities within the same delays and conditions of the previous paragraph.

Mutual recognition of observers

- 7. The observers selected to participate in this pilot project will be recognised by all CPCs participating in the project.

RESOLUTION 16/05 ON VESSELS WITHOUT NATIONALITY

Keywords: Vessels without nationality; stateless vessels; IUU fishing; enforcement; transshipment; port access.

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING that vessels without nationality operate without governance and oversight;

CONCERNED that fishing in the IOTC area of competence by vessels without nationality undermines the objective of the IOTC Agreement and the work of the Commission;

NOTING Articles 92 and 94 of the United Nations Convention on the Law of the Sea (UNCLOS) relating to the status of ships and the duties of flag States;

RECALLING that the FAO Council has adopted an International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated fishing (IUU fishing) and has recommended that States adopt measures consistent with international law in relation to fishing vessels without nationality involved in IUU fishing on the high seas;

REAFFIRMING IOTC Resolution 11/03 [superseded by Resolution 17/03 then by 18/03] paragraph 1(i), which states that fishing vessels without nationality harvesting tuna or tuna-like species in the IOTC area of competence are presumed to have carried out IUU fishing;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

1. A vessel without nationality is a vessel that, under international law, is not entitled to fly the flag of any State or, as referred to in Article 92 of UNCLOS, sails under the flag of two or more States, using them according to convenience.
2. Vessels without nationality that are fishing in the IOTC area of competence undermine the IOTC Agreement and the Conservation and Management Measures adopted by the Commission and are engaged in IUU fishing.
3. Contracting Parties (Members) and Cooperating Non-Contracting Parties (CNCs) are encouraged to take effective action in accordance with international law, including, where appropriate, enforcement action, against vessels without nationality that are engaging, or have engaged, in fishing or fishing related activities in the IOTC area of competence, and to prohibit the landing and transshipment of fish and fish products, and access to port services, by such vessels, except where such access is essential to the safety or health of the crew or the safety of the vessel.
4. Members and CNCs are encouraged to adopt necessary measures, including, where relevant, domestic legislation, to allow them to take the effective action referred to in paragraph 3 to prevent and deter vessels without nationality from engaging in fishing or fishing related activities in the IOTC area of competence.
5. Members and CNCs are encouraged to share information about vessels suspected to be without nationality to assist in clarifying the status of such vessels, and about the activities of vessels without nationality to inform decisions about action to prevent and deter such vessels from engaging in fishing or fishing related activities in the IOTC area of competence. Any sightings of fishing vessels that are suspected of, or confirmed as being, without nationality that may be fishing in the high seas of the IOTC area of competence shall be reported to the IOTC Secretariat as soon as possible by the appropriate authorities of the Member or CNC whose vessel or aircraft made the sighting. The IOTC Secretariat will circulate such information to all Members and CNCs as soon as practicable, and will provide a report to the Annual Session of the Compliance Committee of all such information provided.
6. Members and CNCs are encouraged to cooperate with all flag States to strengthen their legal, operational and institutional capacity to take action against their flagged vessels that have engaged in fishing or fishing related activities in the IOTC area of competence, including the imposition of adequate sanctions, as an alternative to de-flagging such vessels, thereby rendering such vessels without nationality.

RESOLUTION 16/07

ON THE USE OF ARTIFICIAL LIGHTS TO ATTRACT FISH

Keywords: DFADs; fishing vessels; supply, support and auxiliary vessel; lights;

The Indian Ocean Tuna Commission (IOTC),

AWARE that the Commission is committed to adopt Conservation and Management Measures to reduce juvenile Bigeye tuna and Yellowfin tuna mortalities from fishing effort on Aggregating Devices;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the mentioned Agreement and encouraging sustainable development of fisheries based on such stocks and minimising the level of bycatch;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

RECALLING that The Rome Consensus on World Fisheries adopted by the FAO Ministerial Conference on Fisheries, Rome, 14–15 March 1995, provides that “States should [...] reduce bycatches, fish discards...”;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. Fishing vessels and other vessels including support, supply and auxiliary vessels flying the flag of an IOTC Contracting Party or Cooperating Non-Contracting Party (collectively CPCs) are prohibited from using, installing or operating surface or submerged artificial lights for the purpose of aggregating tuna and tuna-like species beyond territorial waters. The use of lights on DFADs is also already prohibited.
2. CPCs shall prohibit their flagged vessels from intentionally conducting fishing activities around or near any vessel or DFAD equipped with artificial lights for the purpose of attracting tuna and tuna-like species under the mandate of the IOTC and in the IOTC area of competence.
3. DFADs equipped with artificial lights, which are encountered by fishing vessels operating in the IOTC area of competence, should as far as possible be removed and brought back to port.
4. Notwithstanding paragraph 1, CPCs whose fishing vessels currently use such artificial lights for the purpose of aggregating tuna and tuna-like species may continue to allow such vessels to use such lights until 31st December 2017. The CPC that wishes to apply this provision shall so report to the Secretariat within 120 days after the adoption of this resolution.
5. Navigation lights and lights necessary to ensure safe working conditions are not affected by this resolution.
6. This Resolution supersedes Resolution 15/07 *On the use of artificial lights to attract fish to drifting fish aggregating devices*.

RESOLUTION 16/08

ON THE PROHIBITION OF THE USE OF AIRCRAFTS AND UNMANNED AERIAL VEHICLES AS FISHING AIDS

Keywords: Helicopters, drones, aircraft, unmanned aerial vehicle, fishing, searching, fishing aid, supply vessel, support vessel, fishing vessel.

The Indian Ocean Tuna Commission (IOTC),

RECALLING that Article 5, paragraph c, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of the precautionary approach as a general principle for sound fisheries management;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01 [superseded by [Resolution 16/03](#)], indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach as set forth in the UNFSA;

RECOGNISING the need to ensure the sustainability of fisheries for tunas and tuna-like species for food security, livelihoods, economic development, multispecies interactions and environmental impacts in its decisions;

CONSIDERING the [Resolution 12/01](#) on the implementation of the precautionary approach, in accordance with relevant internationally agreed standards, in particular with the guidelines set forth in the UNFSA, and to ensure the sustainable utilization of fisheries resources as set forth in article V of the IOTC agreement;

RECALLING that the objective of the IOTC Agreement is to ensure, through appropriate management, the conservation and optimum utilisation of stocks covered by the mentioned Agreement and encouraging sustainable development of fisheries based on such stocks;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

GIVEN that “Aircraft” means a contrivance used for navigation of, or flight in the air and specifically includes, but is not limited to, planes, helicopters, and any other device that allows a person to fly or hover above the ground. “Unmanned aerial vehicle” means any device capable of flying in the air which is remotely, automatically or otherwise piloted without an occupant, including but not limited to drones;

RECOGNISING that the use of aircraft and unmanned aerial vehicle as fishing/searching aids significantly contribute to the fishing effort of tuna fishing vessels by increasing their fish detection capacity;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. Contracting Parties and Cooperating Non-Contracting Party (collectively CPCs) shall prohibit their flagged fishing vessels, support and supply vessels from using aircrafts and unmanned aerial vehicles as fishing aids.
2. Notwithstanding paragraph 1, CPCs whose fishing vessels currently use aircrafts and unmanned aerial vehicles as fishing aids may continue to allow such vessels to use them until 31st December 2017. The CPC that wishes to apply this provision shall so report to the Secretariat within 120 days after the adoption of this resolution.
3. Any occurrence of a fishing operation undertaken with the aid of aircraft or any unmanned aerial vehicle in the IOTC area of competence shall be reported to the flag State and the IOTC Executive Secretary, for communication to the Compliance Committee.
4. Aircraft and unmanned aerial vehicles used for scientific and MCS purposes are not subject to the prohibition set out in paragraph 1 of this measure.

RESOLUTION 16/09

ON ESTABLISHING A TECHNICAL COMMITTEE ON MANAGEMENT PROCEDURES

Keywords: Reference Points, Harvest Control Rules, Precautionary Approach, Management Strategy Evaluation.

The Indian Ocean Tuna Commission (IOTC),

HAVING responsibility for the sustainable utilisation of tuna and tuna-like species in the Indian Ocean;

RECOGNISING the need for action to ensure the achievement of IOTC objectives to conserve and manage tuna resources in the IOTC area of competence;

RECALLING Article 6, paragraph 3, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), on the strengthening of existing organisations and arrangements;

RECALLING that the IOTC Scientific Committee has initiated a process leading to a Management Strategy Evaluation process to improve upon the provision of scientific advice on Harvest Control Rules (HCRs);

FURTHER RECALLING that the IOTC has embarked upon a dialogue process as agreed in Resolution 14/03 [superseded by Resolution 16/09] *On enhancing the dialogue between fisheries scientists and managers*, which required that a series of three Science and Management Dialogue Workshops is held between 2014 and 2017;

NOTING the need, expressed by the Scientific Committee, to strengthen the communication on the MSE process between the Scientific Committee and the Commission, in order to facilitate consideration of the elements of the MSE that require endorsement by the Commission ;

RECOGNISING that the Scientific Committee RECOMMENDED that the Commission consider establishing a formal communication channel for the science and management dialogue to enhance decision-making through a dedicated Technical Committee on Management Procedures (SC18.18);

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. A Technical Committee on Management Procedures (TCMP) co-chaired by the Commission Chair (or designee) and the Scientific Committee Chair (or designee) and facilitated, if possible, by an independent expert, is established with the objective of addressing the priorities identified in Resolutions 14/03 [superseded by Resolution 16/09] *On enhancing the dialogue between fisheries scientists and managers*, and 15/10 *on target and limit reference points and a decision framework* or any subsequent resolutions addressing Management Strategy Evaluation and Management Procedures.
2. The objectives of the TCMP shall be to:
 - a) Enhance the decision making response of the Commission in relation to management procedures, including recommendations made by the Scientific Committee;
 - b) Enhance communication and foster dialogue and mutual understanding between the Scientific Committee and the Commission on matters relating to management procedures; and
 - c) Assist the Commission to obtain and promote the effective use of scientific resources and information.
3. The TCMP shall meet prior to and in conjunction with the annual Commission Session, to facilitate full attendance by CPCs.
4. The outcomes of the TCMP will be considered by the annual Commission Session under a standing agenda item for that purpose, as well as through the Commission's consideration of proposals relating to management procedures.
5. The TCMP shall focus on the presentation of results and exchange of information necessary for the Commission to consider possible adoption of Management Procedures. Standard formats for the presentation of results should be used, to facilitate understanding of the material by a non-technical audience.

6. The agenda of the TCMP shall place emphasis on the elements of each Management Procedure that require a decision by the Commission. The adoption of Management Procedures is an iterative process that allows for adjustments as the work, and the understanding of the elements involved, progresses.
7. The TCMP should undertake the following:
 - a) Identifying, evaluating, and discussing management procedures for the IOTC fisheries, which help meet the objectives of the IOTC Agreement, including socioeconomics, food security, etc., identified by the Commission, the ecosystem-based approach to fisheries and the precautionary approach for the consideration of the Commission. Specifically, consideration of the following:
 - i. Overarching management objectives to guide the development of management procedures for the IOTC fisheries;
 - ii. Target and Limit Reference Points with reference to [Resolution 15/10](#) on interim target and limit reference points and a decision framework (or any subsequent revision);
 - iii. Harvest Control Rules (HCRs), including: the extent to which HCRs meet management objectives; the probabilities of achieving target reference points, avoiding limit reference points, or rebuilding; the risks to the fishery and the resource at these limit and target reference points; and allowing, in particular, the implementation of a precautionary approach as required by [Resolution 15/10](#) on interim target and limit reference points and a decision framework (or any subsequent revision);
 - b) Considering current scientific advice relating to management procedures and the need for additional scientific advice to support the Commission's consideration of management procedures.
 - c) Specifications for the roles and responsibilities of the Commission and its subcommittees, particularly the Scientific Committee and working parties, and clarifications for possible interactions and feedback between them, for each step of the management procedure development process (e.g., from technical work to be developed in WP/SC to the decision making process in the Commission).
 - d) Considering data monitoring systems and management procedure implementation mechanisms to assure the effectiveness of any of the management procedures agreed.
8. The need for a continuation of the Technical Committee on Management Procedures shall be reviewed no later than at the Annual Session of the Commission in 2019.
9. This Resolution supersedes Resolution 14/03 *On enhancing the dialogue between fisheries scientists and managers*.

RESOLUTION 16/10

TO PROMOTE IMPLEMENTATION OF IOTC CONSERVATION AND MANAGEMENT MEASURES

Keywords: Conservation and Management Measures; Capacity building.

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the desirability of improving the coherence, interpretation and accessibility of its Conservation and Management Measures;

CONCERNED that IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as “CPCs”), particularly developing CPCs, seem to find difficulties in implementing Conservation and Management Measures (CMMs) already adopted by the IOTC;

NOTING that among other things the major reasons for this situation seemed to be delivered from:

- Lack of human and financial capacity to implement CMMs;
- Frequent addition of new such measures and modifications to existing ones;
- Complicated structure of CMMs adopted by IOTC;
- Duplication of CMMs on one subject.

CONSIDERING that streamlining of IOTC work and enhancement of capacity building are necessary to drastically promote the implementation of CMMs;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

SPECIAL FUND FOR CAPACITY BUILDING

1. The Commission shall maintain a special fund for capacity building in order to ensure compliance with CMMs adopted by the IOTC. This special fund shall be financed by voluntary contributions and via an IOTC Regular Budget component. The IOTC Secretariat shall contact international organizations, donor agencies and non-governmental organizations to seek voluntary financial contribution.
2. The Special Fund for Capacity Building shall be utilized, over the next five (5) years (2017–2021), focus on, inter alia, (i) to improve data collection in developing CPCs and (ii) to develop capacity in implementation of CMMs.
3. At its plenary meeting in 2021, the Commission shall decide the next priority areas for the period from 2022-2026.

ARRANGEMENT OF PROPOSALS TO BE SUBMITTED AND LIMITATION TO THE NUMBER OF PROPOSALS TO BE CONSIDERED

4. To further improve coordination in development process of proposals for new and/or revised CMMs to be considered at the Sessions of the Commission, Contracting Parties are encouraged to submit a provisional title, Contracting Party sponsorship and a focal point for the proposal (including the email address of the focal point), a minimum of 60 days prior to each annual Session so that all Contracting Parties are provided with an opportunity to identify proposals being developed by other CPCs, and as appropriate, cooperate in the development of proposals prior to the Session in which they are to be discussed. Where possible, duplication shall be avoided and consensus may be reached on contentious matters before the Session, thereby improving efficiency during Plenary. Whether such consultation is held or not, proposals shall be submitted 30 days before the Commission meeting. Except for proposals based on recommendations of the CoC and SCAF, proposals received after the deadline shall be considered by the Commission if agreed by the Commission.
5. The Commission may consider limiting the number of new proposals to be considered at one plenary meeting.

STREAMLINING OF RESOLUTIONS

6. The Commission shall consider streamlining existing CMMs by:
 - a) Abolishing outdated CMMs and incorporating key elements that remain to be fully implemented into a new CMM.
 - b) Combining multiple CMMs into a single CMM with multiple sections relating to a single broad subject area.
7. This Resolution supersedes Resolution 12/10 *to Promote implementation of Conservation and Management Measures already adopted by IOTC*.

RESOLUTION 16/11

ON PORT STATE MEASURES TO PREVENT, DETER AND ELIMINATE ILLEGAL, UNREPORTED AND UNREGULATED FISHING

Keywords: Port State Measures; IUU; Ports; Inspections; Port State; Flag State; Port Inspection Reports; landing.

The Indian Ocean Tuna Commission (IOTC),

DEEPLY CONCERNED about the continuation of illegal, unreported and unregulated fishing in the IOTC Area and its detrimental effect upon fish stocks, marine ecosystems and the livelihoods of legitimate fishers in particular in Small Island Developing States, and the increasing need for food security in the region;

CONSCIOUS of the role of the port State in the adoption of effective measures to promote the sustainable use and the long-term conservation of living marine resources;

RECOGNISING that measures to combat illegal, unreported and unregulated fishing should build on the primary responsibility of flag States and use all available jurisdiction in accordance with international law, including port State measures, coastal State measures, market related measures and measures to ensure that nationals do not support or engage in illegal, unreported and unregulated fishing;

RECOGNISING that port State measures provide a powerful and cost-effective means of preventing, deterring and eliminating illegal, unreported and unregulated fishing;

AWARE of the need for increasing coordination at the regional and interregional levels to combat illegal, unreported and unregulated fishing through port State measures;

RECOGNISING the need for assistance to developing countries, in particular Small Island Developing States to adopt and implement port State measures;

TAKING NOTE OF the binding Agreement on port State measures to combat IUU fishing which was adopted and opened for signature within the framework of FAO in November 2009, and desiring to implement this Agreement in an efficient manner in the IOTC Area;

BEARING IN MIND that, in the exercise of their sovereignty over ports located in their territory, IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) may adopt more stringent measures, in accordance with international law;

RECALLING the relevant provisions of the United Nations Convention on the Law of the Sea of 10 December 1982, hereinafter referred to as the Convention;

RECALLING the 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 of 4 December 1995, the Agreement to Promote Compliance with International Conservation and Management Resolutions by Fishing Vessels on the High Seas of 24 November 1993 and the 1995 FAO Code of Conduct for Responsible Fisheries;

RECOGNISING recent achievements in developing a computerised communication system as provided for in Annex IV of Resolution 10/11 **[superseded by Resolution 16/11]** *On port State measures to prevent, deter and eliminate illegal, unreported and unregulated fishing* referred to as the e-PSM (electronic port State measures) application and the delivery of national training programme on the usage of this application;

ENSURING the uptake and gradual transition to full utilisation of the e-PSM application designed to facilitate compliance with this resolution;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

PART 1

GENERAL PROVISIONS

1. *Use of terms*

For the purposes of this Resolution:

- a) “fish” means all species of highly migratory fish stocks covered by the IOTC Agreement;
- b) “fishing” means searching for, attracting, locating, catching, taking or harvesting fish or any activity which can reasonably be expected to result in the attracting, locating, catching, taking or harvesting of fish;
- c) “fishing related activities” means any operation in support of, or in preparation for, fishing, including the landing, packaging, processing, transshipping or transporting of fish that have not been previously landed at a port, as well as the provisioning of personnel, fuel, gear and other supplies at sea;
- d) “illegal, unreported and unregulated fishing” refers to the activities set out in paragraph 1 of the Resolution 09/03 **[superseded by Resolution 11/03, 17/03 then 18/03]**;
- e) “port” includes offshore terminals and other installations for landing, transshipping, packaging, processing, refuelling or resupplying; and
- f) “vessel” means any vessel, ship of another type or boat used for, equipped to be used for, or intended to be used for, fishing or fishing related activities.

2. *Objective*

The objective of this Resolution is to prevent, deter and eliminate IUU fishing through the implementation of effective port State measures to control the harvest of fish caught in the IOTC Area, and thereby to ensure the long-term conservation and sustainable use of these resources and marine ecosystems.

3. *Application*

- 3.1. Each CPC shall, in its capacity as a port State, apply this Resolution in respect of vessels not entitled to fly its flag that are seeking entry to its ports or are in one of its ports, except for:
 - a) vessels of a neighbouring State that are engaged in artisanal fishing for subsistence, provided that the port State and the flag State cooperate to ensure that such vessels do not engage in IUU fishing or fishing related activities in support of such fishing; and
 - b) container vessels that are not carrying fish or, if carrying fish, only fish that have been previously landed, provided that there are no clear grounds for suspecting that such vessels have engaged in fishing related activities in support of IUU fishing.
- 3.2. This Resolution shall be applied in a fair, transparent and non-discriminatory manner, consistent with international law.
- 3.3. Each CPC may utilise the e-PSM system, available via the IOTC website, to implement this Resolution. A trial period of three years from 2016 will be provided to allow for the delivery of a complete training programme and further improvement and development. CPCs shall encourage all stakeholders (vessel representatives, port States and flag States) to utilise, to the greatest extent possible, the e-PSM application to comply with this Resolution and provide feedback and inputs contributing to its development until 1st January 2020. At the sixteenth session of the Compliance Committee the success of this application shall be evaluated and consideration shall be given to making the use of this application mandatory and defining a period for implementation. After this date the possibility to submit an advance request for port entry manually in accordance with Article 6 will remain, should access to the Internet not be possible for any reason.

4. *Integration and coordination at the national level*

Each CPC shall, to the greatest extent possible:

- a) integrate or coordinate fisheries related port State measures with the broader system of port State controls;
- b) integrate port State measures with other measures to prevent, deter and eliminate IUU fishing and fishing related activities in support of such fishing, taking into account as appropriate the 2001 FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing; and
- c) take measures to exchange information among relevant national agencies and to coordinate the activities of such agencies in the implementation of this Conservation and Management Resolution.

PART 2

ENTRY INTO PORT

5. *Designation of ports*

- 5.1. Each CPC shall designate and publicise the ports to which vessels may request entry pursuant to this Resolution. Each CPC shall provide a list of its designated ports to IOTC Secretariat before 31 December 2010, which shall give it due publicity on the IOTC website.
- 5.2. Each CPC shall, to the greatest extent possible, ensure that every port designated and publicised in accordance with point 5.1 has sufficient capacity to conduct inspections pursuant to this Resolution.

6. *Advance request for port entry*

- 6.1. Each CPC shall require the information requested in **Annex I** to be provided before granting entry to a vessel to its port.
- 6.2. Each CPC shall require the information referred to in point 6.1 to be provided at least 24 hours before entering into port or immediately after the end of the fishing operations, if the time distance to the port is less than 24 hours. For the latter, the port State must have enough time to examine the above mentioned information.

7. *Port entry, authorisation or denial*

- 7.1. After receiving the relevant information required pursuant to section 6, as well as such other information as it may require to determine whether the vessel requesting entry into its port has engaged in IUU fishing or fishing related activities in support of such fishing, each CPC shall decide whether to authorise or deny the entry of the vessel into its port and shall communicate this decision to the vessel or to its representative.
- 7.2. In the case of authorisation of entry, the master of the vessel or the vessel's representative shall be required to present the authorisation for entry to the competent authorities of the CPC upon the vessel's arrival at port.
- 7.3. In the case of denial of entry, each CPC shall communicate its decision taken pursuant to point 7.1, to the flag State of the vessel and, as appropriate and to the extent possible, relevant coastal States and IOTC Secretariat. The IOTC Secretariat may, if deemed appropriate to combat IUU fishing at global level, communicate this decision to secretariats of other RFMO's.
- 7.4. Without prejudice to point 7.1, when a CPC has sufficient proof that a vessel seeking entry into its port has engaged in IUU fishing or fishing related activities in support of such fishing, in particular the inclusion of a vessel on a list of vessels having engaged in such fishing or fishing related activities adopted by a regional fisheries management organisation in accordance with the rules and procedures of such organisation and in conformity with international law, the CPC shall deny that vessel entry into its ports.

- 7.5. Notwithstanding points 7.3 and 7.4, a CPC may allow entry into its ports of a vessel referred to in those points exclusively for the purpose of inspecting it and taking other appropriate actions in conformity with international law which are at least as effective as denial of port entry in preventing, deterring and eliminating IUU fishing and fishing related activities in support of such fishing.
- 7.6. Where a vessel referred to in points 7.4 or 7.5 is in port for any reason, a CPC shall deny such vessel the use of its ports for landing, transshipping, packaging, and processing of fish and for other port services including, *inter alia*, refuelling and resupplying, maintenance and drydocking. Points 9.2 and 9.3 of section 9 apply *mutatis mutandis* in such cases. Denial of such use of ports shall be in conformity with international law.

8. *Force majeure or distress*

Nothing in this Resolution affects the entry of vessels to port in accordance with international law for reasons of force majeure or distress, or prevents a port State from permitting entry into port to a vessel exclusively for the purpose of rendering assistance to persons, ships or aircraft in danger or distress.

PART 3 USE OF PORTS

9. *Use of ports*

- 9.1. Where a vessel has entered one of its ports, a CPC shall deny, pursuant to its laws and regulations and consistent with international law, including this Conservation and Management Resolution, that vessel the use of the port for landing, transshipping, packaging and processing of fish that have not been previously landed and for other port services, including, *inter alia*, refuelling and resupplying, maintenance and drydocking, if:
- a) the CPC finds that the vessel does not have a valid and applicable authorisation to engage in fishing or fishing related activities required by its flag State;
 - b) the CPC finds that the vessel does not have a valid and applicable authorisation to engage in fishing or fishing related activities required by a coastal State in respect of areas under the national jurisdiction of that State;
 - c) the CPC receives clear evidence that the fish on board was taken in contravention of applicable requirements of a coastal State in respect of areas under the national jurisdiction of that State;
 - d) the flag State does not confirm within a reasonable period of time, on the request of the port State, that the fish on board was taken in accordance with applicable requirements of a relevant regional fisheries management organisation; or
 - e) the CPC has reasonable grounds to believe that the vessel was otherwise engaged in IUU fishing or fishing related activities in support of such fishing, including in support of a vessel referred to in point 7.4, unless the vessel can establish:
 - i. that it was acting in a manner consistent with relevant IOTC Resolutions; or
 - ii. in the case of provision of personnel, fuel, gear and other supplies at sea, that the vessel that was provisioned was not, at the time of provisioning, a vessel referred to in point 4 of paragraph 7.
- 9.2. Notwithstanding point 9.1, a CPC shall not deny a vessel referred to in that point the use of port services:
- a) essential to the safety or health of the crew or the safety of the vessel, provided these needs are duly proven; or
 - b) where appropriate, for the scrapping of the vessel.

- 9.3. Where a CPC has denied the use of its port in accordance with this paragraph, it shall promptly notify the flag State and, as appropriate, relevant coastal States, IOTC or other regional fisheries management organisations and other relevant international organisations of its decision.
- 9.4. A CPC shall withdraw its denial of the use of its port pursuant to point 9.1 in respect of a vessel only if there is sufficient proof that the grounds on which use was denied were inadequate or erroneous or that such grounds no longer apply.
- 9.5. Where a CPC has withdrawn its denial pursuant to point 9.4, it shall promptly notify those to whom a notification was issued pursuant to point 9.3.

PART 4

INSPECTIONS AND FOLLOW-UP ACTIONS

10. *Levels and priorities for inspection*

- 10.1. Each CPC shall carry out inspections of at least 5% of landings or transhipments in its ports during each reporting year.
- 10.2. Inspections shall involve the monitoring of the entire discharge or transhipment and include a cross-check between the quantities by species recorded in the prior notice of landing and the quantities by species landed or transhipped. When the landing or transhipment is completed, the inspector shall verify and note the quantities by species of fish remaining on board.
- 10.3. National inspectors shall make all possible efforts to avoid unduly delaying a vessel and ensure that the vessel suffers the minimum interference and inconvenience and that degradation of the quality of the fish is avoided.
- 10.4. The port CPC may invite inspectors of other CPC to accompany their own inspectors and observe the inspection of landings or transhipment operations of fishery resources caught by fishing vessels flying the flag of another CPC.

11. *Conduct of inspections*

- 11.1. Each CPC shall ensure that its inspectors carry out the functions set forth in **Annex II** as a minimum standard.
- 11.2. Each CPC shall, in carrying out inspections in its ports:
 - a) ensure that inspections are carried out by properly qualified inspectors authorised for that purpose, having regard in particular to section 14;
 - b) ensure that, prior to an inspection, inspectors are required to present to the master of the vessel an appropriate document identifying the inspectors as such;
 - c) ensure that inspectors examine all relevant areas of the vessel, the fish on board, the nets and any other gear, equipment, and any document or record on board that is relevant to verifying compliance with relevant Conservation and Management Resolutions;
 - d) require the master of the vessel to give inspectors all necessary assistance and information, and to present relevant material and documents as may be required, or certified copies thereof;
 - e) in case of appropriate arrangements with the flag State of the vessel, invite the flag State to participate in the inspection;
 - f) make all possible efforts to avoid unduly delaying the vessel to minimise interference and inconvenience, including any unnecessary presence of inspectors on board, and to avoid action that would adversely affect the quality of the fish on board;

- g) make all possible efforts to facilitate communication with the master or senior crew members of the vessel, including where possible and where needed that the inspector is accompanied by an interpreter;
- h) ensure that inspections are conducted in a fair, transparent and non-discriminatory manner and would not constitute harassment of any vessel; and
- i) not interfere with the master's ability, in conformity with international law, to communicate with the authorities of the flag State.

12. *Results of inspections*

Each CPC shall, as a minimum standard, include the information set out in **Annex III** in the written report of the results of each inspection.

13. *Transmittal of inspection results*

13.1. The port State CPC shall, within three full working days of the completion of the inspection, transmit by electronic means a copy of the inspection report and, upon request, an original or a certified copy thereof, to the master of the inspected vessel, to the flag State, to the IOTC Secretariat and, as appropriate, to:

- a) the flag State of any vessel that transhipped catch to the inspected vessel;
- b) the relevant CPCs and States, including those States for which there is evidence through inspection that the vessel has engaged in IUU fishing, or fishing related activities in support of such fishing, within waters under their national jurisdiction; and
- c) the State of which the vessel's master is a national.

13.2. The IOTC Secretariat shall without delay transmit the inspection reports to the relevant regional fisheries management organisations, and post the inspection report on the IOTC website.

14. *Training of inspectors*

Each CPC shall ensure that its inspectors are properly trained taking into account the guidelines for the training of inspectors in **Annex V**. CPC shall seek to cooperate in this regard.

15. *Port State actions following inspection*

15.1. Where, following an inspection, there are clear grounds for believing that a vessel has engaged IUU fishing or fishing related activities in support of such fishing, the inspecting CPC shall:

- a) promptly notify the flag State, the IOTC Secretariat and, as appropriate, relevant coastal States, and other regional fisheries management organisations, and the State of which the vessel's master is a national of its findings; and
- b) deny the vessel the use of its port for landing, transhipping, packaging and processing of fish that have not been previously landed and for other port services, including, *inter alia*, refuelling and resupplying, maintenance and drydocking, if these actions have not already been taken in respect of the vessel, in a manner consistent with this Conservation and Management Resolution.

15.2. Notwithstanding point 15.1, a CPC shall not deny a vessel referred to in that point the use of port services essential for the safety or health of the crew or the safety of the vessel.

15.3. Nothing in this Resolution prevents a CPC from taking measures that are in conformity with international law in addition to those specified in points 15.1 and 15.2, including such measures as the flag State of the vessel has expressly requested or to which it has consented.

16. *Information on recourse in the port State*

- 16.1. A CPC shall maintain the relevant information available to the public and provide such information, upon written request, to the owner, operator, master or representative of a vessel with regard to any recourse established in accordance with its national laws and regulations concerning port State measures taken by that CPC pursuant to sections 7, 9, 11 or 15, including information pertaining to the public services or judicial institutions available for this purpose, as well as information on whether there is any right to seek compensation in accordance with its national laws and regulations in the event of any loss or damage suffered as a consequence of any alleged unlawful action by the CPC.
- 16.2. The CPC shall inform the flag State, the owner, operator, master or representative, as appropriate, of the outcome of any such recourse. Where other Parties, States or international organisations have been informed of the prior decision pursuant to sections 7, 9, 11 or 15, the CPC shall inform them of any change in its decision.

PART 5

ROLE OF FLAG STATES

17. *Role of CPCs flag States*

- 17.1. Each CPCs shall require the vessels entitled to fly its flag to cooperate with the port State in inspections carried out pursuant to this Resolution.
- 17.2. When a CPC has clear grounds to believe that a vessel entitled to fly its flag has engaged in IUU fishing or fishing related activities in support of such fishing and is seeking entry to or is in the port of another State, it shall, as appropriate, request that State to inspect the vessel or to take other measures consistent with this Resolution.
- 17.3. Each CPC shall encourage vessels entitled to fly its flag to land, tranship, package and process fish, and use other port services, in ports of States that are acting in accordance with, or in a manner consistent with this Resolution. CPCs are encouraged to develop fair, transparent and non-discriminatory procedures for identifying any State that may not be acting in accordance with, or in a manner consistent with, this Resolution.
- 17.4. Where, following port State inspection, a flag State CPC receives an inspection report indicating that there are clear grounds to believe that a vessel entitled to fly its flag has engaged in IUU fishing or fishing related activities in support of such fishing, it shall immediately and fully investigate the matter and shall, upon sufficient evidence, take enforcement action without delay in accordance with its laws and regulations.
- 17.5. Each CPC shall, in its capacity as a flag State, report to other CPCs, relevant port States and, as appropriate, other relevant States, regional fisheries management organisations and FAO on actions it has taken in respect of vessels entitled to fly its flag that, as a result of port State measures taken pursuant to this Resolution, have been determined to have engaged in IUU fishing or fishing related activities in support of such fishing.
- 17.6. Each CPC shall ensure that measures applied to vessels entitled to fly its flag are at least as effective in preventing, deterring, and eliminating IUU fishing and fishing related activities in support of such fishing as measures applied to vessels referred to in point 3.1.

PART 6

REQUIREMENTS OF DEVELOPING STATES

18. *Requirements of developing States*

- 18.1. CPCs shall give full recognition to the special requirements of CPCs developing States in relation to the implementation of this Resolution. To this end, IOTC should provide assistance to CPCs developing States in order to, *inter alia*:
- a) enhance their ability, in particular the least-developed among them and small island developing States, to develop a legal basis and capacity for the implementation of effective port State measures;
 - b) facilitate their participation in any international organisations that promote the effective development and implementation of port State measures; and
 - c) facilitate technical assistance to strengthen the development and implementation of port State measures by them, in coordination with relevant international mechanisms.
- 18.2. IOTC shall give due regard to the special requirements of developing CPCs port States, in particular the least-developed among them and small island developing States, to ensure that a disproportionate burden resulting from the implementation of this Resolution is not transferred directly or indirectly to them. In cases where the transfer of a disproportionate burden has been demonstrated, CPCs shall cooperate to facilitate the implementation by the relevant CPCs developing States of specific obligations under this Resolution.
- 18.3. IOTC shall assess the special requirements of CPCs developing States concerning the implementation of this Resolution.
- 18.4. IOTC CPCs shall cooperate to establish appropriate funding mechanisms to assist CPCs developing States in the implementation of this Resolution. These mechanisms shall, *inter alia*, be directed specifically towards:
- a) developing and enhancing capacity, including for monitoring, control and surveillance and for training at the national and regional levels of port managers, inspectors, and enforcement and legal personnel;
 - b) monitoring, control, surveillance and compliance activities relevant to port State measures, including access to technology and equipment; and
 - c) listing CPCs developing States with the costs involved in any proceedings for the settlement of disputes that result from actions they have taken pursuant to this Resolution.

PART 7

DUTIES OF THE IOTC SECRETARIAT

19. *Duties of the IOTC Secretariat*

- 19.1. The IOTC Secretariat shall without delay post on the IOTC website:
- a) the list of designated ports;
 - b) the prior notification periods established by each CPC;
 - c) the information about the designated competent authority in each port State CPC;
 - d) the blank copy of the IOTC Port inspection report form.
- 19.2. The IOTC Secretariat shall without delay post on the secure part of the IOTC website copies of all Port inspection reports transmitted by port State CPCs.
- 19.3. All forms related to a specific landing or transshipment shall be posted together.



- 19.4. The IOTC Secretariat shall without delay transmit the inspection reports to the relevant regional fisheries management organisations.
20. This Resolution shall be applied to CPCs' ports within the IOTC area of competence. The CPCs situated outside the IOTC area of competence shall endeavour to apply this Resolution.
21. This Resolution supersedes Resolution 10/11 *on Port State Measures to prevent, deter and eliminate illegal, unreported and unregulated fishing.*

ANNEX I

Information to be provided in advance by vessels requesting port entry

1. Intended port of call										
2. Port State										
3. Estimated date and time of arrival										
4. Purpose(s)										
5. Port and date of last port call										
6. Name of the vessel										
7. Flag State										
8. Type of vessel										
9. International Radio Call Sign										
10. Vessel contact information										
11. Vessel owner(s)										
12. Certificate of registry ID										
13. IMO ship ID, if available										
14. External ID, if available										
15. IOTC ID										
16. VMS		No		Yes: National		Yes: RFMO(s)		Type:		
17. Vessel dimensions			Length		Beam		Draft			
18. Vessel master name and nationality										
19. Relevant fishing authorization(s)										
<i>Identifier</i>	<i>Issued by</i>	<i>Validity</i>	<i>Fishing area(s)</i>	<i>Species</i>	<i>Gear</i>					
20. Relevant transshipment authorization(s)										
<i>Identifier</i>		<i>Issued by</i>		<i>Validity</i>						
<i>Identifier</i>		<i>Issued by</i>		<i>Validity</i>						
21. Transshipment information concerning donor vessels										
<i>Date</i>	<i>Location</i>	<i>Name</i>	<i>Flag State</i>	<i>ID</i>	<i>Species</i>	<i>Product</i>	<i>Catch area</i>	<i>Quantity</i>		
22. Total catch onboard							23. Catch to be offloaded			
<i>Species</i>	<i>Product form</i>	<i>Catch area</i>	<i>Quantity</i>				<i>Quantity</i>			

ANNEX II

Port State inspection procedures

Inspectors shall:

- a) verify, to the extent possible, that the vessel identification documentation onboard and information relating to the owner of the vessel is true, complete and correct, including through appropriate contacts with the flag State or international records of vessels if necessary;
- b) verify that the vessel's flag and markings (e.g. name, external registration number, International Maritime Organization (IMO) ship identification number, international radio call sign and other markings, main dimensions) are consistent with information contained in the documentation;
- c) verify, to the extent possible, that the authorizations for fishing and fishing related activities are true, complete, correct and consistent with the information provided in accordance with Annex 1;
- d) review all other relevant documentation and records held onboard, including, to the extent possible, those in electronic format and vessel monitoring system (VMS) data from the flag State or IOTC Secretariat or other relevant regional fisheries management organizations (RFMOs). Relevant documentation may include logbooks, catch, transshipment and trade documents, crew lists, stowage plans and drawings, descriptions of fish holds, and documents required pursuant to the Convention on International Trade in Endangered Species of Wild Fauna and Flora;
- e) examine, to the extent possible, all relevant fishing gear onboard, including any gear stowed out of sight as well as related devices, and to the extent possible, verify that they are in conformity with the conditions of the authorizations. The fishing gear shall, to the extent possible, also be checked to ensure that features such as the mesh and twine size, devices and attachments, dimensions and configuration of nets, pots, dredges, hook sizes and numbers are in conformity with applicable regulations and that the markings correspond to those authorized for the vessel;
- f) determine, to the extent possible, whether the fish on board was harvested in accordance with the applicable authorizations;
- g) examine the fish, including by sampling, to determine its quantity and composition. In doing so, inspectors may open containers where the fish has been pre-packed and move the catch or containers to ascertain the integrity of fish holds. Such examination may include inspections of product type and determination of nominal weight;
- h) evaluate whether there is clear evidence for believing that a vessel has engaged in IUU fishing or fishing related activities in support of such fishing;
- i) provide the master of the vessel with the report containing the result of the inspection, including possible measures that could be taken, to be signed by the inspector and the master. The master's signature on the report shall serve only as acknowledgment of the receipt of a copy of the report. The master shall be given the opportunity to add any comments or objection to the report, and, as appropriate, to contact the relevant authorities of the flag State in particular where the master has serious difficulties in understanding the content of the report. A copy of the report shall be provided to the master; and
- j) arrange, where necessary and possible, for translation of relevant documentation.

ANNEX III
IOTC Port inspection report form

1. Inspection report no		2. Port State	
3. Inspecting authority			
4. Name of principal inspector		ID	
5. Port of inspection			
6. Commencement of inspection		YYYY	MM DD HH
7. Completion of inspection		YYYY	MM DD HH
8. Advanced notification received		Yes	No
9. Purpose(s)	LAN	TRX	PRO OTH (specify)
10. Port and State and date of last port call		YYYY	MM DD
11. Vessel name			
12. Flag State			
13. Type of vessel			
14. International Radio Call Sign			
15. Certificate of registry ID			
16. IMO ship ID, if available			
17. External ID, if available			
18. Port of registry			
19. Vessel owner(s)			
20. Vessel beneficial owner(s), if known and different from vessel owner			
21. Vessel operator(s), if different from vessel owner			
22. Vessel master name and nationality			
23. Fishing master name and nationality			
24. Vessel agent			
25. VMS	No	Yes: National	Yes: RFMOs Type:
26. Status in IOTC, including any IUU vessel listing			
Vessel identifier	RFMO	Flag State status	Vessel on authorised vessel list Vessel on IUU vessel list
27. Relevant fishing authorisation(s)			
<i>Identifier</i>	<i>Issued by</i>	<i>Validity</i>	<i>Fishing area(s)</i> <i>Species</i> <i>Gear</i>
28. Relevant transshipment authorisation(s)			
<i>Identifier</i>	<i>Issued by</i>	<i>Validity</i>	
<i>Identifier</i>	<i>Issued by</i>	<i>Validity</i>	
29. Transshipment information concerning donor vessels			
<i>Name</i>	<i>Flag State</i>	<i>ID no</i>	<i>Species</i> <i>Product form</i> <i>Catch area(s)</i> <i>Quantity</i>



30. Evaluation of offloaded catch (quantity)						
Species	Product form	Catch area(s)	Quantity declared	Quantity offloaded	Difference between quantity declared and quantity determined, if any	
31. Catch retained onboard (quantity)						
Species	Product form	Catch area(s)	Quantity declared	Quantity retained	Difference between quantity declared and quantity determined, if any	
32. Examination of logbook(s) and other documentation				Yes	No	Comments
33. Compliance with applicable catch documentation scheme(s)				Yes	No	Comments
34. Compliance with applicable trade information scheme(s)				Yes	No	Comments
35. Type of gear used						
36. Gear examined in accordance with paragraph e) of Annex II			Yes	No	Comments	
37. Findings by inspector(s)						
38. Apparent infringement(s) noted including reference to relevant legal instrument(s)						
39. Comments by the master						
40. Action taken						



41. Master's signature
42. Inspector's signature

ANNEX IV

Information systems on port State measures

In implementing this Conservation and Management Resolution, each CPC shall:

- a) seek to establish computerised communication;
- b) establish, to the extent possible, websites to publicise the list of ports designated in accordance with point 5.1 and the actions taken in accordance with the relevant provisions of this Conservation and Management Resolution;
- c) identify, to the greatest extent possible, each inspection report by a unique reference number starting with 3-alpha code of the port State and identification of the issuing agency;
- d) utilise, to the extent possible, the international coding system below in **Annexes I** and **III** and translate any other coding system into the international system.

countries/territories:	ISO-3166 3-alpha Country Code
species:	ASFIS 3-alpha code (known as FAO 3-alpha code)
vessel types:	ISSCFV code (known as FAO alpha code)
gear types:	ISSCFG code (known as FAO alpha code)

ANNEX V

Guidelines for the training of inspectors

Elements of a training programme for port State inspectors should include at least the following areas:

1. Ethics;
2. Health, safety and security issues;
3. Applicable national laws and regulations, areas of competence and Conservation and Management Resolutions of the IOTC, and applicable international law;
4. Collection, evaluation and preservation of evidence;
5. General inspection procedures such as report writing and interview techniques;
6. Analysis of information, such as logbooks, electronic documentation and vessel history (name, ownership and flag State), required for the validation of information given by the master of the vessel;
7. Vessel boarding and inspection, including hold inspections and calculation of vessel hold volumes;
8. Verification and validation of information related to landings, transshipments, processing and fish remaining onboard, including utilising conversion factors for the various species and products;
9. Identification of fish species, and the measurement of length and other biological parameters;
10. Identification of vessels and gear, and techniques for the inspection and measurement of gear;
11. Equipment and operation of VMS and other electronic tracking systems; and
12. Actions to be taken following an inspection.



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ACTIVE CMMs ADOPTED AT THE NINETEENTH SESSION OF THE IOTC

2015

RESOLUTION 15/01

ON THE RECORDING OF CATCH AND EFFORT DATA BY FISHING VESSELS IN THE IOTC AREA OF COMPETENCE

Keywords: Data recording; logbook; purse seine; longline; gillnet; pole and line; handline; trolling; fishing vessels.

The Indian Ocean Tuna Commission (IOTC),

RECALLING the commitment made by Contracting Parties under Article V of the IOTC Agreement to keep under review the conditions and trends of the stocks and to gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks covered by the Agreement;

CONSIDERING the provisions set forth in [Resolution 15/02](#) *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)* (or any subsequent superseding Resolution), and in particular paragraph 4, which sets out the catch and effort reporting requirements for surface fisheries, longline and coastal fisheries;

ACKNOWLEDGING that the IOTC Scientific Committee has repeatedly stressed the importance of the timeliness and accuracy of data submissions for Members;

ALSO RECALLING the outcomes of the 9th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 November 2006 where it was agreed that a standardised logbook would be advantageous and agreed on the minimum requirements for all purse seine and bait boat fleets operating in the IOTC area of competence in order to harmonise data gathering and provide a common basis for scientific analysis for all IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs);

FURTHER RECALLING the recommendations adopted by the KOBE II Workshop on Bycatch, held in Brisbane, Australia, 23–25 June 2010; in particular that RFMOs should consider adopting standards for bycatch data collection which, at a minimum, allows the data to contribute to the assessment of bycatch species population status and evaluation of the effectiveness of bycatch measures, and that the data should allow the RFMOs to assess the level of interaction of the fisheries with bycatch species;

FURTHER CONSIDERING the work of the small task force created by the IOTC Scientific Committee during its 10th Session held in Seychelles in November 2007, to harmonise the various forms currently used by the fleets and the IOTC Scientific Committee agreement on the minimum standard requirements for all purse seine, longline and gillnet fleets as well as the produced logbook template;

FURTHER CONSIDERING the deliberations of the 13th Session of the IOTC Scientific Committee held in Victoria, Seychelles from 6 to 10 December 2010, that recommended three options, one of which is mandatory reporting of a revised list of shark species in logbooks to improve the data collection and statistics on sharks in the IOTC area of competence;

FURTHER CONSIDERING the deliberations of the 14th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 12 to 17 December 2011, that proposed a list of shark species for all gears and recommended minimum recording requirements for handline and trolling gears in the IOTC area of competence;

FURTHER CONSIDERING the recommendations of the 17th Session of the IOTC Scientific Committee referring to bycatch;

FURTHER CONSIDERING the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements included in the United Nations General Assembly Resolution 67/79 on sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to

mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and turtles;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. Each flag CPC shall ensure that all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels flying its flag and authorised to fish species managed by IOTC be subject to a data recording system.
2. The measure shall apply to all purse seine, longline, gillnet, pole and line, handline and trolling fishing vessels over 24 metres length overall and those under 24 metres if they fish outside the EEZs of their flag States within the IOTC area of competence. The data recording systems for developing CPCs vessels less than 24 metres operating within the EEZ of coastal States are subject to Paragraphs 11 and 12. The vessels of less than 24 metres operating within the EEZ of developed CPCs shall apply this measure.
3. All vessels shall keep a bound paper or electronic logbook to record data that includes, as a minimum requirement, the information and data in the logbook set forth in **Annex I, II and III**.
4. Each flag CPC shall submit to the IOTC Executive Secretary by 15 February 2016 a template of its official logbooks to record data in accordance with **Annex I, II and III**, for publishing on the IOTC website to facilitate MCS activities. For CPCs that use electronic logbook systems, a copy of the applicable regulations implementing the electronic logbook system in that CPC, a set of screen captures and the name of the certified software may be provided. If changes are made to the template after 15 February 2016, an updated template shall be submitted.
5. Where the logbook is not in one of the two languages of the IOTC, CPCs shall provide a complete field description of the logbook in one of the two languages of the IOTC together with the submission of the sample of the logbook. The IOTC Executive Secretary shall publish the sample of the logbook and the field description on the IOTC website.
6. **Annex I** includes information on vessel, trip and gear configuration for purse seine, longline, gillnet and pole and line, and shall only be completed once for each trip, unless the gear configuration changes during the trip.
7. **Annex II** contains information for purse seine, longline, gillnet and pole and line operations and catch, which shall be completed for each set/shot/operation of the fishing gear.
8. **Annex III** contains specifications for handline and trolling gears.
9. The logbook shall be completed by the Master of the fishing vessel and submitted to the flag State administration, as well as to the coastal State administration where the vessel has fished in that coastal State's EEZ. Only the part of the logbook corresponding to the activity deployed in the coastal State EEZ shall be provided to the coastal State administration where the vessel has fished in that coastal State's EEZ.
10. The Flag State shall provide all the data for any given year to the IOTC Secretariat by June 30th of the following year on an aggregated basis. The confidentiality rules set out in [Resolution 12/02 Data Confidentiality Policy and Procedures](#) (or any subsequent superseding Resolution) for fine-scale data shall apply.
11. Noting the difficulty in implementing a data recording system on fishing vessels from developing CPCs, the data recording systems for vessels less than 24 metres of developing CPCs operating inside the EEZ shall be implemented progressively from 1 July 2016.
12. The Commission shall consider development of a special program to facilitate the implementation of this Resolution by developing CPCs. Furthermore, developed and developing CPCs are encouraged to work together to identify opportunities for capacity building to assist the long-term implementation of this Resolution.
13. This Resolution supersedes Resolution 13/03 *On the recording of catch and effort by fishing vessels in the IOTC area of competence*.



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ANNEX I
Record once per trip (unless gear configuration changes)

1.1 REPORT INFORMATION

1. Date of the submission of logbook
2. Name of reporting person

1.2 VESSEL INFORMATION

1. Vessel name and/or registration number
2. IMO number, where available
3. IOTC number
4. Call sign: if call sign is not available, other unique identifying code such as fishing licence number should be used
5. Vessel size: gross tonnage and overall length (meters)

1.3 CRUISE INFORMATION

For multiday fishing operations record the:

1. Departure date (at your location) and port
2. Arrival date (at your location) and port

1.4 OTHER REQUIRED INFORMATION

Longline (Gear Configuration):

1. Average branch line length (meters): straight length in meters between snap and hook (**Figure 1**)
2. Average float line length (meters): straight length in meters from the float to the snap
3. Average length between branch (meters): straight length of main line in meters between successive branch lines
4. Main line material classified into four categories:
 - a. Thick rope (Cremona rope)
 - b. Thin rope (Polyethylene or other materials)
 - c. Nylon braided
 - d. Nylon monofilament
5. Material of the terminal tackle of the branch line (leader/trace) classified into two categories:
 - a. Nylon monofilament
 - b. Other (such as wire)

Purse Seine:

(Gear configuration):

1. Length of the purse seine net

2. Height of the purse seine net
3. Total number of FADs deployed per trip: refer to the Resolution 15/08 [**superseded by Resolution 17/08, by Resolution 18/08 and then by Resolution 19/02**] *Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species* (or any subsequent superseding Resolution.)

(Search information):

1. Days searched
2. Spotter plane used (Yes/No)
3. Supply vessel used (Yes/No), if yes what is the name and registration number of the supply vessel

Gillnet (Gear Configuration):

1. Overall length of net (metres): record the total overall length of the net onboard
2. Mesh size of net (millimetres): record the mesh size (measured between opposite knots when fully stretched) used during the trip
3. Depth of assembled net (meters): height of assembled net in meters
4. Netting material: e.g. nylon braid, nylon monofilament, etc.

Pole and line (Gear Configuration):

1. Number of fishermen

ANNEX II
Record once per set/shot/operation

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

2.1 OPERATION

For longline:

1. Date of set
2. Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc.) may be optionally used
3. Time of starting setting and, when possible, retrieving the gear
4. Number of hooks between floats: if there are different hooks counts between floats in a single set then record the most representative (average) number
5. Total number of hooks used in the set
6. Number of light-sticks used in the set
7. Type of bait used in the set: e.g. fish, squid, etc.
8. Optionally, sea surface temperature at noon with one decimal point (XX.X°C)

For purse seine:

1. Date of set
2. Type of event: fishing set or deployment of a new FAD
3. Position in latitude and longitude and time of event, or if no event during the day, at noon
4. If fishing set: specify if the set was successful, nil, well; type of school (free swimming school or FAD associated. If FAD associated, specify the type (e.g. log or other natural object, drifting FAD, anchored FAD, etc.). Refer to the Resolution 15/08 **[superseded by Resolution 17/08, by Resolution 18/08 and then by [Resolution 19/02](#)]** *Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species* (or any subsequent superseding Resolution)
5. Optionally, sea surface temperature at noon with one decimal point (XX.X°C)

For gillnet:

1. Date of set: record the date for each set or day at sea (for days without sets)
2. Total length of net (meters): floatline length used for each set in meters
3. Start fishing time: record the time when starting each set and, when possible, gear retrieving
4. Start and end position in latitude and longitude: record start and end latitude and longitude that represent the area that your gear is set between or, if no set, record the latitude and longitude at noon for days without sets

5. Depth at which net is set (meters): approximate depth at which the gillnet is set

For Pole and Line:

Fishing effort information in logbooks shall be recorded by day. Catch information in logbooks shall be recorded by trip or, when possible, by fishing day.

1. Date of operation: record the day or date
2. Position in latitude and longitude at noon
3. Number of fishing poles used during that day
4. Start fishing time (record the time immediately after bait fishing is complete and the vessel heads to the ocean for fishing. For multiple days, the time at which search starts should be recorded) and end fishing time (record the time immediately after fishing is complete from the last school; on multiple days this is the time fishing stopped from the last school). For multiple days number of fishing days should be recorded.
5. Type of school: FAD associated and/or free school

2.2 CATCH

1. Catch weight (kg) or number by species per set/shot/fishing event for each of the species and form of processing in section 2.3:
 - a. For longline by number and weight
 - b. For purse seine by weight
 - c. For gillnet by weight
 - d. For pole and line by weight or number

2.3 SPECIES

For Longline:

Primary Species	FAO code	Other Species	FAO code
Southern bluefin tuna (<i>Thunnus maccoyii</i>)	SBF	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	SSP
Albacore (<i>Thunnus alalunga</i>)	ALB	Blue shark (<i>Prionace glauca</i>)	BSH
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Mako sharks (<i>Isurus</i> spp.)	MAK
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Porbeagle shark (<i>Lamna nasus</i>)	POR
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Hammerhead sharks (<i>Sphyrna</i> spp.)	SPN
Swordfish (<i>Xiphius gladius</i>)	SWO	Silky shark (<i>Carcharhinus falciformis</i>)	FAL
Striped marlin (<i>Tetrapturus audax</i>)	MLS	Other bony fishes	MZZ
Blue marlin (<i>Makaira nigricans</i>)	BUM	Other sharks	SKH

Black marlin (<i>Makaira indica</i>)	BLM	Seabirds (in number) ¹	
Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA	Marine Mammals (in number)	MAM
		Marine turtles (in number)	TTX
		Thresher sharks (<i>Alopias</i> spp.)	THR
		Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
		Optional species to be recorded	
		Tiger shark (<i>Galeocerdo cuvier</i>)	TIG
		Crocodile shark (<i>Pseudocarcharias kamoharai</i>)	PSK
		Great white shark (<i>Carcharodon carcharias</i>)	WSH
		Mantas and devil rays (<i>Mobulidae</i>)	MAN
		Pelagic stingray (<i>Pteroplatytrygon violacea</i>)	PLS
		Other rays	

For Purse Seine:

Primary Species	FAO code	Other species	FAO code
Albacore (<i>Thunnus alalunga</i>)	ALB	Marine turtles (in number)	TTX
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Marine mammals (in number)	MAM
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Whale sharks (<i>Rhincodon typus</i>) (in number)	RHN
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Thresher sharks (<i>Alopias</i> spp.)	THR
Other IOTC species		Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
		Silky sharks (<i>Carcharhinus falciformis</i>)	FAL
		Optional species to be recorded	FAO code
		Mantas and devil rays (<i>Mobulidae</i>)	MAN
		Other sharks	SKH
		Other rays	

¹ When a CPC is fully implementing the observer program the provision of seabird data is optional

		Other bony fish	MZZ
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For Gillnet:

Primary Species	FAO code	Other Species	FAO code
Albacore (<i>Thunnus alalunga</i>)	ALB	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	SSP
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Blue shark (<i>Prionace glauca</i>)	BSH
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Mako sharks (<i>Isurus</i> spp.)	MAK
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Porbeagle shark (<i>Lamna nasus</i>)	POR
Longtail tuna (<i>Thunnus tonggol</i>)	LOT	Hammerhead sharks (<i>Sphyrna</i> spp.)	SPN
Frigate tuna (<i>Auxis thazard</i>)	FRI	Other sharks	SKH
Bullet tuna (<i>Auxis rochei</i>)	BLT	Other bony fish	MZZ
Kawakawa (<i>Euthynnus affinis</i>)	KAW	Marine turtles (in number)	TTX
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	COM	Marine mammals (in number)	MAM
Indo-Pacific king mackerel (<i>Scomberomorus guttatus</i>)	GUT	Whale sharks (<i>Rhincodon typus</i>) (in number)	RHN
Swordfish (<i>Xiphias gladius</i>)	SWO	Seabirds (in number) ²	
Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA	Thresher sharks (<i>Alopias</i> spp.)	THR
Marlins (<i>Tetrapturus</i> spp, <i>Makaira</i> spp.)	BIL	Oceanic whitetip shark (<i>Carcharhinus longimanus</i>)	OCS
Southern bluefin tuna (<i>Thunnus maccoyii</i>)	SBF	Optional species to be recorded	
		Tiger shark (<i>Galeocerdo cuvier</i>)	TIG
		Crocodile shark (<i>Pseudocarcharias kamoharai</i>)	PSK
		Mantas and devil rays (Mobulidae)	MAN
		Pelagic stingray (<i>Pteroplatytrygon violacea</i>)	PLS
		Other rays	

For Pole and Line:

Primary Species	FAO code	Other Species	FAO code

² When a CPC is fully implementing the observer program the provision of seabird data is optional

Albacore (<i>Thunnus alalunga</i>)	ALB	Other bony fish	MZZ
Bigeye tuna (<i>Thunnus obesus</i>)	BET	Sharks	SKH
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT	Rays	
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ	Marine turtles (in number)	TTX
Frigate and bullet tuna (<i>Auxis</i> spp.)	FRZ		
Kawakawa (<i>Euthynnus affinis</i>)	KAW		
Longtail tuna (<i>Thunnus tonggol</i>)	LOT		
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	COM		
Other IOTC species			

2.4 REMARKS

1. Discard of tuna, tuna-like fish and sharks to be recorded by species in weight (kg) or number for all gears should be recorded in the remarks³
2. Any interactions with whale sharks (*Rhincodon typus*), marine mammals, and seabirds should be recorded in the remarks
3. Other information is also written in the remarks

Note: The species included in the logbooks are regarded as minimum requirement. Optionally other frequently caught shark and/or fish species should be added as required across different areas and fisheries.

³ Recall the Recommendation 10/13 *On the implementation of a ban on discards of skipjack tuna, Yellowfin tuna, bigeye tuna and non-target species caught by purse seiners* [superseded by Resolution 13/11; then by Resolution 15/06]

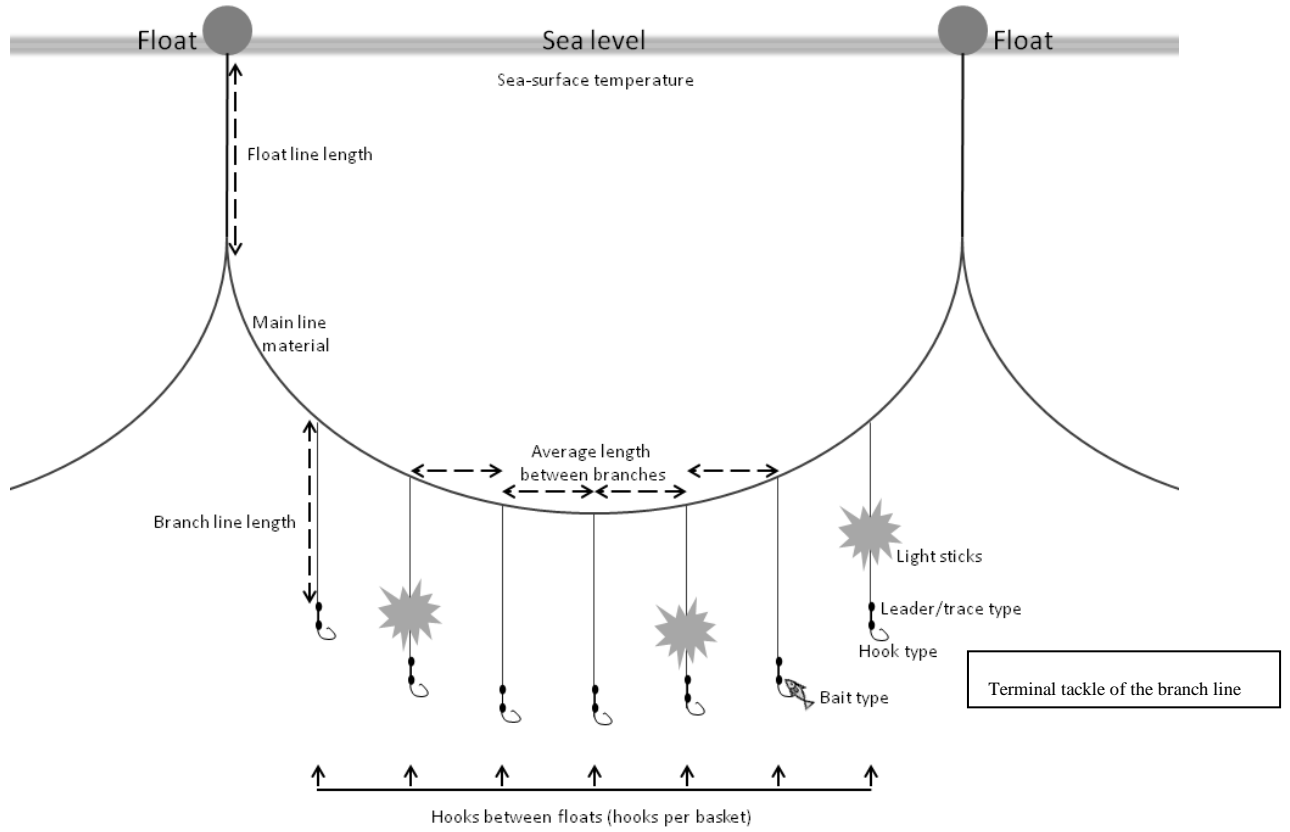


Figure 1. Longline (Gear Configuration): Average branch line length (meters): straight length in meters between snap and hook.

ANNEX III

Specifications for handline and trolling

Note: for all gears in this annex use the follow format for date and time

For date: when recording date of the set/shot/operation: record the YYYY/MM/DD

For time: record 24hr time as either the local time, GMT or national time and clearly specify which time has been used.

I - HANDLINE

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise, or month where daily operation

1.1 REPORT INFORMATION

1. Fishing day (or Date of submission of the logbook, where multiple fishing days)
2. Name of reporting person

1.2 VESSEL INFORMATION

1. Vessel name and registration number and IMO number, where available
2. IOTC number, where available
3. Fishing License number
4. Vessel size: Gross tonnage and/or length overall (in metres)

1.3 CRUISE INFORMATION

1. Departure date and port
2. Arrival date and port

2.1 OPERATION

1. Date of fishing

Record the date of fishing. Each fishing day should be recorded separately

2. Number of fishermen

Record the number of fishermen on the boat by fishing day

3. Number of Fishing Gear

Record the number of fishing lines used during the fishing day. If the exact number is not available a range may be used i) 5 or less lines, ii) 6–10 lines; iii) 11 or more lines

4. Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished

Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day

5. Position of the catch

Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc.) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port

Where information is recorded by day, record the 1° x 1° area(s) where fishing took place

6. Bait

Record the type of bait used (e.g. fish, squid), where applicable

2.2 CATCH

Catch in number and/or weight (kg) by species

1. Catch number and/or Weight

For each species shown in section 2.3 caught and retained, record the number and estimated live weight (kg), per fishing day

2. Discard number and/or Weight

For each species shown in section 2.3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3 SPECIES

Primary Species	FAO code
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT
Bigeye tuna (<i>Thunnus obesus</i>)	BET
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ
Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA
Black marlin (<i>Makaira indica</i>)	BLM
Other billfish	
Longtail tuna (<i>Thunnus tonggol</i>)	LOT
Kawakawa (<i>Euthynnus affinis</i>)	KAW
Frigate tuna/Bullet tuna (<i>Auxis</i> spp.)	FRZ
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	COM
Indo-Pacific king mackerel (<i>Scomberomorus guttatus</i>)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles (by number)	

2.4 REMARKS

- Other relevant information is also written in the remarks

Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery

II - TROLLING VESSELS

All logbook information shall be recorded by day; where more than one fishing event is recorded for the same day, it is advisable to record each fishing event separately

Record once in one cruise

1.1 REPORT INFORMATION

1. Fishing day (or Date of submission of the logbook, where multiple fishing days)
2. Name of reporting person

1.2 VESSEL INFORMATION

1. Vessel name and registration number and IMO number, where available
2. IOTC number, where available
3. Fishing License number
4. Vessel size: Gross tonnage and/or length overall (in metres)

1.3 CRUISE INFORMATION

1. Departure date and port
2. Arrival date and port

2.1 OPERATION

1. Date of fishing
Record the date of fishing. Each fishing day should be recorded separately
2. Number of fishermen
Record the number of fishermen on the vessel by fishing day
3. Number of Fishing Gear
Record the number of lines used during the fishing day. If the exact number is not available a range may be used i) 3 or less lines, ii) more than 3 lines
4. Number and type of school (Anchored or drifting FAD, marine mammal, free, other) fished
Record the number and type of school fished (i.e. anchored FAD, drifting FAD, marine mammal associated or free) fished during the day
5. Position of the catch
Position in latitude and longitude: either position at noon or position of start of gear or area code of operation (e.g. Seychelles EEZ, High seas, etc.) may be optionally used. Record the latitude and longitude at noon for non-fishing days, where not in port
Where information is recorded by day, record the 1° x 1° area(s) where fishing took place
6. Bait
Record the type of bait or indicate if lures are used

2.2 CATCH

Catch in number and/or weight (kg) by species

1. Number and/or Weight of fish retained

For each species shown in section 2–3 caught and retained, record the number or estimated live weight (kg), per fishing day

2. Discard number and/or Weight

For each species shown in section 2–3 caught and not retained record the number and estimated live weight (kg) discarded, per fishing day

2.3 SPECIES

Primary Species	FAO code
Yellowfin tuna (<i>Thunnus albacares</i>)	YFT
Bigeye tuna (<i>Thunnus obesus</i>)	BET
Skipjack tuna (<i>Katsuwonus pelamis</i>)	SKJ
Albacore (<i>Thunnus alalunga</i>)	ALB
Swordfish (<i>Xiphias gladius</i>)	SWO
Blue marlin (<i>Makaira nigricans</i>)	BUM
Black marlin (<i>Makaira indica</i>)	BLM
Striped marlin (<i>Tetrapturus audax</i>)	MLS
Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)	SFA
Other billfish	
Longtail tuna (<i>Thunnus tonggol</i>)	LOT
Kawakawa (<i>Euthynnus affinis</i>)	KAW
Frigate tuna/Bullet tuna (<i>Auxis</i> spp.)	FRZ
Narrow barred Spanish mackerel (<i>Scomberomorus commerson</i>)	COM
Indo-Pacific king mackerel (<i>Scomberomorus guttatus</i>)	GUT
Sharks	
Other fishes	
Rays	
Marine turtles	

2.4 REMARKS

1. Other relevant information is also written in the remarks

Note: These species included in the logbook are regarded as minimum requirement. Optionally other species should be added as species may differ depending on the area fished and type of fishery.

RESOLUTION 15/02

MANDATORY STATISTICAL REPORTING REQUIREMENTS FOR IOTC CONTRACTING PARTIES AND COOPERATING NON-CONTRACTING PARTIES (CPCs)

Keywords: Data reporting; total catch; catch and effort; size data; fish aggregating devices (FAD); surface fisheries; longline fisheries; coastal fisheries.

The Indian Ocean Tuna Commission (IOTC),

GIVEN that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

NOTING that the United Nations Food and Agricultural Organisation (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECALLING the commitment made by Contracting Parties under Article V of the IOTC Agreement to keep under review the conditions and trends of the stocks and to gather, analyse and disseminate scientific information, catch and effort statistics and other data relevant to the conservation and management of the stocks and to fisheries based on the stocks covered by the Agreement;

COGNISANT that the above commitment can only be achieved when Contracting Parties meet the requirements of Article XI of the IOTC Agreement i.e. to provide statistical and other data and information to minimum specifications and in a timely manner;

ACKNOWLEDGING that the IOTC Scientific Committee has repeatedly stressed the importance of the timeliness of data submissions;

GIVEN that the activities of support vessels and the use of Fish Aggregating Devices (FAD) are an integral part of the fishing effort exerted by the purse seine fleet;

CONSIDERING the provisions set forth in [Resolution 15/02](#) on *mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*, adopted by the Commission in 2015;

NOTING the Scientific Committee's concern that the lack of data from CPC fisheries under the mandate of the IOTC on the mortality of marine turtles and marine mammals undermines the ability to estimate levels of marine turtle and marine mammals bycatch and consequently the IOTC's capacity to respond and prevent adverse effects of fishing on these marine species;

FURTHER NOTING the Scientific Committee's concern about the impossibility to undertake assessments on the status of seabirds in the Indian Ocean, while acknowledging that some species are currently critically endangered, and that the lack of reporting of seabird interactions by CPCs seriously undermines the ability of IOTC to respond and prevent adverse effects of fishing on seabirds;

CONSIDERING the recommendations of the 17th Session of the IOTC Scientific Committee;

FURTHER CONSIDERING the call upon States, either individually, collectively or through regional fisheries management organisations and arrangements included in the United Nations General Assembly Resolution 67/79 on sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of fish aggregating devices and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and turtles;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall provide the following information to the IOTC Secretariat according to the timelines specified in paragraph 7:

2. **Total catch data:**

Estimates of the total catch by species and gear, if possible quarterly, that shall be submitted annually as referred in paragraph 7 (separated, whenever possible, by retained catches in live weight and by discards in live weight or numbers) for all species under the IOTC mandate as well as the most commonly caught elasmobranch species according to records of catches and incidents as established in [Resolution 15/01 on the recording of catch and effort data by fishing vessels in the IOTC area of competence](#) (or any subsequent superseding Resolution).

3. Concerning cetaceans, seabirds and marine turtles data should be provided as stated in Resolutions 13/04 [superseded by [Resolution 23/06](#)] on Conservation of Cetaceans, [Resolution 12/06](#) on reduction the incidental bycatch of seabirds in longline fisheries and [Resolution 12/04](#) on the conservation of marine turtles (or any subsequent superseding resolutions).

4. **Catch and effort data¹:**

a) **For surface fisheries:** catch weight by species and fishing effort shall be provided by 1° grid area and month strata. Purse seine and pole and line fisheries data shall be stratified by fishing mode (e.g. free swimming schools or schools in association with floating objects). The data shall be extrapolated to the total national monthly catches for each gear. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely. Effort units reported should be consistent with those effort requirements of [Resolution 15/01](#) (or any subsequent superseding revision).

b) **Longline fisheries:** catch by species, in numbers or weight, and effort as the number of hooks deployed shall be provided by 5° grid area and month strata. Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely. For the work of relevant working parties under the IOTC Scientific Committee, longline data should be of a resolution of 1° grid area and month or finer. These data would be for the exclusive use of IOTC Scientific Committee and its Working Parties, subject to the approval of the data owners and IOTC [Resolution 12/02 Data confidentiality policy and procedures](#), and should be provided for scientific use only in a timely fashion. Effort units reported should be consistent with those effort requirements of [Resolution 15/01](#) or any subsequent revision of such resolution.

c) **For coastal fisheries:** catches by species that shall be submitted annually as referred in paragraph 7, fishing gear and fishing effort shall be submitted frequently and may be provided using an alternative geographical area if it better represents the fishery concerned. Effort units reported should be consistent with those effort requirements of [Resolution 15/01](#) (or any subsequent superseding revision).

Provisions on catch and effort data, applicable to tuna and tuna-like species, shall also be applicable to the most commonly caught elasmobranch species according to records of catches and incidents as established in [Resolution 15/01 on the recording of catch and effort by fishing vessels in the IOTC area of competence](#) (or any subsequent superseding Resolution).

5. **Size data:**

Size data shall be provided for all gears and for all species according to paragraph 4 and following the guidelines set out by the procedures described in the *Guidelines for the reporting of fisheries statistics to the IOTC*. Size sampling shall be run under strict and well described random sampling schemes which are necessary to provide unbiased figures of the sizes taken. Sampling coverage shall be set to at least one fish measured by ton caught,

¹ Longline fisheries: Fisheries undertaken by vessels in the IOTC Record of Authorized Vessels that use longline gear.

Surface fisheries: All fisheries undertaken by vessels in the IOTC Record of Authorized Vessels other than longline fisheries; in particular purse seine, pole-and-line, gillnet fisheries, handline and trolling vessels.

Coastal fisheries: Fisheries other than longline or surface, as defined above, also called artisanal fisheries.

by species and type of fishery, with samples being representative of all the periods and areas fished. Alternatively, size data for longline fleets may be provided as part of the Regional Observer Scheme where such fleets have at least 5% observer coverage of all fishing operations. Length data by species, including the total number of fish measured, shall be submitted by a 5° grid area by month, by gear and fishing mode (e.g. free swimming schools or schools in association with floating objects for the purse seiners). Documents covering sampling and raising procedures shall also be provided, by species and type of fishery.

6. Given that the activities of purse seine supply vessels and the use of **Fish Aggregating Devices** (FAD) are an integral part of the fishing effort exerted by the purse seine fleet, the following data shall be provided by CPCs:
- a) The number and characteristics of purse seine supply vessels: (i) operating under their flag, (ii) assisting purse seine vessels operating under their flag, or (iii) licensed to operate in their exclusive economic zones, and that have been present in the IOTC area of competence;
 - b) Number of days at sea by purse seine and purse seine supply vessels by 1° grid area and month to be reported by the flag state of the supply vessel;
 - c) The total number set by the purse seine and purse seine supply vessels per quarter, as well as:
 - i. The positions, dates at the time of setting, FAD identifier and FAD type (i.e. drifting log or debris, drifting raft or FAD with a net, drifting raft or FAD without a net, anchored FADs and other FADs e.g. Payao, dead animal etc.);
 - ii. The FAD design characteristics of each FAD (consistent with Annex 1 to Resolution 15/08 *[superseded by Resolution 17/08, by Resolution 18/08 and then by Resolution 19/02] Procedures on a fishing aggregating devices (FADs) management Plan, including a limitation on the number of FADS, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*).

These data would be for the exclusive use of IOTC Scientific Committee and its Working Parties, subject to the approval of the data owners and in accordance with [Resolution 12/02](#) *Data confidentiality policy and procedures*, and should be provided in a timely fashion.

7. **Timeliness of data submission to the IOTC Secretariat:**

- a) Longline fleets operating in the high seas shall provide provisional data for the previous year no later than 30 June. Final data shall be submitted no later than 30 December;
 - b) All other fleets (including supply vessels) shall submit their final data for the previous year no later than 30 June;
 - c) In case where the final statistics cannot be submitted by that date, at least preliminary statistics should be provided. Beyond a delay of two years, all revisions of historical data should be formally reported and duly justified. These reports should be made on forms provided by the IOTC Secretariat and reviewed by the IOTC Scientific Committee. The IOTC Scientific Committee will advise the IOTC Secretariat if revisions are then accepted for scientific use.
8. This Resolution supersedes Resolution 10/02 on *mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPCs)*.

RESOLUTION 15/03

ON THE VESSEL MONITORING SYSTEM (VMS) PROGRAMME

Keywords: Vessel Monitoring System (VMS).

The Indian Ocean Tuna Commission (IOTC),

TAKING NOTE of the results of the Intersessional Meeting on an Integrated Control and inspection scheme, held in Yaizu, Japan, from 27 to 29 March, 2001;

RECOGNISING the value of satellite-based Vessel Monitoring Systems (VMS) for the Commission's conservation and management programmes, including compliance;

RECOGNISING IOTC Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 15/03] which called for the adoption of a pilot satellite-based vessel monitoring system (VMS) by 1st January 2004;

TAKING NOTE that the Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 15/03] has allowed the progressive incorporation of these systems to accommodate Contracting Parties that lack sufficient capacity for immediate implementation at a national level;

RECOGNISING that this Resolution 02/02 [superseded by Resolution 06/03 and subsequently by Resolution 15/03] provides a process for developing States of the region to build the capacity to implement this Resolution;

AWARE that many Parties have established VMS systems and programmes for their fleets and that their experience may be very helpful in supporting the conservation and management programmes of the Commission;

ADOPTS in accordance with the provisions of Article IX paragraph 1 of the IOTC Agreement, that:

1. Each Contracting Party and Cooperating Non-Contracting Party (CPC) shall adopt a satellite-based vessel monitoring system (VMS) for all vessels flying its flag 24 metres in length overall or above or in case of vessels less than 24 meters, those operating in waters outside the Economic Exclusive Zone of the Flag State fishing for species covered by the IOTC Agreement within the IOTC area of competence.
2. Those CPCs currently without a VMS for any additional vessel now meeting the criteria for inclusion in the VMS obligation since Resolution 06/03 was superseded, as defined in paragraph 1 above, shall submit an implementation plan to the Compliance Committee in April 2016 that sets out a phased approach to full implementation of their national VMS obligation within a maximum of 3 years, i.e. by April 2019, with at least 50% of all qualifying vessels compliant by September 2017.
3. Any CPC with vessels not yet equipped with VMS as already required under Resolution 06/03 (or any subsequent superseding Resolution) [superseded by Resolution 15/03] shall be required to fully implement its national VMS obligation within a maximum of 1 year, i.e. by April 2016 in respect of those vessels.
4. The Commission may establish guidelines for the registration, implementation and operation of VMS in the IOTC area of competence with a view to standardising VMS adopted by CPCs.
5. Information collected shall include:
 - a) the vessel identification;
 - b) the current geographical position of the vessel (longitude, latitude) with a position error which shall be less than 500 metres, at a confidence level of 99%; and
 - c) the date and time (expressed in UTC) of the fixing of the said position of the vessel.
6. Each CPC shall take the necessary measures to ensure that their land-based national Fisheries Monitoring Center

(FMC) receives through the VMS the information required in paragraph 5, and that the FMC is equipped with computer hardware and software enabling automatic data processing and electronic data transmission. Each CPC shall provide for backup and recovery procedures in case of system failures.

7. Each CPC shall ensure that the information in paragraph 5 is transmitted to the FMC at least once every 4 hours. Each CPC shall ensure the masters of fishing vessels flying its flag ensure that the satellite tracking device(s) are at all times fully operational.
8. Each CPC as a Flag State shall ensure that the vessel monitoring device(s) on board its vessels are tamper resistant, that is, are of a type and configuration that prevent the input or output of false positions, and that they are not capable of being over-ridden, whether manually, electronically or otherwise. To this end, the on-board satellite monitoring device must:
 - a) be located within a sealed unit; and
 - b) be protected by official seals (or mechanisms) of a type that will indicate whether the unit has been accessed or tampered with.
9. The responsibilities concerning the satellite-tracking devices and requirements in case of technical failure or non-functioning of the satellite-tracking devices are established in **Annex I**.
10. Fishing vessels referred to in paragraph 1 which are not yet equipped with VMS shall report to their FMC at least daily by email, facsimile, telex, telephone message or radio. Such reports must include, inter alia, information required in paragraph 5 when transmitting the report, to their competent authorities, as well as:
 - a) the geographic position at the beginning of the fishing operation;
 - b) the geographic position at the end of the fishing operation.
11. CPCs that cannot fulfil the obligations as outlined in this Resolution shall report to the IOTC Secretariat (i) the systems and infrastructure and capabilities existing with respect to the implementation this Resolution, and (ii) the hindrances for implementation of such a system and (iii) requirements for implementation.
12. Each CPC shall provide to the IOTC Secretariat, by 30 June each year, a report on the progress and implementation of its VMS programme in accordance with this Resolution. The IOTC Secretariat shall compile reports prior to the annual Session of the Commission and present a report to the IOTC Compliance Committee. Based on these reports, the Commission will discuss how best to proceed with future consideration of VMS to support its Conservation and Management Measures.
13. CPCs are encouraged to extend the application of this Resolution to their fishing vessels not provided for in paragraph 1 if they consider this to be appropriate to ensure the effectiveness of IOTC Conservation and Management Measures.
14. Resolution *06/03 On establishing a Vessel Monitoring System Programme* is superseded by this Resolution.

ANNEX I

RESPONSIBILITIES CONCERNING THE SATELLITE-TRACKING DEVICES AND REQUIREMENTS IN CASE OF TECHNICAL FAILURE OR NON-FUNCTIONING OF THE SATELLITE-TRACKING DEVICES

- A) In the event that a CPC has information to suspect that on-board vessel monitoring device(s) do not meet the requirements of paragraph 4, or have been tampered with, it shall immediately notify the IOTC Executive Secretary and the vessel's Flag State.
- B) Masters and owners/licensees of fishing vessels subject to VMS shall ensure that the vessel monitoring device(s) on board their vessels within the IOTC area of competence are at all times fully operational. Masters and owners/licensees shall in particular ensure that:
- VMS reports and messages are not altered in any way;
 - the antennae connected to the satellite monitoring device(s) are not obstructed in any way;
 - the power supply of the satellite monitoring device(s) is not interrupted in any way; and
 - the vessel monitoring device(s) are not removed from the vessel.
- C) A vessel monitoring device shall be active within the IOTC area of competence. It may, however, be switched off when the fishing vessel is in port for a period of more than one week, subject to prior notification to, and approval of, the Flag State, and if the Flag State so desires also to the IOTC Secretariat, provided that the first position report generated following the re-powering (activating) shows that the fishing vessel has not changed position compared to the last report.
- D) In the event of a technical failure or non-operation of the satellite tracking device fitted on board a fishing vessel, the device shall be repaired or replaced within one month. After this period, the master of a fishing vessel is not authorised to commence a fishing trip with a defective satellite tracking device. Furthermore, when a device stops functioning or has a technical failure during a fishing trip lasting more than one month, the repair or the replacement has to take place as soon as the vessel enters a port; the fishing vessel shall not be authorised to commence a fishing trip without the satellite tracking device having been repaired or replaced.
- E) In the event of a technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, the master or the owner of the vessel, or their representative, shall communicate immediately to the FMC of the Flag State, and if the Flag State so desires also to the IOTC Secretariat, stating the time that the failure or the non-functioning was detected or notified in accordance with paragraph F of this Annex. In the event of a technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, the master or the owner of the vessel, or their representative, shall also communicate to the FMC of the Flag State the information required in paragraph 5 of the Resolution every four hours, by email, facsimile, telex, telephone message or radio.
- F) When the Flag State has not received for 12 hours data transmissions referred to in paragraphs 7 of the Resolution and E of this Annex, or has reasons to doubt the correctness of the data transmissions under paragraphs 7 of the Resolution and E of this Annex, it shall as soon as possible notify the master or the owner or the representative thereof. If this situation occurs more than two times within a period of one year in respect of a particular vessel, the Flag State of the vessel shall investigate the matter, including having an authorised official check the device in question, in order to establish whether the equipment has been tampered with. The outcome of this investigation shall be forwarded to the IOTC Secretariat within 30 days of its completion.
- G) With regard to paragraphs E and F of this Annex, each CPC shall, as soon as possible but no later than two working days following detection or notification of technical failure or non-functioning of the vessel monitoring device on board the fishing vessel, forward the geographical positions of the vessel to the IOTC Secretariat, or shall ensure that these positions are forwarded to the IOTC Secretariat by the master or the owner of the vessel, or their representative.

RESOLUTION 15/09 ON A FISH AGGREGATING DEVICES (FADS) WORKING GROUP

Keywords: Fish aggregating device (FAD); working group on FADs; drifting FADs; anchored FADs; purse seine.

The Indian Ocean Tuna Commission (IOTC),

BEARING IN MIND that the Agreement for the implementation of the Provisions of the United Nations Convention on the Law of the Sea relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) encourages coastal States and fishing States on the high seas to collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort;

MINDFUL of the call upon States, either individually, collectively or through regional fisheries management organizations and arrangements in the United Nations General Assembly Resolution 67/79 on Sustainable fisheries to collect the necessary data in order to evaluate and closely monitor the use of large-scale fish aggregating devices and others, as appropriate, and their effects on tuna resources and tuna behaviour and associated and dependent species, to improve management procedures to monitor the number, type and use of such devices and to mitigate possible negative effects on the ecosystem, including on juveniles and the incidental bycatch of non-target species, particularly sharks and marine turtles;

NOTING that the United Nations Food and Agricultural Organization (FAO) Code of Conduct for Responsible Fishing provides that States should compile fishery-related and other supporting scientific data relating to fish stocks covered by subregional or regional fisheries management organisations and provide them in a timely manner to the organisation;

RECOGNISING that all gears deployed to target resources under the competence of IOTC should be managed to ensure the sustainability of fishing operations;

AWARE that the Commission is committed to adopt conservation measures to reduce juvenile Bigeye tuna and Yellowfin tuna mortalities from fishing effort on Fish Aggregating Devices (FADs);

AWARE that the availability of adequate information is fundamental to carrying out the objectives of the IOTC Agreement laid down in its Article V;

NOTING that the IOTC Scientific Committee advised the Commission to conduct an investigation of the feasibility and impacts of a temporary FAD closure as well as other measures in the context of Indian Ocean fisheries and stocks;

NOTING that the IOTC Scientific Committee recommended that an ad hoc working group on FADs, drifting and anchored, be created to assess the consequences of the increasing number and technological developments of FADs in tuna fisheries and their ecosystems, in order to inform and advise on future FAD-related management options;

NOTING that ICCAT and WCPFC have already approved at their 2014 sessions the establishment of FAD working groups, and that the SC agreed that at least the ICCAT and IOTC working groups on FADs work jointly whenever possible.

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. An ad hoc working group on FADs (**Annex I**), drifting and anchored, is created to assess the consequences of the increasing number and technological developments of FADs in tuna fisheries and their ecosystems, in order to inform and advise on future FAD-related management options. This ad hoc working group would be of multi-sectorial nature, involving various stakeholders such as scientists, fishery managers, fishing industry representatives, administrators and fishers. The working group shall deliver its findings in time for the 2017 IOTC Scientific Committee to examine them.
2. The IOTC Secretariat should liaise with the ICCAT Secretariat to determine if their FAD working group could work in conjunction with the IOTC working group.



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
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Annex I

Terms of reference for an ad hoc working group on fish aggregating devices (FADs)

- 1) The objectives of the ad hoc working group on Fish Aggregating devices (FADs) would be the following:
 - To collect and compile information about past and present numbers of buoys and FADs, changes in FAD-related technology and activities of supply vessels;
 - To review the requirements of collection of data on FADs established in Resolution 15/08 [**superseded by Resolution 17/08, by Resolution 18/08 and then by [Resolution 19/02](#)**] in order to assess the necessity for revision;
 - To assess the effect of FAD's density and spatial distribution on the behaviour, distribution and species composition of the tuna schools;
 - To assess the developments in FAD-related technology notably with regards to:
 - changes in catchability due to technological improvement;
 - using FAD and buoys marking and identification as a tool for monitoring, tracking and control of FADs;
 - reducing FAD's ecological impacts through improved design, such as non-entangling FADs and biodegradable material.
 - To evaluate ways to improve the use of information related to FADs in the process of stock assessment, particularly in the standardisation of catch per unit effort, and in ecological risk assessment for non-target species;
 - Through an active exchange of views, to identify management options, including the regulation of deployment limits and characteristics of FADs, and activities of support vessels;
 - To assess the consequences of these management options, in conjunction with other fleets fishing mortality components, on IOTC-managed species and on the pelagic ecosystems.
- 2) All types of FADs, anchored or drifting, would be considered in the ad hoc working group.
- 3) As several coastal states with limited capacities are primarily concerned by anchored FADs, the IOTC Secretariat should ensure that special provisions be made for those countries in terms of compiling and assimilating the data as required for the ad hoc working group. This support could be included in the data collection tasks of the IOTC Secretariat.
- 4) The IOTC Secretariat should consider using the meeting participation fund (MPF) to facilitate the participation of scientists from IOTC coastal states who would contribute significantly in the FAD working group.
- 5) The access to data used for the FAD working group will follow the confidentiality policy and procedures presented in [Resolution 12/02](#) (or any subsequent superseding Resolution).
- 6) The ad hoc Working Group should be composed by scientists, fisheries managers, fishing industry Representatives, administrators and other interested stakeholders.
- 7) The ad hoc Working Group on FAD would not happen more than once a year, and shall report on its work to the WPTT and WPEB annual sessions.
- 8) The IOTC, at its annual session, will review the progress and outcomes of the FAD working group and will decide on the necessity for its continuation.

RESOLUTION 15/10

ON TARGET AND LIMIT REFERENCE POINTS AND A DECISION FRAMEWORK

Keywords: Limit reference points, management strategy evaluation, Kobe plot, maximum sustainable yield.

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING the objectives of the Commission are to maintain stocks in perpetuity and with high probability, at levels not less than those capable of producing their maximum sustainable yield as qualified by relevant environmental and economic factors including the special requirements of developing States in the IOTC area of competence;

BEING MINDFUL of Article XVI of the IOTC Agreement regarding the rights of Coastal States and of Article 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;

RECALLING that Article 6, paragraph 3, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of precautionary reference points as a general principle for sound fisheries management;

FURTHER RECALLING that Annex II of UNFSA provides guidelines for the application of precautionary reference points in the conservation and management of straddling fish stocks and highly migratory fish stocks, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that the Scientific Committee noted that the interim limit reference points contained in Resolution 13/10 **[superseded by Resolution 15/10]** are not consistent with FAO and UNFSA guidelines;

NOTING that Article 7.5.3 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of stock specific target and limit reference points, *inter alia*, on the basis of the precautionary approach;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01 **[superseded by Resolution 16/03]**, indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach including, *inter alia*, precautionary reference points, as set forth in the UNFSA;

NOTING [Resolution 12/01](#) *On the implementation of the precautionary approach* that recommends adoption of provisional reference points, and that the IOTC Scientific Committee proposed provisional values at its 14th Session;

RECALLING ALSO that the IOTC Scientific Committee commenced a process leading to a management strategy evaluation (MSE) process to improve upon the provision of scientific advice on Harvest Control Rules (HCRs);

HIGHLIGHTING that the IOTC Scientific Committee is now in a position to provide advice on stock status relative to reference points for several stocks of tropical, temperate or neritic tunas and billfish;

FURTHER NOTING that the IOTC Scientific Committee at its 17th Session made recommendations on possible alternates to limit and target reference points derived from B_{MSY} and F_{MSY} , when those are considered as insufficiently robust, that are derived from proportions of B_0 , being the estimated virgin biomass;

FURTHER NOTING the Scientific Committee also recommended that in cases where MSY-based reference points cannot be robustly estimated, biomass limit reference points be set at 20 % of the virgin biomass ($B_{LIM}=0.2 B_0$).

ACKNOWLEDGING that continuing dialog between scientists and managers is necessary to define appropriate HCRs for the IOTC tuna and tuna-like stocks;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

Interim Target and Limit Reference Points (TRPs and LRPs)

- When assessing stock status and providing recommendations to the Commission, the IOTC Scientific Committee should, where possible, apply MSY-based target and limit reference points for tuna and tuna-like species and in particular the interim reference points agreed by the Commission in 2013 for albacore, swordfish and the three (3) tropical tunas (Bigeye tuna, Skipjack tuna, Yellowfin tuna) (per Resolution 13/10 *On interim target and limit reference points and a decision framework*) [superseded by Resolution 15/10]), as listed in **Table 1**. B_{MSY} refers to the biomass level for the stock that would produce the Maximum Sustainable Yield; F_{MSY} refers to the level of fishing mortality that produces the Maximum Sustainable Yield.

Table 1. Interim target and limit reference points.

Stock	Target Reference Point	Limit Reference Point
Albacore		
Yellowfin tuna	$B_{TARGET} = B_{MSY}$;	$B_{LIM} = 0.40 B_{MSY}$
Swordfish	$F_{TARGET} = F_{MSY}$	$F_{LIM} = 1.40 F_{MSY}$
Bigeye tuna	$B_{TARGET} = B_{MSY}$	$B_{LIM} = 0.50 B_{MSY}$
	$F_{TARGET} = F_{MSY}$	$F_{LIM} = 1.30 F_{MSY}$
Skipjack tuna	$B_{TARGET} = B_{MSY}$	$B_{LIM} = 0.40 B_{MSY}$
	$F_{TARGET} = F_{MSY}$	$F_{LIM} = 1.50 F_{MSY}$

Alternate interim Target and Limit Reference Points

- Where the IOTC Scientific Committee considers that MSY-based reference points cannot be robustly estimated, biomass limit reference points will be set at a rate of B_0 . Unless the IOTC Scientific Committee advises the Commission of more suitable limit reference point for a particular species, by default, the interim B_{LIM} will be set at $0.2 B_0$ and fishing mortality rate limit reference point at $F_{0.2 B_0}$ (the value corresponding to this biomass limit reference point). These interim limit reference points will be reviewed no later than 2018.
- Where the IOTC Scientific Committee considers that MSY-based reference points cannot be robustly estimated, target reference points based on the depletion proportion (i.e. reference points with respect to the ratio of current biomass to B_0 , B_0 being the virgin biomass estimate) should be used as a basis for B_{TARGET} and F_{TARGET} , as follows:
 - the interim biomass target reference point B_{TARGET} could be set at a ratio of B_0 , the virgin biomass;
 - the interim fishing mortality rate target reference point F_{TARGET} could be set at a level consistent with the target biomass reference point, the fishing mortality rate corresponding then to the adopted ratio of B_0 , the virgin biomass).
- These target and limit reference points, referred to in paragraphs 1, 2 and 3, shall be further reviewed by the IOTC Scientific Committee according to the program of work at **Annex 1** and in accordance with paragraph 6. The results shall be presented to the Commission for adoption of species-specific reference points.
- The IOTC Scientific Committee shall continue to provide advice on the status of stocks and on recommendations for management measures in relation to the reference points referred to in paragraphs 1, 2 and 3, where available, until the Commission adopts other reference points that achieve the IOTC's conservation and management objectives and are consistent with paragraph 6.
- The IOTC Scientific Committee shall recommend to the Commission for its consideration options for harvest control rules for IOTC species in relation to agreed reference points and, in doing so, shall take into account:
 - the provisions set forth in the UNFSA and in Article V of the IOTC Agreement;

- b) the following objectives and any other objective identified through the Science and Management Dialogue process designed in Resolution 14/03 [superseded by [Resolution 16/09](#)] (or any revision thereof) and agreed thereafter by the Commission:
- i. Maintain the biomass at or above levels required to produce MSY or its proxy and maintain the fishing mortality rate at or below F_{MSY} or its proxy;
 - ii. Avoid the biomass being below B_{LIM} and the fishing mortality rate being above F_{LIM} ;
- c) the following guidelines:
- i. For a stock where the assessed status places it within the lower right (green) quadrant of the Kobe Plot, aim to maintain the stock with a high probability within this quadrant;
 - ii. For a stock where the assessed status places it within the upper right (orange) quadrant of the Kobe Plot, aim to end overfishing with a high probability in as short a period as possible;
 - iii. For a stock where the assessed status places it within the lower left (yellow) quadrant of the Kobe plot, aim to rebuild these stocks in as short a period as possible;
 - iv. For a stock where the assessed status places it within the upper left quadrant (red), aim to end overfishing with a high probability and to rebuild the biomass of the stock in as short a period as possible.

Final Clauses

7. Bearing in mind Article 64 of UNCLOS and Article 8 of UNFSA, the entirety of this Resolution is subject to Article XVI (Coastal States' Rights) of the IOTC Agreement for the Establishment of the Indian Ocean Tuna Commission, and Articles 87 and 116 of the UN Convention of the Law of the Sea regarding the right to fish on the high seas;
8. The IOTC Scientific Committee is requested to evaluate the performance of any harvest control rules with respect to the species specific target and limit reference points adopted for IOTC species, but not later than 10 years following their adoption, and the Commission will consider, as appropriate and consistent with the scientific advice, these harvest control rules.
9. As soon as advice from the IOTC Scientific Committee regarding the appropriateness of TRPs and LRPs, as required under **Annex 1**, is available to the Commission, and where possible no later than at the IOTC Commission meeting in 2020, this Resolution will be reviewed with the view to adopting revised TRPs and LRPs.
10. This Resolution supersedes Resolution 13/10 *On interim target and limit reference points and a decision framework*.

Annex 1

Development and Assessment of Target (TRPs) and Limit Reference Points (LRPs), Harvest Control Rules (HCRs) through Management Strategies Evaluation (MSE) – Program of Work

1. The IOTC Scientific Committee is requested to assess the appropriateness of the limit reference points (LRP) and target reference points (TRP) referred to in paragraphs 1, 2 and 3 of the Resolution 15/10, where relevant, and other reference points based on the guidelines of UNFSA taking into account:
 - a) the nature of these reference points – target or limit,
 - b) the best scientific knowledge on population dynamics and on life-history parameters,
 - c) all fisheries exploiting the stock, and
 - d) major sources of uncertainty.
2. The IOTC Scientific Committee is requested to develop and assess, through the management strategy evaluation (MSE) process, the performance of Harvest Control Rules (HCRs), to achieve Target Reference Points (TRPs) on average and avoid the Limit Reference Points (LRPs) with a high probability taking into account the levels of uncertainty in the stock assessments for the priority species listed in point 4. To that end the following activities shall be carried out:
 - a) The IOTC Scientific Committee is requested to assess the robustness and the performance of the HCRs in relation to:
 - i. the TRPs and LRPs specified in [Resolution 15/10](#); and
 - ii. alternative candidate TRPs and LRPs, as identified through Science and Management Dialogue processes as laid down in Resolution 14/03 ~~[superseded by [Resolution 16/09](#)]~~.
 - b) The IOTC Scientific Committee is requested to provide a range of potential performance statistics to allow the Commission to evaluate the alternative candidate HCRs and alternative LRPs/TRPs.
3. When evaluating candidate HCRs for species identified in point 4a and 4b, the IOTC Scientific Committee will be requested to provide advice regarding the probability of the biomass being:
 - a) at or below the biomass LRP;
 - b) at or above the biomass TRP.
4. The initial assessment described in points 2 and 3 shall be completed, where possible, for:
 - a) Albacore and Skipjack tuna by the Scientific Committee in 2015 for presentation to the Commission meeting in 2016.
 - b) Assessments for Yellowfin tuna, Bigeye tuna and swordfish to be completed by 2017 and presented to the Commission meeting in 2018.



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ACTIVE CMMs ADOPTED AT THE EIGHTEENTH SESSION OF THE IOTC

2014

RESOLUTION 14/01

ON THE REMOVAL OF OBSOLETE CONSERVATION AND MANAGEMENT MEASURES

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the desirability of improving the coherence, interpretation and accessibility of its Conservation and Management Measures;

NOTING the concerns raised by some CPCs during the Fifteenth Session of the Commission that many coastal States are not yet able to fully implement many of the Conservation and Management Measures adopted by the Commission;

ALSO NOTING the intent of Resolution 11/01 [superseded by Resolution 14/01] *Regarding consolidation of IOTC Resolutions and recommendations*;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The following Conservation and Management Measures previously adopted by the Commission shall be revoked since they are considered to have been fulfilled or are obsolete, as they have been replaced without being superseded or are no longer relevant to the conservation and management of tuna and tuna-like species in the Indian Ocean:

Recommendations:

- a) Recommendation 01/01 *Concerning the national observer programmes for tuna fishing in the Indian Ocean*
- b) Recommendation 02/06 *On the implementation of the Resolution concerning the IOTC Record of Vessels*
- c) Recommendation 03/04 *Concerning enhancement of effectiveness of IOTC measures to eliminate IUU activities in the IOTC area*
- d) Recommendation 03/05 *Concerning trade measures*
- e) Recommendation 03/06 *Recommendation to commission a report on management options for tuna and tuna-like species*
- f) Recommendation 05/06 *Concerning the terms of references for an IOTC Working Party on Management Options*
- g) Recommendation 02/07 *Concerning measures to prevent the laundering of catches by IUU large-scale tuna longline fishing vessels*

Resolutions:

- a) Resolution 98/03 *On southern bluefin tuna*
- b) Resolution 99/01 *On the management of fishing capacity and on the reduction of the catch of juvenile Bigeye tuna by vessels, including flag of convenience vessels, fishing for tropical tunas in the IOTC area of competence*
- c) Resolution 99/03 *On the elaboration of a control and inspection scheme for IOTC*
- d) Resolution 00/01 *On compliance with mandatory statistical requirements for IOTC Members and requesting Cooperation with Non-Contracting Parties*

- e) Resolution 00/02 *On a survey of predation of longline caught fish*
 - f) Resolution 01/04 *On limitation of fishing effort of non members of IOTC whose vessels fish Bigeye tuna*
 - g) Resolution 01/07 *Concerning the support for the IPOA-IUU plan*
 - h) Resolution 02/08 *On the conservation of Bigeye and Yellowfin tuna in the Indian Ocean*
 - i) Resolution 03/07 *Recognising the contributions of David Ardill*
 - j) Resolution 11/01 *Regarding consolidation of IOTC Resolutions and Recommendations*
2. The following Conservation and Management Measures previously adopted by the Commission are considered to be of a procedural or administrative nature and shall be incorporated into the IOTC Rules of Procedure:
- a) Resolution 98/05 *On Cooperation With Non-Contracting Parties*
 - b) Resolution 02/09 *Establishment of the Standing Committee on Administration and Finance (SCAF)*
 - c) Resolution 03/02 *On criteria for attaining the status of Cooperating Non-Contracting Party*
 - d) Resolution 10/05 *On the establishment of a meeting participation fund for developing IOTC Members and Non-Contracting Cooperating Parties (CPCs)*
 - e) Resolution 10/09 *Concerning the functions of the Compliance Committee*
3. This Resolution supersedes Resolution 13/01 *On the removal of obsolete Conservation and Management Measures* as well as the Conservation and Management Measures detailed in paragraphs 1 and 2.

RESOLUTION 14/02
FOR THE CONSERVATION AND MANAGEMENT OF TROPICAL TUNAS STOCKS IN THE IOTC AREA
OF COMPETENCE

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING that based on past experience in the fishery, the potential production from the resource can be negatively impacted by excessive fishing effort;

TAKING INTO ACCOUNT the available scientific information and advice, in particular the IOTC Scientific Committee conclusions whereby the Yellowfin tuna stock might have been over or fully exploited and the Bigeye tuna stock may have been fully exploited in recent years; RECOGNISING that during the 12th IOTC scientific meeting held in Seychelles from 30 November to 04 December 2009, the IOTC Scientific Committee recommended that Yellowfin tuna and Bigeye tuna catches should not exceed the MSY levels which have been estimated at 300,000 tonnes for Yellowfin tuna and at 110,000 tonnes for Bigeye tuna;

ACKNOWLEDGING that the implementation of a TAC without a quota allocation would result in an inequitable distribution of the catches and fishing opportunities among the IOTC Members and Cooperating Non-Contracting Parties (CPCs) and non-CPCs;

FURTHER RECOGNISING that the tuna artisanal fisheries sector needs strengthening in terms of catch statistics reporting in order to more closely follow the catch situations and notwithstanding improvement in the industrial fishery catch statistics reporting requirements;

NOTING the importance of applying the precautionary approach for the management of the tropical tuna and swordfish stock, in particular Yellowfin tuna and Bigeye tuna in the Indian Ocean;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. CPCs shall implement the following action plan:
 - a) Establishment of an allocation system (Quota) or any other relevant measures based on the IOTC Scientific Committee recommendations for the main targeted species under the IOTC competence;
 - b) Advise on the best reporting requirement of the artisanal tuna fisheries and implementation of an appropriate data collection system.
2. This Resolution supersedes Resolution 12/13 *For the conservation and management of tropical tunas stocks in the IOTC area of competence.*

RESOLUTION 14/05
**CONCERNING A RECORD OF LICENSED FOREIGN VESSELS FISHING FOR IOTC SPECIES IN THE
IOTC AREA OF COMPETENCE AND ACCESS AGREEMENT INFORMATION**

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING that coastal States have sovereign rights in a 200-nautical mile Exclusive Economic Zone (EEZ) with respect to their natural resources;

CONSCIOUS of the provisions of Article 62 of the United Nations Convention on the Law of the Sea;

NOTING that the information on vessels licensed to fish in the EEZ of IOTC Contracting Parties and Cooperating Non-Contracting Parties (collectively, CPCs), constitutes a means to identify potential unreported fishing activities;

MINDFUL of the recommendation 17 of the Performance Review Panel, as listed in Resolution 09/01 **[superseded by Resolution 16/03]** *on the performance review follow-up*, that the obligation incumbent to a flag State to report data for its vessels be included in a separate Resolution from the obligation incumbent on Members to report data on the vessels of third countries they licence to fish in their EEZs;

AWARE of the data reporting requirements for all CPCs and the importance of complete statistical reporting to the work of the IOTC Scientific Committee, its Working Parties and the Commission;

MINDFUL of the need to ensure transparency among CPCs, in particular to facilitate joint efforts to combat illegal, unreported, and unregulated fishing;

RECALLING the duties of CPCs concerning IUU fisheries as stated in the Resolution 11/03 **[superseded by Resolution 17/03 then by Resolution 18/03]** *establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC area of competence* which requires CPCs to ensure that their vessels do not conduct fishing activities within areas under the national jurisdiction of other States without authorisation and/or infringe the coastal State's laws and Resolutions;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

PRIVATE ACCESS AGREEMENTS:

1. All CPCs which issue licenses to foreign flag vessels to fish in their EEZ for species managed by the IOTC in the IOTC area of competence (hereinafter referred to as “the Area”), shall submit to the IOTC Executive Secretary, by 15 February every year, a list of all foreign flag vessels to which such licences have been issued during the previous year.
2. This list shall contain the following information for each vessel:
 - a) IOTC Number;
 - b) Name and registration number;
 - c) IMO number (if eligible);
To allow the necessary time to obtain an IMO number for eligible vessels that do not already have one, paragraph 2.c on IMO number is effective as of 1 January 2016. As of this date, CPCs shall ensure that all the fishing vessels that are registered on the IOTC Record of licenced fishing vessels have IMO numbers issued to them. Paragraph 2.c on IMO number does not apply to vessels which are not eligible to receive IMO numbers.
 - d) The flag at the time of issuing the licence;
 - e) International radio call sign (if any);

- f) Vessel type, length, and gross tonnage (GT);
- g) Name and address of owner, and/or charterer and/or operator;
- h) Main target species; and
- i) Period of licence.

In assessing compliance with the paragraph above, the Commission shall take into account exceptional circumstances in which a vessel owner is not able to obtain an IMO number despite following the appropriate procedures. The CPC which has issued the licence to this vessel shall report any such exceptional situation to the IOTC Secretariat.

GOVERNMENT TO GOVERNMENT ACCESS AGREEMENTS:

3. In cases where coastal CPCs allow foreign-flagged vessels to fish in waters in their EEZ in the IOTC Area for species managed by IOTC through a Government to Government access agreement, CPCs involved in the referred agreement shall submit jointly to the IOTC Executive Secretary the information concerning these agreements, including:
 - a) The CPCs involved in the agreement;
 - b) The time period or periods covered by the agreement;
 - c) The number of vessels and gear types authorised;
 - d) The stock or species authorised for harvest, including any applicable catch limits;
 - e) The CPC's quota or catch limit to which the catch will be applied, where applicable;
 - f) Monitoring, control, and surveillance measures required by the flag CPC and coastal CPC involved;
 - g) Data reporting obligations stipulated in the agreement, including those between the parties involved, as well as those regarding information that must be provided to the Commission;
 - h) A copy of the written agreement.
4. For agreements in existence prior to the entry into force of this Resolution, the information specified in paragraph 3 shall be provided, at the least, 60 days in advance of the 2013 Commission meeting.
5. When an access agreement is modified in a manner that changes any of the information specified in paragraph 3, these changes shall be promptly notified to the IOTC Executive Secretary.

COMMON PROVISIONS FOR ACCESS AGREEMENTS:

6. The CPCs shall notify the ship owner and flag State concerning foreign flagged fishing vessels that requested a license under a private access agreement or under a government to government access agreement and for which the request of license was denied. If the reason for denial is related to an infringement of IOTC CMMs, the IOTC Compliance Committee shall address the issue at the next session accordingly.
7. All CPCs which issue licenses to foreign flag vessels to fish in their EEZs for species managed by the IOTC in the IOTC Area, under a private access agreement or under a government to government access agreement, shall submit to the IOTC Executive Secretary within two (2) months of the entry into force of this Resolution a template of the official coastal State fishing License and translated version in one of the official Languages of the IOTC, with:
 - a) The terms and conditions of the coastal State fishing license;
 - b) The name of the Competent Authority;
 - c) The name and contact of the personnel of the Competent Authority;

- d) The signature of the personnel of the Competent Authority;
- e) The official stamp(s) of the Competent Authority.

The IOTC Executive Secretary shall publish the template of the coastal State fishing license and the above information in a secure part of the IOTC website for MCS purposes. The information mentioned in subparagraph b) to e) must be provided in the form of the **Annex I**.

- 8. When a coastal State fishing license is modified in a manner that changes the template, any of the information provided in it or the information provided in a) to e) of paragraph 7, these changes shall be promptly notified to the IOTC Executive Secretary.
- 9. The IOTC Secretariat shall report the information specified in this Resolution annually to the Commission at its annual meeting.
- 10. This Resolution shall be consistent with domestic confidentiality requirements of the coastal CPC and the flag CPC concerned.
- 11. This Resolution supersedes Resolution 13/07 *Concerning A Record Of Licensed Foreign Vessels Fishing For IOTC Species In The IOTC Area Of Competence And Access Agreement Information*.

ANNEX I

COMPLEMENTARY INFORMATION

Coastal State Fishing licence

Country:	
Name of the Competent Authority as stated in the Authorisation To Fish (ATF):	
Address of the Competent Authority:	
Name and contact of personnel of the Competent Authority (email, telephone, fax):	
Signature of the personnel of the Competent Authority:	
Government seal used on the fishing licence:	

RECOMMENDATION 14/07

TO STANDARDISE THE PRESENTATION OF SCIENTIFIC INFORMATION IN THE ANNUAL SCIENTIFIC COMMITTEE REPORT AND IN WORKING PARTY REPORTS

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the importance of sound scientific advice as the centre piece for the conservation and management of tuna and tuna-like species in the Indian Ocean and adjacent seas in line with international law and the information needs of the Commission;

NOTING that participants of the first Global Summit of Tuna RFMOs in 2007 in Kobe, Japan agreed that stock assessment results be presented in a standardised "four quadrant, red-yellow-green-orange" format that is now referred as the "Kobe Plot" which is widely embraced as a practical, user-friendly method to present stock status information;

FURTHER NOTING that, at the Second Joint Meeting of Tuna RFMOs in June 2009 in San Sebastian, Spain, a "Strategy Matrix" was adopted to provide fisheries managers with the statistical probability of meeting management targets, including ending overfishing and rebuilding overfished stocks, in a standardised manner as a result of potential management actions;

ACKNOWLEDGING that the Strategy Matrix is a harmonised format for RFMO science bodies to convey advice, and that this format for presenting stock assessment results facilitates the application of the precautionary approach by providing Commissions with the basis to evaluate and adopt management options at various levels of probability of success;

RECALLING recommendations of the Kobe II Workshop of Experts to Share Best Practices on the Provision of Scientific Advice and of the Kobe III recommendations, in particular on development on research activities to better quantify the uncertainty and understand how this uncertainty is reflected in the risk assessment inherent in the Kobe II strategy matrix;

FURTHER RECALLING the provisions of the [Recommendation 12/15](#) on the best available science, that requests the provision of clear, transparent, and standardised formats for scientific advice delivered to the Commission;

TAKING INTO ACCOUNT that [Resolutions 12/01](#) on the implementation of the precautionary approach and 13/10 [superseded by [Resolution 15/10](#)] on target and limit reference points and a decision framework, make possible the implementation of the precautionary approach thanks to the adoption of interim target and limit reference points;

NOTING the excellent work to date by the Scientific Committee, its working parties and the IOTC Secretariat to standardise the presentation of scientific information in their annual reports, including via the 'Executive Summaries' for each stock;

STRESSING the importance of further refining the presentation of scientific information to facilitate appropriate utilisation by the Commission;

RECOMMENDS, in accordance with paragraph 8 of Article IX of the IOTC Agreement, that:

1. In support of the scientific advice made available by the IOTC Scientific Committee, the 'Executive Summaries' within the annual IOTC Scientific Committee report which present stock assessment results, include when possible:

Stock status

- a) A Kobe plot/chart showing:
 - i. Any Target and Limit Reference Points adopted by the Commission, e.g. F_{MSY} and F_{LIM} , SB_{MSY} and SB_{LIM} or B_{MSY} and B_{LIM} , depending on the assessment models used by the Scientific Committee, or proxies where available;
 - ii. The stock estimates, expressed in reference to Target Reference Points adopted by the Commission, e.g. as $F_{CURRENT}$ on F_{MSY} and as $SB_{CURRENT}$ on SB_{MSY} or as $B_{CURRENT}$ on B_{MSY} ;
 - iii. The estimated uncertainty around estimates, provided that statistical methods to do so have been agreed upon the Scientific Committee and that sufficient data exist;

- iv. The stock status trajectory.
- b) A graphical representation showing the proportion of model outputs of the years used for advice from the last stock assessment that are within the green quadrant of the Kobe plot/chart (not overfished, not subject to overfishing), the yellow and orange quadrants (overfished or subject to overfishing) and the red quadrant (overfished and subject to overfishing).

Model outlooks

- c) Two Kobe II strategy matrices:
 - i. A first one indicating the probability of complying with the Target Reference Points adopted by the Commission, e.g. the probability of either $SB > SB_{MSY}$ or $B > B_{MSY}$ and of $F < F_{MSY}$ for different levels of catch across multiple years;
 - ii. A second one indicating the probability of being inside safe biological limits expressed through Limit Reference Points adopted by the Commission, e.g. the probability of either $SB > SB_{LIM}$ or $B > B_{LIM}$ and of $F < F_{LIM}$ for different levels of catch across multiple years;
 - iii. When the Commission agrees on acceptable probability levels associated with the target and limit reference points on a stock by stock basis, the Scientific Committee could prepare and include, in the annual report, the Kobe II strategy matrices using colour coding corresponding to these thresholds.

Data quality and limitations of the assessment models

- d) A statement qualifying the quality, the reliability and where relevant the representativeness of input data to stock assessments, such as, but not limited to:
 - i. Fisheries statistics and fisheries indicators (e.g. catch and effort, catch-at size and catch at age matrices by sex and, when applicable, fisheries dependent indices of abundance);
 - ii. Biological information (e.g. growth parameters, natural mortality, maturity and fecundity, migration patterns and stock structure, fisheries independent indices of abundance);
 - iii. Complementary information (e.g. consistencies among available abundance indices, influence of the environmental factors on the dynamic of the stock, changes in fishing effort distribution, selectivity and fishing power, changes in target species).
- e) A statement qualifying the limits of the assessment model with respect to the type and the quality of the input data and expressing the possible biases in the assessment results associated with uncertainties of the input data;
- f) A statement concerning the reliability of the projections carried out over the long term.

Alternative approach (data poor stocks)

- 2. When, due to data or modelling limitations, the IOTC Scientific Committee is unable to develop Kobe II strategy matrices and associated charts or other estimates of current status relative to benchmarks, the IOTC Scientific Committee will develop its scientific advice on available fisheries-dependant and fisheries-independent indicators and provide similar caveats as those detailed in paragraph 1(d).

Additional information and review of the structure and templates of the 'Executive Summaries'

- 3. The Commission encourages the IOTC Scientific Committee to include either in its annual report or in the detailed reports, where possible and if considered as relevant and useful, any other tables and/or graphics supporting scientific advice and management recommendations. In particular, the IOTC Scientific Committee will include, where possible, information on the recruitment trajectories, on the stock-recruitment relationship and some ratio such as yield per recruit or biomass per recruit.
- 4. As far as needed, the IOTC Scientific Committee shall review recommendations and templates for the Kobe II strategy matrices, plot and graphical representations as laid down in this Recommendation and will advise the Commission on possible improvements.



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ACTIVE CMMs ADOPTED AT THE SEVENTEENTH SESSION OF THE IOTC

2013

RESOLUTION 13/05 ON THE CONSERVATION OF WHALE SHARKS (*RHINCODON TYPUS*)

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING [Resolution 12/01](#) *On the Implementation of the Precautionary Approach* calls on IOTC Contracting Parties and Cooperating Non-Contracting Parties to apply the precautionary approach when managing tuna and tuna-like species in accordance with Article V of the United Nations Fish Stocks Agreement;

RECOGNISING the ecological and cultural significance of whale sharks in the Indian Ocean;

MINDFUL that whale sharks are particularly vulnerable to exploitation including from fishing;

CONCERNED about the possible impacts of purse seine fishing operations on the sustainability of whale sharks;

ACKNOWLEDGING that under Resolution 10/02 [superseded by [Resolution 15/02](#)] *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPC's)*, paragraph 3: 'the provisions, applicable to tuna and tuna-like species, shall also be applicable to the most commonly caught shark species and, where possible, to the less common shark species';

CONCERNED by the lack of complete and accurate data reporting concerning fishing activities on non-target species;

NOTING that the IOTC Working Party on Ecosystems and Bycatch (WPEB) noted paper IOTC–2011–WPEB07–08 that reviewed the status of the information available on non-target species associated with IOTC fisheries; recommended that Resolution 10/02 [superseded by [Resolution 15/02](#)] be revised to include whale sharks in a list of the most commonly caught elasmobranch species for which nominal catch data shall be reported as part of the statistical requirements for IOTC CPCs;

FURTHER NOTING that the WPEB noted paper IOTC–2011–WPEB07–08, paragraph 163: 'recommended that the recommendations from the KOBE bycatch technical working group are considered to encourage research and development of best practice with regard to setting nets on whale sharks to determine the impacts of the practice' and that the WPEB also recommended developing best practice methods for extraction of whale sharks from purse seine nets through direct collaboration with the Western and Central Pacific Fisheries Commission;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. This measure shall apply to all fishing vessels flying the flag of a CPC and on the IOTC Record of Fishing Vessels or authorised to fish for tuna and tuna-like species managed by the IOTC on the high seas. The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective EEZ.
2. Contracting Parties and Cooperating Non-Contracting Parties (collectively, CPCs) shall prohibit their flagged vessels from intentionally setting a purse seine net around a whale shark in the IOTC area of competence, if it is sighted prior to the commencement of the set.
3. CPCs shall require that, in the event that a whale shark is unintentionally encircled in the purse seine net, the master of the vessel shall:
 - a) take all reasonable steps to ensure its safe release, while taking into consideration the safety of the crew. These steps shall follow the best practice guidelines for the safe release and handling of whale sharks developed by the IOTC Scientific Committee;
 - b) report the incident to the relevant authority of the flag State, with the following information:
 - i. the number of individuals;
 - ii. a short description of the interaction, including details of how and why the interaction occurred, if possible;
 - iii. the location of the encirclement;

- iv. the steps taken to ensure safe release;
 - v. an assessment of the life status of the animal on release, including whether the whale shark was released alive but subsequently died.
4. CPCs using other gear types fishing for tuna and tuna-like species associated with a whale shark shall report all interactions with whale sharks to the relevant authority of the flag State and include all the information outlined in paragraph 3b(i–v).
5. CPCs shall adopt Fish Aggregating Device designs that reduce the incidence of entanglement, according to **Annex III** of Resolution 13/08 [superseded by Resolution 15/08, by Resolution 17/08, by Resolution 18/08 and then by [Resolution 19/02](#)] (or any subsequent revision).
6. The Commission requests that the IOTC Scientific Committee develop best practice guidelines for the safe release and handling of encircled whale sharks, taking into account those developed in other regional fisheries management organisations including the Western and Central Pacific Fisheries Commission, and that these guidelines be submitted to the 2014 Commission meeting for endorsement.
7. CPCs shall report the information and data collected under paragraph 3(b) and paragraph 4 through logbooks, or when an observer is onboard through observer programs, and provide to the IOTC Secretariat by 30 June of the following year and according to the timelines specified in Resolution 10/02 [superseded by [Resolution 15/02](#)] (or any subsequent revision).
8. CPCs shall report, in accordance with Article X of the IOTC Agreement, any instances in which whale sharks have been encircled by the purse seine nets of their flagged vessels.
9. For CPCs having national and state legislation for protecting the species shall be exempt from reporting to IOTC, but are encouraged to provide data for the IOTC Scientific Committee consideration. The IOTC Scientific Committee will analyse the situation concerning the availability of data and will advise the Commission to undertake support measures to developing CPCs to overcome this situation.

RESOLUTION 13/06

ON A SCIENTIFIC AND MANAGEMENT FRAMEWORK ON THE CONSERVATION OF SHARK SPECIES CAUGHT IN ASSOCIATION WITH IOTC MANAGED FISHERIES

(Objection from India: Not binding on India)

The Indian Ocean Tuna Commission (IOTC),

RECALLING IOTC Resolution 05/05 [**superseded by [Resolution 17/05](#)**] concerning the conservation of sharks caught in association with fisheries managed by IOTC;

NOTING that the IOTC Working Party on Ecosystems and Bycatch (WPEB) recognised that full stock assessments on sharks may not be possible because of data limitations and that it is essential that some stock assessment evaluation should be carried out;

NOTING that the IOTC Scientific Committee advises that maintaining or increasing fishing efforts for certain shark species will probably result in further declines in biomass, productivity and CPUE;

NOTING that the ecological risk assessment (ERA) by fishing gears made by the IOTC Scientific Committee recognises the oceanic whitetip sharks (*Carcharhinus longimanus*) as vulnerable species in IOTC fisheries;

CONSIDERING that, sharks are caught as either main target or bycatch in the IOTC area of competence and valuable fishery resources for local communities in IOTC area;

CONSIDERING that the number of fishing vessels such as longliners and purse seiners and their fishing effort are gradually getting to reduce in the IOTC area of competence recently;

RECOGNISING the need for further improvement of the level of sharks data/information submitted by Contracting Parties and Cooperating Non-Contracting Parties (hereafter referred to as CPCs) to IOTC;

RECOGNISING the significant impact of IOTC Conservation and Management Measures regarding sharks on fishing operations and sharks data/information collected and reported by CPCs;

FURTHER RECOGNISING the need to establish a scientific framework for the conservation and management of shark species in IOTC;

BEARING IN MIND that oceanic whitetip sharks can be easily distinguished from other shark species and can therefore be released before they are taken on board of the vessel;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. The Commission shall determine the shark species that are subjected to IOTC Conservation and Management Measures, including prohibition to retain on board, tranship, land or store any part or whole carcass according to the IOTC Scientific Committee's (SC) recommendation or advice.
2. The SC recommendation or advice shall be conducted taking account of:
 - a) full stock assessments on sharks, stock assessment and Ecological Risk Assessments (ERAs) by fishing gears, using available best scientific data/information;
 - b) trend of fishing effort by fishing gear on each shark species;
 - c) effective IOTC Conservation and Management Measures for certain fishing gears with high risk by shark species;
 - d) priority in shark species with high risk;
 - e) review of practical implementation of prohibition to retain on board of shark species;

- f) feasibility of implementation of prohibition to retain on board including identification of shark species;
 - g) impact and bias of IOTC Conservation and Management Measures of sharks on fishing operations and sharks data/information collected and reported by CPCs;
 - h) further improvement of level for sharks data/information submitted by CPCs, particularly developing CPCs.
3. Notwithstanding paragraphs 1 and 2, CPCs shall prohibit, as an interim pilot measure, all fishing vessels flying their flag and on the IOTC Record of Authorised Vessels, or authorised to fish for tuna or tuna-like species managed by the IOTC on the high seas to retain onboard, tranship, land or store any part or whole carcass of oceanic whitetip sharks with the exception of paragraph 7. The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective Exclusive Economic Zone (EEZ) for the purpose of local consumption.
 4. CPCs shall require fishing vessels flying their flag and on the IOTC Record of Authorised Vessels or authorised to fish for tuna and tuna-like species managed by the IOTC on the high seas to promptly release unharmed, to the extent practicable, of oceanic whitetip sharks when brought alongside for taking onboard the vessel. However, CPCs should encourage their fishers to release this species if recognised on the line before bringing them onboard the vessels.
 5. CPCs shall encourage their fishers to record incidental catches as well as live releases of oceanic whitetip sharks. These data shall be kept at the IOTC Secretariat.
 6. CPCs shall, where possible, implement research on oceanic whitetip sharks taken in the IOTC area of competence, in order to identify potential nursery areas. Based on this research, CPCs shall consider other measures, as appropriate.
 7. Scientific observers shall be allowed to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections) from oceanic whitetip sharks taken in the IOTC area of competence that are dead at haulback, provided that the samples are a part of a research project approved by the IOTC Scientific Committee (SC)/the IOTC Working Party on Ecosystems and Bycatch (WPEB). In order to obtain the approval, a detailed document outlining the purpose of the work, number of samples intended to be collected and the spatio-temporal distribution of the sampling effect must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the SC/WPEB.
 8. The CPCs, especially those targeting sharks, shall submit data for sharks, as required by IOTC data reporting procedures.
 9. The provisional measures stipulated in this Resolution shall be evaluated in 2016 by the IOTC Scientific Committee to deliver more appropriate advice on the conservation and management of the stocks for the consideration of the Commission.

RESOLUTION 13/09
ON THE CONSERVATION OF ALBACORE CAUGHT IN THE IOTC AREA OF COMPETENCE

The Indian Ocean Tuna Commission (IOTC),

CONSIDERING that albacore (*Thunnus alalunga*) is one of the most important species managed by IOTC;

NOTING that the IOTC Working Party on Temperate Tunas and the IOTC Scientific Committee recognised that the current level of catches is likely to result in further declines in albacore biomass, productivity and catch-per-unit-effort (CPUE);

FURTHER NOTING that the impacts of the piracy in western Indian Ocean have resulted in the displacement of a substantial portion of the longline fishing effort into the traditional albacore fishing grounds in the southern and eastern Indian Ocean and therefore it is likely that catch-and-effort on albacore will decline in the future unless management action is taken;

BEARING IN MIND that the albacore stock in the Indian Ocean is currently subject to overfishing (current fishing mortality > fishing mortality allowing the stock to deliver MSY) and that the fishing mortality rate needs to be reduced below the 2010 level to ensure that the fishing mortality in 2020 does not exceed the fishing mortality allowing the stock to deliver MSY;

CONSIDERING the recommendations of the 15th Session of the IOTC Scientific Committee held in Mahé, Seychelles from 13–15 December 2012;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that the Commission shall request the IOTC Scientific Committee:

1. To compile, review, discuss and assess, during the year 2014 and with the support of all the concerned CPCs, the coverage and the quality of all available data on catches and fishing effort related to albacore fisheries in the IOTC area of competence;
2. Through its IOTC Working Party on Temperate Tunas (WPTmT), to examine in relevant 2014 sessions the state of albacore stock, by considering even common working sessions with the ICCAT scientific community to improve the knowledge on the interrelation between the Indian Ocean and Atlantic albacore populations; and
3. To advise the Commission, by end of 2014 at the latest:
 - a) On Target Reference Points (TRPs) and Limit Reference Points (LRPs) used when assessing the albacore stock status and when establishing the Kobe plot and Kobe matrices;
 - b) On potential management measures having been examined through the Management Strategy Evaluation (MSE) process. These management measures will therefore have to ensure the achievement of the conservation and optimal utilisation of stocks as laid down in article V of the Agreement for the establishment of the IOTC and more particularly to ensure that, in as short a period as possible and no later than 2020, (i) the fishing mortality rate does not exceed the fishing mortality rate allowing the stock to deliver MSY and (ii) the spawning biomass is maintained at or above its MSY level.



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

iotc ctoi

ACTIVE CMMs ADOPTED AT THE SIXTEENTH SESSION OF THE IOTC

2012

RESOLUTION 12/01

ON THE IMPLEMENTATION OF THE PRECAUTIONARY APPROACH

The Indian Ocean Tuna Commission (IOTC),

RECALLING that Article 5, paragraph c, of the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA), establishes the application of the precautionary approach as a general principle for sound fisheries management;

FURTHER RECALLING that Article 6, and Annex II, of UNFSA provide guidelines for the implementation of the precautionary approach, including the adoption of provisional reference points when information for establishing reference points is absent or poor;

NOTING that Article 7.5 of the FAO Code of Conduct for Responsible Fisheries also recommends the implementation of the precautionary approach, *inter alia*, on the basis of stock-based target and limit reference points;

NOTING that recommendations 37 and 38 of the Performance Review Panel, adopted by the Commission as Resolution 09/01 [superseded by [Resolution 16/03](#)], indicate that pending the amendment or replacement of the IOTC Agreement to incorporate modern fisheries management principles, the Commission should implement the precautionary approach as set forth in the UNFSA;

MINDFUL that Paragraph 29.6 of the FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries, revision 1, 2009, and other eco-certification initiatives highlight the implementation of the precautionary approach as an important criterion to assess the sustainability of a fishery;

RECALLING the time–area closure adopted by the Commission towards the conservation of tropical tuna stocks, described in Resolution 10/01 [superseded by [Resolution 12/13](#), then [Resolution 14/02](#)];

RECALLING that the IOTC Scientific Committee has initiated a process of management strategy evaluation to focus the provision of scientific advice on the information needs of the Commission;

RECOGNISING the need to ensure the sustainability of fisheries for tunas and tuna-like species for food security, livelihoods, economic development, multispecies interactions and environmental impacts in its decisions;

AGREES, in accordance with paragraph 1 of Article IX of the IOTC Agreement, to the following:

1. To apply the precautionary approach, in accordance with relevant internationally agreed standards, in particular with the guidelines set forth in the UNFSA, and to ensure the sustainable utilisation of fisheries resources as set forth in Article V of the IOTC Agreement.
2. In applying the precautionary approach, the Commission shall adopt, after due consideration of the advice supplied by the IOTC Scientific Committee,
 - a) stock-specific reference points (including, but not necessarily limited to, target and limit reference points¹), relative to fishing mortality and biomass, and
 - b) associated harvest control rules², that is, management actions to be taken as the reference points for stock status are approached or if they are breached.

¹ Target Reference Points corresponds to a state of a fishery and / or a resource which is considered desirable; Limit Reference Points indicates the limit beyond which the state of a fishery and / or a resource is not considered desirable. Source: <http://www.fao.org/fi/glossary> (accessed 25 April 2012).

² Harvest Control Rule: A rule that describes how harvest is intended to be controlled by management in relation to the state of some indicator of stock status. Source: <http://www.fao.org/fi/glossary> (accessed 25 April 2012).

Reference points and harvest control rules shall be determined so that, according to the best available science, the risk of a negative impact on the sustainability of Indian Ocean resources of tuna and tuna-like species is minimised.

3. In the determination of appropriate reference points and harvest control rules, consideration must be given to major uncertainties, including the uncertainty about the status of the stocks relative to the reference points, uncertainty about biological, environmental and socio-economic events and the effects of fishing activities on non-target and associated or dependent species.
4. If an unanticipated event, such as a natural phenomenon has a significant adverse impact on the status of a stock or its associated environment, the Commission shall adopt Conservation and Management Measures on an emergency basis to ensure that fishing activity does not exacerbate such adverse impacts.
5. Initially and as an interim measure, the Commission may adopt provisional reference points and harvest control rules, taking into account the advice of the IOTC Scientific Committee; such measures would remain current until such time as the Commission chooses to update them.
6. Instruct the IOTC Scientific Committee to assess, through the management strategy evaluation process, the performance of reference points, including any interim reference points, and of potential harvest control rules to be applied as the status of the stocks approaches the reference points.
7. After completion of the management strategy evaluation, the IOTC Scientific Committee should provide the Commission with recommended reference points for all major stocks, and cast future advice on the status of the stocks relative to the adopted reference points, on the basis of the best available scientific evidence.
8. The IOTC Scientific Committee will report on the progress of the management strategy evaluation process at the Commission Session in 2014, with a view to confirming or updating any interim reference points and associated harvest control rules.

RESOLUTION 12/02

DATA CONFIDENTIALITY POLICY AND PROCEDURES

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the need for confidentiality at the commercial and organisational levels for data submitted to the IOTC;

CONSIDERING the provisions set forth in Resolution 10/02 [superseded by [Resolution 15/02](#)] *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*;

CONSIDERING the provisions set forth in Resolution 11/04 [superseded by [Resolution 22/04](#)] *On a regional observer scheme*;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The following policy and procedures on confidentiality of data will apply:

DATA SUBMITTED TO THE IOTC SECRETARIAT

2. The policy for releasing catch-and-effort, length-frequency and observer data will be as follows:

Standard stratification

- a) Catch-and-effort and length-frequency data grouped by 5° longitude by 5° latitude by month for longline and 1° longitude by 1° latitude by month for surface fisheries stratified by fishing nation are considered to be in the public domain, provided that the catch of no individual vessel can be identified within a time/area stratum. In cases when an individual vessel can be identified, the data will be aggregated by time, area or flag to preclude such identification, and will then be in the public domain.

Finer level stratification

- b) Catch-and-effort and length-frequency data grouped at a finer level of time-area stratification will only be released with written authorisation from the sources of the data. Each data release will require the specific permission of the IOTC Executive Secretary;
- c) Observer data grouped by 1° longitude by 1° latitude for surface fisheries and by 5° longitude by 5° latitude for longline, stratified by month and by fishing nation are considered to be in the public domain, provided that the activities /catch of no individual vessel can be identified within a time/area stratum;
- d) A Working Party will specify the reasons for which the data are required;
- e) Individuals requesting the data are required to provide a description of the research project, including the objectives, methodology and intentions for publication. Prior to publication, the manuscript should be cleared by the IOTC Executive Secretary. The data are released only for use in the specified research project and the data must be destroyed upon completion of the project. However, with authorisation from the sources of the data, catch-and-effort and length-frequency data may be released for long-term usage for research purposes, and in such cases the data need not be destroyed;
- f) The identity of individual vessels will be hidden in fine-level data unless the individual requesting this information can justify its necessity;
- g) Both IOTC Working Parties and individuals requesting data shall provide a report of the results of the research project to the IOTC for subsequent forwarding to the sources of the data.

3. The policy for releasing tagging data will be as follows:

- a) Detailed tagging and recovery data are considered to be in the public domain, with the exception of any vessel names or identifiers and detailed information about the person who recovered the tag (name and

address), however, requests for tagging data should be made to the IOTC Executive Secretary through the application form provided at **Annex I**.

PROCEDURES FOR THE SAFEGUARD OF RECORDS

4. Procedures for safeguarding records and databases will be as follows:
 - a) Access to logbook-level information or detailed observer data will be restricted to IOTC staff requiring these records for their official duties. Each staff member having access to these records will be required to sign an attestation recognising the restrictions on the use and disclosure of the information;
 - b) Logbook and observer records will be kept locked, under the specific responsibility of the Data Manager. These sheets will only be released to authorised IOTC personnel for the purpose of data input, editing or verification. Copies of these records will be authorised only for legitimate purposes and will be subjected to the same restrictions on access and storage as the originals;
 - c) Databases will be encrypted to preclude access by unauthorised persons. Full access to the database will be restricted to the Data Manager and to senior IOTC staff requiring access to these data for official purposes, under the authority of the IOTC Executive Secretary. Staff entrusted with data input, editing and verification will be provided with access to those functions and data sets required for their work.

DATA SUBMITTED TO IOTC WORKING PARTIES AND THE IOTC SCIENTIFIC COMMITTEE

5. Data submitted to IOTC Working Parties and the IOTC Scientific Committee will be retained by the IOTC Secretariat or made available for other analyses only with the permission of the source.
6. The above rules of confidentiality will apply to all members of IOTC Working Parties and the IOTC Scientific Committee.
7. This Resolution supersedes Resolution 98/02 *Data Confidentiality Policy and Procedures*.

ANNEX I
TAGGING DATA USERS APPLICATION FORM

To the Executive Secretary of the Indian Ocean Tuna Commission

I wish to submit the following request to receive and analyse data from the Indian Ocean Tuna Tagging Programme. I have read the above Data Users Policy, noting in particular, the matters relating to data confidentiality and providing an appropriate acknowledgement in the case of any publications arising from the use of these data, and agree to all the conditions listed.

Name of the institution/s requesting the data and contact details for the head researcher
Project outline
Specifications of the data required
Names and positions of the staff accessing the data (<i>Note, the IOTC Secretariat expects to be informed of any changes to the data users list</i>)
Intentions with respect to publication of the results of the proposed work

Signature and date:

Name:

Position:

Organisation:

Approved / Not Approved

Signature and date:

IOTC Executive Secretary:

RESOLUTION 12/04 ON THE CONSERVATION OF MARINE TURTLES

The Indian Ocean Tuna Commission (IOTC),

RECALLING Recommendation 05/08 [superseded by Resolution 12/04] *On Sea Turtles* and Resolution 09/06 [superseded by Resolution 12/04] *On Marine Turtles*;

FURTHER RECALLING that marine turtles, including all species in the family Cheloniidae and *Dermochelys coriacea* (leatherback turtles) are listed in Appendix I of the *Convention on International Trade in Endangered Species of Wild Fauna and Flora* (CITES) and that all species of marine turtles are listed on Appendix I or II of *Convention on the Conservation of Migratory Species of Wild Animals*;

AWARE that the populations of the six species of marine turtles under the *Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia* (IOSEA MoU) are listed as Vulnerable, Endangered or Critically endangered on the International Union for the Conservation of Nature (IUCN) Red List of Threatened Species;

RECOGNISING that the 26th FAO–COFI Session in March 2005 adopted the *Guidelines to Reduce Sea Turtle Mortality in Fishing Operations* (hereinafter referred to as “the FAO Guidelines”) and recommended their implementation by regional fisheries bodies and management organisations;

RECOGNISING that some fishing operations carried out in the Indian Ocean can adversely impact marine turtles and the need to implement measures to manage the adverse effects of fishing in the Indian Ocean on marine turtles;

ACKNOWLEDGING the activities undertaken to conserve marine turtles and the habitats on which they depend within the framework of the IOSEA MoU in particular its *Resolution to Promote the Use of Marine Turtle Bycatch Reduction Measures by IOSEA Signatory States* adopted by the Fifth Meeting of the Signatory States;

NOTING the IOTC Scientific Committee’s concern that the lack of data from Contracting Parties and Cooperating Non-Contracting Parties (CPCs) on the interactions and mortality of marine turtles from fisheries under the mandate of the IOTC undermines the ability to estimate levels of marine turtle bycatch and consequently IOTC’s capacity to respond and manage adverse effects of fishing on marine turtles;

FURTHER NOTING the IOTC Scientific Committee’s concern that the expansion of gillnet fishing from traditional fishing grounds into high seas might increase the interaction with marine turtles and lead to increased mortality;

CONVINCED of the need to strengthen Resolution 09/06 [superseded by Resolution 12/04] *On Marine Turtles* to ensure that the Resolution applies equally to all marine turtle species and that CPCs annually report all interactions and mortalities of marine turtles in fisheries under the mandate of the IOTC;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. This Resolution shall apply to all fishing vessels on the IOTC Record of Fishing Vessels.
2. Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as “CPCs”) will implement, as appropriate, the FAO Guidelines.
3. CPCs shall collect (including through logbooks and observer programs) and provide to the IOTC Secretariat no later than 30 June of the following year in accordance with Resolution 10/02 [superseded by Resolution 15/02] (or any subsequent revision), all data on their vessels’ interactions with marine turtles. The data shall include the level of logbook or observer coverage and an estimation of total mortality of marine turtles incidentally caught in their fisheries.
4. CPCs shall report to the IOTC Scientific Committee information on successful mitigation measures and other impacts on marine turtles in the IOTC area, such as the deterioration of nesting sites and swallowing of marine debris.

5. CPCs shall report to the Commission in the annual implementation report, in accordance with Article X of the IOTC Agreement, their progress of implementation of the FAO Guidelines and this Resolution.
6. CPCs shall require fishermen on vessels targeting species covered by the IOTC Agreement to bring aboard, if practicable, any captured marine turtle that is comatose or inactive as soon as possible and foster its recovery, including aiding in its resuscitation, before safely returning it to the water. CPCs shall ensure that fishermen are aware of and use proper mitigation, identification, handling and de-hooking techniques and keep on board all necessary equipment for the release of marine turtles, in accordance with handling guidelines in the IOTC Marine Turtle Identification Cards.
7. CPCs with gillnet vessels that fish for species covered by the IOTC Agreement shall:
 - a) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks¹ and report such incidents to the appropriate authorities of the CPC.
8. CPCs with longline vessels that fish for species covered by the IOTC Agreement shall:
 - a) Ensure that the operators of all longline vessels carry line cutters and de-hookers in order to facilitate the appropriate handling and prompt release of marine turtles caught or entangled, and that they do so in accordance with IOTC Guidelines. CPCs shall also ensure that operators of such vessels follow the handling guidelines in the IOTC Marine Turtle Identification Cards;
 - b) Where appropriate, encourage the use of whole finfish bait;
 - c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks² and report such incidents to the appropriate authorities of the CPC.
9. CPCs with purse seine vessels that fish for species covered by the IOTC Agreement shall:
 - a) Ensure that operators of such vessels, while fishing in the IOTC area:
 - i. To the extent practicable, avoid encirclement of marine turtles, and if a marine turtle is encircled or entangled, take practicable measures to safely release the turtle in accordance with the handling guidelines in the IOTC Marine Turtle Identification Cards;
 - ii. To the extent practicable, release all marine turtles observed entangled in fish aggregating devices (FADs) or other fishing gear;
 - iii. If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll; and to the extent practicable, assist the recovery of the turtle before returning it to the water;
 - iv. Carry and employ dip nets, when appropriate, to handle marine turtles.
 - b) Encourage such vessels to adopt FAD designs that reduce the incidence of entanglement of marine turtles according to international standards;
 - c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks³ and report such incidents to the appropriate authorities of the CPC.

¹ This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release.

² This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release

³ This information should include, where possible, details on species, location of capture, conditions, actions taken on board and location of release

10. All CPCs are requested to:
 - a) Where appropriate undertake research trials of circle hooks, use of whole finfish for bait, alternative FAD designs, alternative handling techniques, gillnet design and fishing practices and other mitigation methods which may improve the mitigation of adverse effects on marine turtles;
 - b) Report the results of these trials to the IOTC Scientific Committee, at least 30 days in advance of the annual meetings of the Scientific Committee.
11. The IOTC Scientific Committee shall request the IOTC Working Party on Ecosystems and Bycatch to:
 - a) Develop recommendations on appropriate mitigation measures for gillnet, longline and purse seine fisheries in the IOTC area;
 - b) Develop regional standards covering data collection, data exchange and training;
 - c) Develop improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials.

The recommendations of the IOTC Working Party on Ecosystems and Bycatch shall be provided to the IOTC Scientific Committee for consideration at its annual session in 2012. In developing its recommendations, the IOTC Working Party on Ecosystems and Bycatch shall examine and take into account the information provided by CPCs in accordance with paragraph 10 of this measure, other research available on the effectiveness of various mitigation methods in the IOTC area, mitigation measures and guidelines adopted by other relevant organizations and, in particular, those of the Western and Central Pacific Fisheries Commission. The IOTC Working Party on Ecosystems and Bycatch will specifically consider the effects of circle hooks on target species catch rates, marine turtle mortalities and other bycatch species.

12. At its annual session in 2013 the Commission shall consider the recommendations of the IOTC Scientific Committee, together with socio-economic considerations, with a view to adopting further measures to mitigate interactions with marine turtles in fisheries covered by the IOTC Agreement.
13. In researching new mitigation methods, consideration should be given to ensuring that methods do not cause greater harm than they prevent and do not adversely impact other species (particularly threatened species) and/or the environment.
14. CPCs are encouraged to collaborate with the IOSEA and take into account the IOSEA MoU including the provisions of the Conservation and Management Plan in the implementation of bycatch mitigation measures for marine turtles.
15. The IOTC and IOSEA secretariats are encouraged to intensify their collaboration and exchange of information on marine turtle issues in accordance with the protocols agreed by the Commission.
16. CPCs are encouraged to support developing countries in their implementation of the FAO Guidelines and this Resolution.
17. The IOTC Scientific Committee shall annually review the information reported by CPCs pursuant to this measure and, as necessary, provide recommendations to the Commission on ways to strengthen efforts to reduce marine turtle interactions with IOTC fisheries.
18. This Resolution supersedes Recommendation 05/08 *On Sea Turtles* and Resolution 09/06 *On Marine Turtles*.

RESOLUTION 12/06

ON REDUCING THE INCIDENTAL BYCATCH OF SEABIRDS IN LONGLINE FISHERIES

The Indian Ocean Tuna Commission (IOTC),

RECALLING Resolution 10/06 *On reducing incidental bycatch of seabirds in longline fisheries* [superseded by [Resolution 12/06](#)], and in particular, its paragraph 8;

RECOGNISING the need to strengthen mechanisms to protect seabirds in the Indian Ocean, and to harmonise them with ICCAT measures that will enter into force no later than July 2013;

TAKING INTO ACCOUNT the United Nations Food and Agriculture Organization (FAO) International Plan of Action for Reducing the Incidental Catch of Seabirds in Longline Fisheries (IPOA-Seabirds);

NOTING the recommendations of the IOTC Scientific Committee, in agreement with the IOTC Working Party on Ecosystems and Bycatch (WPEB) on measures to mitigate seabird interactions as outlined in their 2007, 2009 and 2011 Reports;

ACKNOWLEDGING that to date some IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as “CPCs”) have identified the need for, and have either completed or are near finalising, their National Plan of Action on Seabirds;

RECOGNISING the global concern that some species of seabirds, notably albatrosses and petrels, are threatened with extinction;

NOTING that the Agreement on the Conservation of Albatrosses and Petrels, which opened for signatures at Canberra on 19 June 2001, has entered into force;

NOTING that the ultimate aim of the IOTC and the CPCs is to achieve a zero bycatch of seabirds for fisheries under the purview of the IOTC, especially threatened albatrosses and petrel species in longline fisheries;

BEARING in mind studies undertaken in other longline tuna fisheries, demonstrating the economical benefit of measures to mitigate incidental bycatch of seabirds, by significantly increasing catches of targeted species;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. CPCs shall record data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 11/04 [superseded by [Resolution 22/04](#)] and report these annually. Observers shall to the extent possible take photographs of seabirds caught by fishing vessels and transmit them to national seabird experts or to the IOTC Secretariat, for confirmation of identification.
2. CPCs that have not fully implemented the provisions of the IOTC Regional Observer Scheme outlined in paragraph 2 of Resolution 11/04 [superseded by [Resolution 22/04](#)] shall report seabird incidental bycatch through logbooks, including details of species, if possible.
3. CPCs shall provide to the Commission as part of their annual reports, information on how they are implementing this measure.
4. CPCs shall seek to achieve reductions in levels of seabird bycatch across all fishing areas, seasons, and fisheries through the use of effective mitigation measures, while giving due consideration to the safety of crew members and the practicability of mitigation measures.
5. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the three mitigation measures in **Table 1**. These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.
6. Mitigation measures used pursuant to paragraph 5 shall conform to the minimum technical standards for these measures, as shown in **Table 1**.



7. The design and deployment for bird scaring lines should also meet the additional specifications provided in **Annex I**.
8. The IOTC Scientific Committee, based notably on the work of the WPEB and information from CPCs, will analyse the impact of this Resolution on seabird bycatch no later than for the 2016 meeting of the Commission. It shall advise the Commission on any modifications that are required, based on experience to date of the operation of the Resolution and/or further international studies, research or advice on best practice on the issue, in order to make the Resolution more effective.
9. The Commission should hold a workshop in the intersessional period before the entry into force of this Resolution to facilitate its implementation, particularly focusing on how to address safety and practical concerns. CPCs shall ensure that fishers make a trial of the safety and practicality of these measures for review at the workshops with a view of resolving their concerns and assuring the orderly implementation, including training for and adaptation to these measures. A second workshop should be held, if necessary to explain the science, theory and application of the line weighting measure.
10. This Resolution shall enter into force on 1 July 2014.
11. As of 1 July 2014, the Resolution 10/06 *on reducing incidental bycatch of seabirds in longline fisheries* and the Recommendation 05/09 *on incidental mortality of seabirds* are superseded by this Resolution.

Table 1. Mitigation measures

Mitigation	Description	Specification
Night setting with minimum deck lighting	No setting between nautical dawn and before nautical dusk. Deck lighting to be kept to a minimum.	Nautical dusk and nautical dawn are defined as set out in the Nautical Almanac tables for relevant latitude, local time and date. Minimum deck lighting should not breach minimum standards for safety and navigation.
Bird-scaring lines (Tori lines)	Bird-scaring lines shall be deployed during the entire longline setting to deter birds from approaching the branch line.	For vessels greater than or equal to 35 m: a) Deploy at least 1 bird-scaring line. Where practical, vessels are encouraged to use a second tori pole and bird scaring line at times of high bird abundance or activity; both tori lines should be deployed simultaneously, one on each side of the line being set. b) Aerial extent of bird-scaring lines must be greater than or equal to 100 m. c) Long streamers of sufficient length to reach the sea surface in calm conditions must be used. d) Long streamers must be at intervals of no more than 5m. For vessels less than 35 m: - Deploy at least 1 bird-scaring line. - Aerial extent must be greater than or equal to 75 m. - Long and/or short (but greater than 1 m in length) streamers must be used and placed at intervals as follows: 1. Short: intervals of no more than 2 m. 2. Long: intervals of no more than 5 m for the first 55 m of bird scaring line. Additional design and deployment guidelines for bird-scaring lines are provided in Annex I of this Resolution.
Line weighting	Line weights to be deployed on the snood prior to setting.	Greater than a total of 45 g attached within 1 m of the hook or; Greater than a total of 60 g attached within 3.5 m of the hook or; Greater than a total of 98 g weight attached within 4 m of the hook.

ANNEX I

Supplemental Guidelines for Design and Deployment of Tori Lines

Preamble

Minimum technical standards for deployment of tori lines are found in **Table 1** of this Resolution, and are not repeated here. These supplemental guidelines are designed to assist in the preparation and implementation of tori line regulations for longline vessels. While these guidelines are relatively explicit, improvement in tori line effectiveness through experimentation is encouraged, within the requirements of **Table 1** in the Resolution. The guidelines take into account environmental and operational variables such as weather conditions, setting speed and ship size, all of which influence tori line performance and design in protecting baits from birds. Tori line design and use may change to take account of these variables provided that line performance is not compromised. On-going improvement in tori line design is envisaged and consequently review of these guidelines should be undertaken in the future.

Tori line design (see **Figure 1**)

1. An appropriate towed device on the section of the tori line in the water can improve the aerial extension.
2. The above water section of the line should be sufficiently light that its movement is unpredictable to avoid habituation by birds and sufficiently heavy to avoid deflection of the line by wind.
3. The line is best attached to the vessel with a robust barrel swivel to reduce tangling of the line.
4. The streamers should be made of material that is conspicuous and produces an unpredictable lively action (e.g. strong fine line sheathed in red polyurethane tubing) suspended from a robust three-way swivel (that again reduces tangles) attached to the tori line.
5. Each streamer should consist of two or more strands.
6. Each streamer pair should be detachable by means of a clip so that line stowage is more efficient.

Deployment of tori lines

1. The line should be suspended from a pole affixed to the vessel. The tori pole should be set as high as possible so that the line protects bait a good distance astern of the vessel and will not tangle with fishing gear. Greater pole height provides greater bait protection. For example, a height of around 7 m above the water line can give about 100 m of bait protection.
2. If vessels use only one tori line it should be set to windward of sinking baits. If baited hooks are set outboard of the wake, the streamer line attachment point to the vessel should be positioned several meters outboard of the side of the vessel that baits are deployed. If vessels use two tori lines, baited hooks should be deployed within the area bounded by the two tori lines.
3. Deployment of multiple tori lines is encouraged to provide even greater protection of baits from birds.
4. Because there is the potential for line breakage and tangling, spare tori lines should be carried onboard to replace damaged lines and to ensure fishing operations can continue uninterrupted. Breakaways can be incorporated into the tori line to minimize safety and operational problems should a longline float foul or tangle with the in-water extent of a streamer line.
5. When fishers use a bait casting machine (BCM), they must ensure coordination of tori line and machine by: i) ensuring the BCM throws directly under the tori line protection, and ii) when using a BCM (or multiple BCMs) that allows throwing to both port and starboard, two tori lines should be used.
6. When casting branchline by hand, fishers should ensure that the baited hooks and coiled branchline sections are cast under the tori line protection, avoiding the propeller turbulence which may slow the sink rate.
7. Fishers are encouraged to install manual, electric or hydraulic winches to improve ease of deployment and retrieval of tori lines.

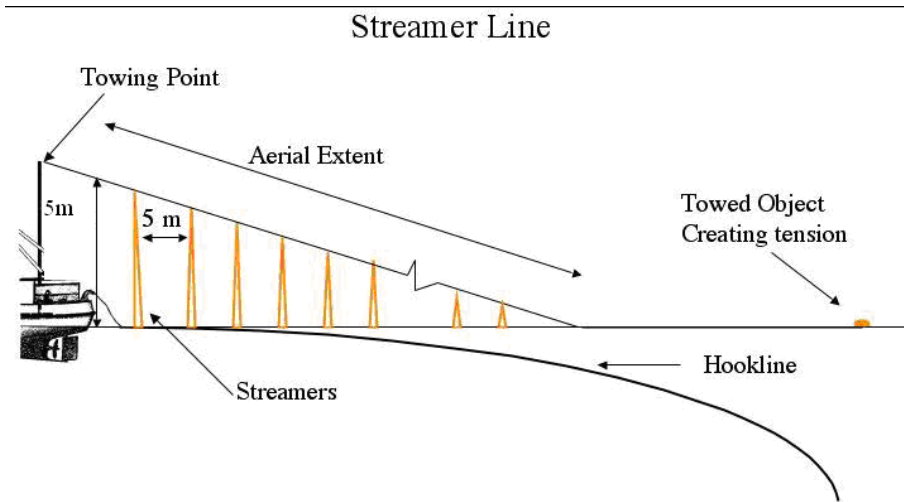


Figure 1. Diagram of Bird Scaring Streamer Line.

RESOLUTION 12/09

ON THE CONSERVATION OF THRESHER SHARKS (FAMILY ALOPIIDAE) CAUGHT IN ASSOCIATION WITH FISHERIES IN THE IOTC AREA OF COMPETENCE

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the IOTC Resolution 05/05 [superseded by [Resolution 17/05](#)] concerning the conservation of sharks caught in association with fisheries managed by IOTC;

CONSIDERING that thresher sharks of the family Alopiidae are caught as bycatch in the IOTC area of competence;

NOTING that at its 2009 meeting, the IOTC Working Party on Ecosystems and Bycatch recognised that full stock assessments on sharks may not be possible because of data limitations and that it is essential that some stock assessment evaluation should be carried out;

NOTING that the international scientific community points out that the Bigeye thresher shark (*Alopias superciliosus*) is particularly endangered and vulnerable;

CONSIDERING that it is difficult to differentiate between the various species of thresher sharks without taking them onboard and that such action might jeopardise the survival of the captured individuals;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. This measure shall apply to all fishing vessels on the IOTC Record of Authorised Vessels.
2. Fishing Vessels flying the flag of an IOTC Member or Cooperating Non-Contracting Party (CPCs) are prohibited from retaining on board, transshipping, landing, storing, selling or offering for sale any part or whole carcass of thresher sharks of all the species of the family Alopiidae, with the exception of paragraph 7.
3. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, thresher sharks when brought along side for taking on board the vessel.
4. CPCs shall encourage their fishers to record and report incidental catches as well as live releases. These data will be then kept at the IOTC Secretariat.
5. Recreational and sport fishing shall release alive all caught animals of thresher sharks of all the species of the family Alopiidae. In no circumstances specimen shall be retained on board, transhipped, landed, stored, sold or offered for sale. The CPCs shall ensure that both recreational and sport fishermen carrying out fishing with high risk of catching thresher sharks are equipped with instruments suitable to release alive the animals.
6. CPCs shall, where possible, implement research on sharks of the species *Alopias* spp, in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider additional management measures, as appropriate.
7. Scientific observers shall be allowed to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections) from thresher sharks that are dead at haulback, provided that the samples are part of the research project approved by the IOTC Scientific Committee (or IOTC Working Party on Ecosystems and Bycatch (WPEB)). In order to obtain the approval, a detailed document outlining the purpose of the work, number and type of samples intended to be collected and the spatio-temporal distribution of the sampling work must be included in the proposal. Annual progress of the work and a final report on completion of the project shall be presented to the IOTC WPEB and the IOTC Scientific Committee.
8. The Contracting Parties, Cooperating Non-Contracting Parties, especially those directing fishing activities for sharks, shall submit data for sharks, as required by IOTC data reporting procedures.
9. This Resolution supersedes Resolution 10/12 *On the Conservation of Thresher Sharks (Family Alopiidae) Caught in Association with Fisheries in the IOTC Area of Competence*.



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RESOLUTION 12/12

TO PROHIBIT THE USE OF LARGE-SCALE DRIFTNETS ON THE HIGH SEAS IN THE IOTC AREA

(Resolution 12/12 remains binding on Pakistan)

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the United Nations General Assembly (UNGA) Resolution 46/215 calls for a global moratorium on large-scale high seas driftnet fishing;

NOTING that a number of vessels continue to engage in large-scale high seas driftnet fishing in the Indian Ocean area (IOTC area of competence);

MINDFUL that any vessel fishing with large-scale driftnets on the high seas in the IOTC area of competence, or configured to conduct large-scale high seas driftnet operations, has the capacity to take species of concern to the IOTC and is likely to undermine the effectiveness of IOTC Conservation and Management Measures;

NOTING with concern that recent information indicates that such vessels are interacting more frequently with highly migratory species, such as tunas, swordfish, sharks, and other species covered by the IOTC Agreement; and that associated “ghost fishing” by lost or discarded driftnets have serious detrimental effects on these species of concern and the marine environment;

ADOPTS in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. The use of large-scale driftnets¹ on the high seas within the IOTC area of competence shall be prohibited.
2. Each Contracting Party and Cooperating Non-Contracting party (hereinafter referred to as CPCs) shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets while on the high seas in the IOTC area of competence.
3. A CPC-flagged fishing vessel will be presumed to have used large-scale driftnets on the high seas in the IOTC area of competence if it is found operating on the high seas in the IOTC area of competence and is configured² to use large-scale driftnets.
4. Paragraph 3 shall not apply to a CPC-flagged vessel duly authorised to use large-scale driftnets in their EEZs. While on the high seas in the IOTC area of competence all of such driftnets and related fishing equipment shall be stowed or secured in such a manner that they are not readily available to be used for fishing.
5. CPCs shall include in their Annual Reports a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing on the high seas in the IOTC area of competence.
6. The IOTC shall periodically assess whether additional measures should be adopted and implemented to ensure that large-scale driftnets are not used on the high seas in the IOTC area of competence. The first such assessment shall take place in 2013.
7. Nothing in this measure shall prevent CPCs from applying more stringent measures to regulate the use of large-scale driftnets.
8. This Resolution supersedes Resolution 09/05 *to prohibit the use of large-scale driftnets on the high seas in the IOTC area.*

¹ “Large-scale driftnets” are defined as gillnets or other nets or a combination of nets that are more than 2.5 kilometers in length whose purpose is to enmesh, entrap, or entangle fish by drifting on the surface of, or in, the water column.

² “Configured” to use large-scale drift-nets means having on board assembled gear that collectively would allow the vessel to deploy and retrieve large-scale driftnets.

RECOMMENDATION 12/15 ON THE BEST AVAILABLE SCIENCE

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the importance of sound scientific advice as the centre piece for the conservation and management of tuna and tuna-like species in the Indian Ocean and adjacent seas in line with international law and the information needs of the Commission;

AWARE that the availability of adequate scientific information is fundamental to carrying out the objectives of the IOTC Agreement laid down in its Article V;

EMPHASISING the importance of the effective participation by all CPCs in the work of the IOTC Scientific Committee and its Working Parties;

RECOGNISING the limited financial resources of developing coastal States and wishing to assist in building their scientific capacity;

ACKNOWLEDGING the need to improve the availability and quality of data and analysis used for the provision of scientific advice, including on bycatch and discards;

NOTING that participation of invited experts may advance the quality assurance of the scientific work of the IOTC Scientific Committee;

RECOGNISING the need for broadening and streamlining the scope of financial support for capacity building for the purpose of this Recommendation;

BUILDING on the deliberations and recommendations of the IOTC Scientific Committee and of the Kobe process;

NOTING the importance of regular assessments of the performance of Regional Fisheries Management Organisations, including the functioning of their scientific committees;

RECOMMENDS, in accordance with the provisions of Article IX, paragraph 8 of the IOTC Agreement, that CPCs undertake to:

1. Take all measures which would be appropriate:
 - i. To improve the communication between CPCs, the Commission and the IOTC Scientific Committee by enabling a continuous dialogue, for example, through the use of electronic discussion groups and tele-/video conferencing;
 - ii. To improve the collection and submission of data to the IOTC Secretariat, including on bycatch;
 - iii. To support research programs and projects relevant to the information needs of the Commission;
 - iv. To facilitate participation in meetings of the IOTC Scientific Committee, its Working Parties as well as in other relevant scientific bodies of scientists with suitable scientific qualifications;
 - v. To contribute to the training of scientific researchers, including young scientists.
2. Preserve and promote the professional independence and excellence of the IOTC Scientific Committee and its Working Parties, and the relevance of their work to the information needs of the Commission, by:
 - i. Enhancing the participation of scientists in meetings of the IOTC Scientific Committee and its Working Parties, including scientists involved in other tuna RFMOs and other relevant scientific bodies;
 - ii. Drafting a code of conduct for the IOTC Scientific Committee, including for its Working Parties, for adoption by the Commission. For this purpose, the IOTC Scientific Committee may develop rules to

avoid conflict of interests, to ensure the quality, relevance and professional independence of scientific activities and, where applicable, to maintain the confidentiality of the data used;

- iii. Drafting a strategic plan for the IOTC Scientific Committee, including its Working Parties, for adoption by the Commission. The strategic plan shall be used to guide the work of the IOTC Scientific Committee, and Working Parties, in assisting the Commission to effectively achieve its mandate;
 - iv. Ensuring that relevant, professionally independent and objective scientific advice, based on the best available and peer-reviewed scientific analysis, is presented by the IOTC Scientific Committee to the Commission;
 - v. Ensuring that sources and history of revisions of all documents submitted to and assessed by the IOTC Scientific Committee and its Working Parties are fully documented;
 - vi. Providing clear, transparent, and standardised formats for the provision of advice to the Commission;
 - vii. Providing for well-defined rules for formulating scientific advice to the Commission, reflecting different views while striving for consensus, to promote consistency and transparency.
3. Strengthen peer review mechanisms within the IOTC Scientific Committee by participation of invited experts (e.g. from other RFMOs or from academia) in the IOTC Scientific Committee activities. These experts shall be subject to the data confidentiality rules and procedures currently applicable in the IOTC.
 4. Continue to support the IOTC Scientific Committee's initiatives to publish its scientific findings in the scientific peer-reviewed academic literature.
 5. With the aim of meeting the above-mentioned objectives, consider broadening financial support and mechanisms, including *inter alia*, contributing to the "Meeting Participation Fund" for Developing IOTC Contracting Parties, for the purpose of the implementation of this Resolution, in particular to:
 - i. Contribute to the scientific capacity building of the developing CPCs and to enhance their effective participation in the work of the IOTC Scientific Committee and its Working Parties;
 - ii. Provide necessary resources for the IOTC Scientific Committee and its Working Parties, including consideration of alternative funding models for the commissioning of research.
 6. The next independent performance review of IOTC should assess the functioning of the IOTC Scientific Committee and its Working Parties as a total quality management process, including an evaluation of the potential role of external reviews.



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ACTIVE CMMs ADOPTED AT THE FIFTEENTH SESSION OF THE IOTC

2011

RESOLUTION 11/02 ON THE PROHIBITION OF FISHING ON DATA BUOYS

The Indian Ocean Tuna Commission (IOTC),

AWARE that many nations, including CPCs of the Indian Ocean Tuna Commission (IOTC), operate and deploy data buoys throughout the IOTC area of competence and oceans worldwide to gather information used to make improved weather and marine forecasts, provide assistance to fisheries by generating data on sea surface and subsurface measurements, provide assistance to search and rescue efforts at sea, and collect critical data used to conduct research on meteorological and oceanographic topics and climate prediction;

KNOWING that highly migratory species, in particular tuna species, aggregate in the vicinity of data buoys;

RECOGNISING that the World Meteorological Organization and the Intergovernmental Oceanographic Commission have determined that damage caused to data buoys by fishing vessels are significant problems in the Indian Ocean and worldwide;

CONCERNED that damage to data buoys results in significant loss of data critical to weather forecasting, to the study of marine conditions, to tsunami warnings, to support for search and rescue efforts at sea, and that Commission Members and non-members expend considerable time and resources to locate, replace and repair damaged or lost data buoys;

ALARMED that the loss of data critical to the study of marine conditions because of damage to data buoys undermines analyses by IOTC scientists seeking better understanding of tuna habitat use and the relationships between climate and tuna recruitment, as well as research by environmental scientists in general;

RECALLING UNGA resolution A/Res/64/72, paragraph 109, which "Calls upon States and regional fisheries management organisations or arrangements, working in cooperation with other relevant organisations, including the Food and Agriculture Organization of the United Nations, the Intergovernmental Oceanographic Commission and the World Meteorological Organization, to adopt, as appropriate, measures to protect ocean data buoy systems moored in areas beyond national jurisdiction from actions that impair their operation;"

ALSO RECALLING UNGA resolution A/Res/64/71, paragraph 172, which "Expresses its concern at the intentional or unintentional damage to platforms used for ocean observation and marine scientific research, such as moored buoys and tsunameters, and urges States to take necessary action and to cooperate in relevant organizations, including the Food and Agriculture Organization of the United Nations, the Intergovernmental Oceanographic Commission and the World Meteorological Organization, to address such damage;"

MINDFUL that several data buoy programs publish information on the internet describing the type and location of such buoys;

FURTHER NOTING the mandate given to the Commission to adopt generally recommended international minimum standards for the responsible conduct of fishing operations;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, the following:

1. For the purposes of this measure, data buoys are defined as floating devices, either drifting or anchored, that are deployed by governmental or recognised scientific organisations or entities for the purpose of electronically collecting and measuring environmental data, and not for the purpose of fishing activities.
2. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) shall prohibit their fishing vessels from intentionally fishing within one nautical mile of or interacting with a data buoy in the IOTC area of competence, which includes, but is not limited to, encircling the buoy with fishing gear; tying up to or attaching the vessel, or any fishing gear, part or portion of the vessel, to a data buoy or its mooring; or cutting a data buoy anchor line.
3. CPCs shall prohibit their fishing vessels from taking on board a data buoy while engaged in fishing for tuna and tuna-like species in the IOTC area of competence, unless specifically authorised or requested to do so by the Member or owner responsible for that buoy.



4. CPCs shall encourage their fishing vessels operating in the IOTC area of competence to keep watch for moored data buoys at sea and to take all reasonable measures to avoid fishing gear entanglement or directly interacting in any way with those data buoys.
5. CPCs shall require their fishing vessels that become entangled with a data buoy to remove the entangled fishing gear with as little damage to the data buoy as possible.
6. CPCs shall encourage their fishing vessels to report to them regarding any data buoys observed to be damaged or otherwise inoperable along with the date of observation, buoy location, and any discernable identifying information contained on the data buoy. CPCs shall notify the IOTC Secretariat of all such reports.
7. Notwithstanding paragraph 2, scientific research programs notified to the Commission may operate fishing vessels within one nautical mile of a data buoy so long as they do not interact with those data buoys as described in paragraph 2.
8. CPCs are encouraged to communicate to the Commission, through the IOTC Secretariat, the location of data buoy assets that they have deployed throughout the IOTC area of competence.



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ACTIVE CMMs ADOPTED AT THE FOURTEENTH SESSION OF THE IOTC

2010

RESOLUTION 10/08

CONCERNING A RECORD OF ACTIVE VESSELS FISHING FOR TUNAS AND SWORDFISH IN THE IOTC AREA

The Indian Ocean Tuna Commission (IOTC),

CONSCIOUS of the duties of every State to exercise effectively its jurisdiction and control over vessels flying its flag;

RECALLING the responsibilities incumbent on States whose vessels fish for highly migratory fish stocks on the high seas;

NOTING that the information about the size of active fleets for implementing the limitation of fishing capacity as set forth in Resolution 09/02 **[superseded by Resolution 12/11, then by Resolution 15/11]** *On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties* ;

MINDFUL of the recommendation 17 of the Performance Review Panel, as listed in Resolution 09/01 **[superseded by Resolution 16/03]** *On the performance review follow-up*, that the obligation incumbent to a flag State to report data for its vessels be included in a separate Resolution from the obligation incumbent on Members to report data on the vessels of third countries they licence to fish in their exclusive economic zones (EEZs);

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

1. All IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs) with vessels fishing for tunas and swordfish in the IOTC area of competence (hereinafter referred to as “the Area”), shall submit to the IOTC Executive Secretary by 15 February every year a list of their respective vessels that were active in the Area during the previous year and that are:
 - a) larger than 24 metres in length overall; or
 - b) in case of vessels less than 24m, those operating in waters outside the economic exclusive zone of the flag state.
2. These lists shall contain the following information for each vessel:
 - The IOTC number;
 - Name and registration number;
 - IMO number, if available;
 - Previous flag (if any);
 - International radio call sign (if any);
 - Vessel type, length, and gross tonnage (GT);
 - Name and address of owner, and/or charterer, and/or operator;
 - Main target species,
 - Period of authorisation
3. The IOTC Executive Secretary shall maintain the IOTC Record of Active Vessels, and take any measure to ensure publicity of the Record and through electronic means, including placing it on the IOTC website, in a manner consistent with confidentiality requirements noted by CPCs.
4. The IOTC Executive Secretary shall compile, for consideration by the IOTC Compliance Committee, a report on the information submitted by CPCs.



5. The objective of the report shall be to provide the IOTC Compliance Committee with an independent evaluation of the level of compliance to this Resolution, and other pertinent IOTC Resolution(s), by the concerned CPCs.
6. The IOTC Compliance Committee shall after its evaluation of the IOTC Executive Secretary's report, make appropriate recommendations to the Commission on actions that should be pursued against the non-complying CPCs. These should include, *inter alia*, taking actions under [Resolution 10/10](#).
7. IOTC Resolution 07/04 *Concerning registration and exchange of information on vessels fishing for tunas and swordfish in the IOTC Area* is superseded by this Resolution.

RESOLUTION 10/10 CONCERNING MARKET RELATED MEASURES

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the IOTC adopted Resolution 01/07 [superseded by [Resolution 14/01](#)] concerning its support of the IPOA-IUU Plan;

RECALLING the IOTC Recommendation 03/05 [superseded by [Resolution 13/01](#), then by [Resolution 14/01](#)] *Concerning trade Measures* and its non-binding nature;

CONSIDERING the calls of the United Nation General Assembly, included in particular in the UNGA Resolutions on Sustainable Fisheries N° 61/105 of 6 December 2006 and N° 62/177 of 18 December 2007, urging States, individually and through Regional Fisheries Management Organisation to adopt and implement trade measures in accordance with international law, including principles, rights and obligations established in World Trade Agreements;

CONSIDERING the need for action to ensure the effectiveness of the IOTC objectives;

CONSIDERING the obligation of all IOTC Contracting Parties and Cooperating Non-Contracting Parties (hereinafter CPCs) to respect the IOTC Conservation and Management Measures;

AWARE of the necessity for sustained efforts by CPCs to ensure the enforcement of IOTC's Conservation and Management Measures, and the need to encourage Non-Contracting Parties (NCPs) to abide by these measures;

NOTING that market related measures should be implemented only as last resort, where other measures have proven unsuccessful to prevent, deter and eliminate any act or omission that diminishes the effectiveness of IOTC Conservation and Management Measures;

ALSO NOTING that market related measures should be adopted and implemented in accordance with international law, including principles, rights and obligations established in WTO Agreements, and be implemented in a fair, transparent and non-discriminatory manner;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the IOTC Agreement, the following:

Identification

1. CPCs that import tuna and tuna-like fish products, from the IOTC area of competence, or in whose ports those products are landed or transhipped, should, as much as possible, collect and examine all relevant data on import, landing or transshipment and associated information and submit the following information to the Commission each year at least 60 days prior to the annual meeting of the Commission:
 - i. Names of the vessels that caught, landed and/or transhipped such tuna or tuna-like species products;
 - ii. Flag States of those vessels;
 - iii. Species of tuna and tuna-like species of the products;
 - iv. Areas of catch (Indian Ocean, or other area);
 - v. Product weight by product type;
 - vi. Points of export;
 - vii. Names and addresses of owners of the vessels;
 - viii. Registration number.
2. a) The Commission, through the IOTC Compliance Committee should identify each year:

- i) The CPCs who have repeatedly failed, as stated by the Commission in its annual Plenary, to discharge their obligations under the IOTC Agreement in respect of IOTC Conservation and Management Measures, in particular, by not taking measures or exercising effective control to ensure compliance with IOTC Conservation and Management Measures by the vessels flying their flag; and/or
 - ii) The NCPs who have failed to discharge their obligations under international law to co-operate with IOTC in the conservation and management of tuna and tuna-like species, in particular, by not taking measures or exercising effective control to ensure that their vessels do not engage in any activity that undermines the effectiveness of IOTC Conservation and Management Measures.
- b) These identifications should be based on a review of all information provided in accordance with paragraph 1 or, as appropriate, any other relevant information, such as: the catch data compiled by the Commission; trade information on these species obtained from National Statistics; the IOTC statistical document programme; the list of the IUU vessels adopted by the IOTC, as well as any other information obtained in the ports and on the fishing grounds.
 - c) In deciding whether to make identification, the IOTC Compliance Committee should consider all relevant matters including the history, and the nature, circumstances, extent, and gravity of the act or omission that may have diminished the effectiveness of IOTC Conservation and Management Measures.

Notification

3. The Commission should request CPCs and NCPs concerned to rectify the act or omission identified under paragraph 2 so as not to diminish the effectiveness of the IOTC conservation and management measures.

The Commission should notify identified CPCs and NCPs of the following:

- a) the reason(s) for the identification with all available supporting evidence;
 - b) the opportunity to respond to the Commission in writing at least 30 days prior to the annual meeting of the Commission with regard to the identification decision and other relevant information, for example, evidence refuting the identification or, where appropriate, a plan of action for improvement and the steps they have taken to rectify the situation; and
 - c) in the case of a NCP, an invitation to participate as an observer at the annual meeting where the issue will be considered.
4. The IOTC Secretariat should transmit without delay the Commission's request referred to in paragraph 3 to the identified CPC or NCP. The IOTC Executive Secretary should seek to obtain confirmation from the CPC or NCP that it received the notification. Absence of response from the CPC or NCP concerned within the time limit shall not prevent action from the Commission.

Evaluation and possible actions

5. The IOTC Compliance Committee should evaluate the response of the CPCs or NCPs referred to in paragraph 3 b), together with any new information, and propose to the Commission to decide upon one of the following actions:
 - a) the revocation of the identification;
 - b) the continuation of the identification status of the CPC or NCP; or
 - c) the adoption of non-discriminatory WTO-consistent market related measures in accordance with Article IX paragraph 1 of the IOTC Agreement.

In the case of CPCs, actions such as the reduction of existing quotas or catch limits should be implemented to the extent possible before consideration is given to the application of market related measures referred to in

subparagraph c). Market related measures should be considered only where such actions either have proven unsuccessful or would not be effective.

6. The Commission, through the IOTC Secretariat, should notify the CPCs and NCPs concerned of its decision and the underlying reasons in accordance with the procedures specified in paragraph 4.
7. CPCs should notify the Commission of any measures that they have taken for the enforcement of the non-discriminatory market related measures adopted in accordance with paragraph 5.
8. The Commission should establish annually a list of CPCs and NCPs that have been subject to a non-discriminatory market-related measure pursuant to paragraph 5 and, with respect to NCPs, are considered as Non Cooperating Non-Contracting Parties to IOTC.

Review of market related measures

9. In order for the Commission to adopt the possible lifting of market related measures, the IOTC Compliance Committee should review each year all non-discriminatory market related measures adopted in accordance with paragraph 5. Should this review show that the situation has been rectified the IOTC Compliance Committee should recommend to the Commission the lifting of the non-discriminatory market related measures. Such decisions should in particular take into consideration whether the CPCs and/or NCPs concerned have demonstrated by submitting the necessary evidence that the conditions that led to the adoption of non-discriminatory market related measures are no longer met.
10. Where exceptional circumstances so warrant or where available information clearly shows that, despite the lifting of non-discriminatory market related measures adopted in accordance with paragraph 9, the CPC or NCP concerned continues to diminish the effectiveness of IOTC Conservation and Management Measures, the Commission may immediately decide on action including, as appropriate, the imposition of non-discriminatory market related measures in accordance with paragraph 5. Before making such a decision, the Commission should request the CPC or NCP concerned to discontinue its wrongful conduct and, after verification through the IOTC Secretariat that the CPC or NCP concerned has received such communication, should provide the CPC or NCP with an opportunity to respond within 10 working days. Absence of response from the CPC or NCP concerned within the time limit shall not prevent action from the Commission.



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ACTIVE CMMs ADOPTED AT THE ELEVENTH SESSION OF THE IOTC

2007

RESOLUTION 07/01

TO PROMOTE COMPLIANCE BY NATIONALS OF CONTRACTING PARTIES AND COOPERATING NON-CONTRACTING PARTIES WITH IOTC CONSERVATION AND MANAGEMENT MEASURES

The Indian Ocean Tuna Commission (IOTC),

CONVINCED that illegal, unreported and unregulated (IUU) fishing compromises the objectives of the Agreement for the Establishment of the IOTC;

CONCERNED that some flag States do not comply with their obligations regarding jurisdiction and control according to international law in respect of fishing vessels entitled to fly their flag that carry out their activities in the IOTC area of competence, and that as a result these vessels are not under the effective control of such flag States;

AWARE that the lack of effective control facilitates fishing by these vessels in the area of competence in a manner that undermines the effectiveness of IOTC Conservation and Management Measures, and can lead to IUU fishing activities;

CONCERNED that vessels that carry out activities in the area of competence which do not comply with the IOTC Conservation and Management Measures are benefiting from the support provided by persons subject to the jurisdiction of Contracting Parties and Cooperating Non-Contracting Parties (CPCs), including, *inter alia*, through participation in transshipment, transport and trade of illegally harvested catches or engagement on board or in the management of these vessels;

NOTING that the FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing calls on States to take measures to discourage nationals subject to their jurisdiction from supporting and engaging in any activity that undermines the effectiveness of international Conservation and Management Measures;

RECALLING that CPCs should cooperate in taking appropriate action to deter any activities which are not consistent with the objective of the Agreement;

DESIRING, as a first step, to enhance cooperation between CPCs through facilitating measures being taken against natural or legal persons, subject to their jurisdiction, that have engaged in IUU fishing activities;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. Without prejudice to the primacy of the responsibility of the flag State, the CPCs shall take appropriate measures, subject to and in accordance with their applicable laws and regulations:
 - i) to investigate allegations and/or reports concerning the engagement of any natural or legal persons subject to their jurisdiction in the activities described, *inter alia*, in paragraph 1 of the Resolution 06/01 on Establishing a List of Vessels Presumed to Have Carried Out Illegal, Unreported and Unregulated Fishing in the IOTC Area; [superseded by Resolution 09/03, then Resolution 11/03, then by Resolution 17/03, then by [Resolution 18/03](#)]
 - ii) to take actions in response to any verified activities referred to in paragraph 1 i); and
 - iii) to cooperate for the purpose of implementing the measures and actions referred to in paragraph 1 i).

To this end, relevant agencies of CPCs should cooperate to implement IOTC Conservation and Management Measures and CPCs shall seek the cooperation of the industries within their jurisdiction.

2. To assist with the implementation of this Resolution, CPCs shall submit reports subject to the national laws of confidentiality to the IOTC Secretariat and other CPCs on the actions and measures taken in accordance with paragraph 1, in a timely fashion.
3. These provisions shall be applicable from 1 July 2008. CPCs may voluntarily decide to implement these provisions prior to this date.



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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

ACTIVE CMMs ADOPTED AT THE NINTH SESSION OF THE IOTC

2005

RESOLUTION 05/03

RELATING TO THE ESTABLISHMENT OF AN IOTC PROGRAMME OF INSPECTION IN PORT

The Indian Ocean Tuna Commission (IOTC),

TAKING NOTE of the results of the Intersessional Meeting on an Integrated Control and Inspection Scheme, held in Yaizu, Japan, from 27 to 29 March 2001;

NOTING that there is a general consensus of the Contracting Parties on the fact that the inspection in port is a central element of a control and inspection programme, and that it can be, in particular, an effective tool to fight against IUU fishing;

TAKING INTO ACCOUNT that Contracting Parties have agreed that the implementation of an integrated control and inspection scheme should follow a phased approach;

ADOPTS, in accordance with paragraph 1 of Article IX of the IOTC Agreement, that:

1. All measures provided for under this Resolution shall be taken in accordance with international law.
2. Measures taken by a Port State in accordance with this Agreement shall take full account of the right and the duty of a Port State to take measures, in accordance with international law, to promote the effectiveness of subregional, regional and global Conservation and Management Measures.
3. Each Contracting Party and Cooperating Non-Contracting Party (hereinafter referred to as CPC's) may, *inter alia*, inspect documents, fishing gear and catch on board fishing vessels, when such vessels are voluntarily in its ports or at its offshore terminals. Inspections shall be carried out so that the vessel suffers the minimum interference and inconvenience and that degradation of the quality of the fish is avoided.
4. Each CPC shall, in accordance with the [Resolution 01/03](#) establishing a Scheme to promote compliance by Non-Contracting Party vessels with Resolutions established by the IOTC, adopt regulations in accordance with international law to prohibit landings and transshipments by Non-Contracting Party vessels where it has been established that the catch of the species covered by the Agreement establishing the IOTC has been taken in a manner which undermines the effectiveness of Conservation and Management Measures adopted by the Commission.
5. In the event that a Port State considers that there has been evidence of a violation by a Contracting Party or a Non-Contracting Party vessel of a Conservation and Management Measure adopted by the Commission, the Port State shall draw this to the attention of the Flag State concerned and, as appropriate, the Commission. The Port State shall provide the Flag State and the Commission with full documentation of the matter, including any record of inspection. In such cases, the Flag State shall transmit to the Commission details of actions it has taken in respect of the matter.
6. Nothing in this recommendation affects the exercise by States of their sovereignty over ports in their territory in accordance with international law.
7. While recognising that inspection in port should be carried out in a non-discriminatory basis, in a first place, priority should be given to inspection of vessels from Non-Contracting Parties.
8. Each CPC shall submit electronically to the IOTC Executive Secretary by 1 July of each year, the list of foreign fishing vessels which have landed in their ports tuna and tuna-like species caught in the IOTC area in the preceding year. This information shall detail the catch composition by weight and species landed.
9. IOTC Resolution 02/01 *Relating to the establishment an IOTC programme of inspection in port* is superseded by this Resolution.



Food and Agriculture
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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

RECOMMENDATION 05/07
CONCERNING A MANAGEMENT STANDARD FOR THE TUNA FISHING VESSELS

The Indian Ocean Tuna Commission (IOTC),

RECALLING that the Commission has actively taken various measures and actions to eliminate illegal, unregulated and unreported (IUU) fishing activities by large-scale tuna longline vessels in the IOTC Area;

FURTHER RECALLING that FAO has been taking initiatives to eliminate IUU fishing activities;

RECOGNISING that large-scale tuna vessels shift fishing grounds very easily from the IOTC Area to other Oceans and vice versa and that this highly mobile nature of this fishery makes control and management of this fishery difficult;

FURTHER RECOGNISING that their catches are transferred from the fishing grounds to the market directly without going through the flag countries;

BEING AWARE that most of their Bigeye tuna and Yellowfin tuna catches are exported to Contracting Parties and Cooperating Non-Contracting Parties (hereinafter referred to as CPCs);

NOTING, with grave concern, that many IUU large-scale tuna vessels still survive by shifting their flags from Non-Contracting Parties to CPC's with less management ability, and by changing their vessel names and nominal owners to evade international efforts to eliminate these vessels;

FURTHER NOTING that the lack of a minimum management standard of the Commission allows such shifting to CPCs;

RECOGNISING the urgent necessity of undertaking due measures so as not to use Contracting Parties as shelters of such vessels,

RECOMMENDS, in accordance with paragraph 8 of Article IX of the IOTC Agreement, that:

1. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) should take measures to meet the minimum management standard (**Annex I**) when they issue fishing licenses to their "authorised fishing vessels" (AFVs as defined in Resolution 05/02 [~~superseded by Resolution 07/02, then Resolution 12/02~~]).
2. All CPCs should cooperate with those CPCs which issue licenses to their AFVs to meet the above standard.
3. The CPC flag states which issues licenses to their AFVs should report annually to the Commission all measures taken according to paragraph 1 using the format shown in **Annex II**.

ANNEX I

IOTC Management Standard for the AFVs

The Contracting Parties and Cooperating Non-Contracting Parties , should:

Management in the fishing grounds

- i. Monitor and inspect, where appropriate through patrol boats and maintain surveillance of the activities of its vessels in order to ensure compliance with IOTC's Conservation and Management Measures;
- ii. Deploy if appropriate, scientific observers on-board the vessels according to the Commission's Resolution;
- iii. Require the installation of satellite-based vessel monitoring systems on board the AFVs operating in the IOTC Area according to the Commission's Resolution 02/02 **[superseded by Resolution 06/03, then by Resolution 15/03]**;
- iv. Require a report of their entry/exit to and from the management areas and the IOTC Area, unless otherwise indicated through use of a vessel monitoring system;
- v. Require a daily or periodical report of the vessel's catches of species to which catch limits are applicable.

Management of transshipment (from the fishing grounds to the landing ports)

- i. Require a report of any transshipment of the vessel's catches by species and by management area;
- ii. Conduct port inspection according to the Commission's [Resolution 05/03](#);
- iii. Implement statistical document programs according to the Commission's Resolutions [01/06](#) and [03/03](#).

Management at landing ports

- i. Collect landing and transshipment data to verify catch data, if appropriate, through cooperation with other Contracting Parties and Cooperating Non-Contracting Parties ;
- ii. Require a report of landings of their catches by species and by management area.

ANNEX II

Model format for annual reporting of implementation of the IOTC management standard for AFVs

a. Management in the fishing grounds

	<i>Scientific Observer boarding</i>	<i>Satellite-based vessel monitoring system</i>	<i>Daily or required periodic catch report</i>	<i>Entry/Exit report</i>
Yes, No				
Note	%	% or number of vessels	Method	Method

b. Management of transshipment (from the fishing grounds to the landing ports)

	<i>Transshipment report</i>	<i>Port inspection</i>	<i>Statistical document program</i>
Yes, No			
Note	Method	Method	

c. Management at landing ports

	<i>Landing inspection</i>	<i>Landing reporting</i>	<i>Cooperation with other Parties</i>
Yes, No			
Note	Method	Method	



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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

iotc ctoi

ACTIVE CMMs ADOPTED AT THE EIGHTH SESSION OF THE IOTC

2003

RESOLUTION 03/01
ON THE LIMITATION OF FISHING CAPACITY OF CONTRACTING PARTIES AND COOPERATING
NON-CONTRACTING PARTIES

The Indian Ocean Tuna Commission (IOTC),

RECALLING the adoption of FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas;

RECOGNISING that paragraph 1 of the Resolution 99/01 [superseded by [Resolution 14/01](#)] *On the Management of Fishing Capacity and on the Reduction of the Catch of Juvenile Bigeye Tuna by Vessels, including Flag of Convenience Vessels, Fishing for Tropical Tunas in the IOTC area of competence*, adopted at the 4th Session of the Commission, stipulate that the 2000 IOTC Session would consider the limitation of the capacity of the fleet of large-scale tuna vessels (greater than 24 m LOA) to the appropriate level;

RECALLING the adoption by IOTC in 2001 of the Resolution 01/04 [superseded by [Resolution 14/01](#)] on limitation of fishing effort of non-Members of IOTC whose vessels fish Bigeye tuna;

RECOGNISING that the IOTC Scientific Committee recommended that a reduction in catches of Bigeye tuna from all gears should be implemented as soon as possible; that the stock of Yellowfin tuna is being exploited close to, or possibly above MSY; and that the level of fishing effort of swordfish should not be increased;

RECOGNISING that FAO International Plan of Action for the Management of the Fishing Capacity (IPOA) provides, in its Objectives and Principles that "States and Regional Fisheries Organisations confronted with an overcapacity problem, where capacity is undermining achievement of long-term sustainability outcomes, should endeavour initially to limit at present level and progressively reduce the fishing capacity applied to affected fisheries";

TAKING INTO ACCOUNT the need to have due regard for the interests of all Members concerned, in conformity with the rights and obligations of those Members under international law and in particular, to the rights and obligations of developing countries of the Indian Ocean rim with respect to entry into the high-seas fisheries in the IOTC area of competence;

ADOPTS, in accordance with the provisions of Article IX, paragraph 1 of the Agreement establishing the IOTC, that:

1. Contracting Parties and Cooperating Non-Contracting Parties (CPCs) which have more than 50 vessels on the 2003 IOTC Record of Vessels, shall limit in 2004 and following years, the number of their fishing vessels larger than 24 meters length overall (hereafter LSFVs) to the number of its fishing vessels registered in 2003 in the IOTC Record of Vessels¹.
2. This limitation of number of vessels shall be commensurate with the corresponding overall tonnage expressed in GRT (Gross Registered Tonnage) or in GT (Gross Tonnage) and, where vessels are replaced, the overall tonnage shall not be exceeded.
3. Other CPCs which have the objective of developing their fleets above those authorisations currently foreseen under administrative processes, will draw up, a fleet development plan in accordance with the provisions of Resolution 02/05 [superseded by [Resolution 05/02](#), then [Resolution 07/02](#), then [Resolution 13/02](#), then [Resolution 14/04](#), then by [Resolution 15/04](#), then by [Resolution 19/04](#)]. This Plan shall be submitted to the

¹ Including authorisations currently foreseen under administrative process

Commission for information and record at the 2004/05 Sessions and should define, *inter alia*, the type, size and origin of the vessels and the programming of their introduction into the fisheries.

4. In relation to the foregoing, the Commission took note of the interests of the developing coastal States, in particular small island developing States and territories within the IOTC Convention Area [area of competence] whose economies depend largely on fisheries.

RESOLUTION 03/03
CONCERNING THE AMENDMENT OF THE FORMS OF THE IOTC STATISTICAL DOCUMENTS

The Indian Ocean Tuna Commission (IOTC),

NOTING that the Resolution 02/05 [superseded by Resolution 05/02, then by Resolution 07/02, then by Resolution 13/02, then by Resolution 14/04, then by Resolution 15/04, then by [Resolution 19/04](#)] Concerning the Establishment of an IOTC Record of Vessels over 24 metres Authorised to Operate in the IOTC Area prescribes that both exporting and importing CPC shall cooperate to ensure to avoid the forgery or misinformation of the statistical documents;

RECOGNISING that additional information such as vessel length is necessary for better implementation of Commission's Conservation and Management Measures and for the smooth implementation of the Resolution 02/05;

ADOPTS, in accordance with paragraph 1 of Article IX of IOTC Agreement, that:

The sample forms of the statistical documents and instruction sheets in the [Resolution 01/06](#) *Concerning the IOTC Bigeye tuna statistical document programme* shall be replaced by the attached forms and instructions respectively.

The Commission shall communicate with other relevant regional fishery management bodies which established the statistical document programs and the authorised vessel records and request them to implement the similar reform.

ANNEX I

REQUIREMENTS CONCERNING THE IOTC BIGEYE TUNA STATISTICAL DOCUMENT

1. The sample form of the IOTC Bigeye Tuna Statistical Document shall be as in the Appendix.
2. Customs or other appropriate government officials will request and inspect all import documentation including the IOTC Bigeye Tuna Statistical Document for all Bigeye tuna in the shipment. Those officials may also inspect the content of each shipment to verify the information on the document.
3. Only complete and valid documents will guarantee that shipments of Bigeye tuna will be allowed to enter the territory of Contracting Parties.
4. Shipments of Bigeye tuna that are accompanied by improperly documented Bigeye Tuna Statistical Documents (i.e., improperly documented means that the Bigeye Tuna Statistical Document is either missing from the shipment, incomplete, invalid or falsified) will be considered illegitimate shipments of Bigeye tuna, that are contrary to IOTC conservation efforts, and their entry will be suspended (PENDING RECEIPT OF A PROPERLY COMPLETED DOCUMENT) into the territory of a Contracting Party or subject to administrative or other sanction.
5. The import of fish parts other than the meat, i.e., head, eyes, roe, guts, tails may be allowed without the document.

APPENDIX

DOCUMENT NUMBER	IOTC BIGEYE TUNA STATISTICAL DOCUMENT				
EXPORT SECTION					
1. FLAG OF COUNTRY/ENTITY/FISHING ENTITY					
2. DESCRIPTION OF VESSEL AND REGISTRATION NUMBER (if applicable)					
Vessel Name					
Registration Number					
LOA (m)					
IOTC Record No. (if applicable) :					
3. TRAPS (if applicable)					
4. POINT OF EXPORT (City, State / Province, Country / Entity / Fishing Entity)					
5. AREA OF CATCH (check one of the following)					
(a) Indian (b) Pacific (c) Atlantic					
* In case of (b) or (c) checked, the item 6 and 7 below do not need to be filled out.					
6. DESCRIPTION OF FISH					
Product Type (*1)		Time of Harvest	Gear (*2)	Code	Net Weight
F/FR	D/GG/DR/FL/OT	(mm/yy)			(Kg)

<p>*1= F=Fresh, FR=Frozen, RD=Round, GG=Gilled and Gutted, DR=Dressed, FL=Fillet OT=Other, describe the type of product *2= When the Gear Code is OT, describe the type of gear,</p>				
<p>7. EXPORTER CERTIFICATION I certify that the above information is complete, true, and correct to the best of my knowledge and belief.</p> <p>Name: Company name: Address: Signature: Date: License Number (if applicable):</p>				
<p>8. GOVERNMENT VALIDATION I validate that information listed above is complete, true, and correct to the best of my knowledge and belief.</p> <p>Total weight of the shipment: Kg</p> <p>Name & Title: Signature: Date: Government Seal</p>				
<p>IMPORT SECTION: IMPORTER CERTIFICATION I certify that the above information is complete, true, and correct to the best of my knowledge and belief.</p> <p>Importer Certification (Intermediate Country / Entity / Fishing Entity)</p> <p>Name: Address: Signature: Date: License # (if applicable):</p> <p>Importer Certification (Intermediate Country / Entity / Fishing Entity)</p> <p>Name: Address: Signature: Date: License # (if applicable):</p> <p>Final Point of Import</p> <p>City: State/Province: Country / Entity / Fishing Entity:</p>				

NOTE: If a language other than English or French is used in completing this form, please add an English translation of this document...

INSTRUCTIONS:

DOCUMENT NUMBER: Block for the issuing Country to designate a country coded Document Number.

- (1) **FLAG COUNTRY/ENTITIES/FISHING ENTITIES:** Fill in the name of the country of the vessel that harvested the Bigeye tuna in the shipment and issued this Document. According to the Recommendation, only the flag state of the vessel that harvested the Bigeye tuna in the shipment or, if the vessel is operating under a charter arrangement, the exporting state can issue this Document.
- (2) **DESCRIPTION OF VESSEL (if applicable):** Fill in the name and registration number, length overall (LOA) and IOTC Record number of the vessel that harvested the Bigeye tuna in the shipment.
- (3) **TRAPS (if applicable):** Fill in the name of the trap that harvested the Bigeye tuna in the shipment.
- (4) **POINT OF EXPORT:** Identify the City, State or Province, and Country from which the Bigeye tuna was exported.
- (5) **AREA OF CATCH:** Check the area of catch. (If (c) or (d) checked, items 6 and 7 below do not need to be filled out.)
- (6) **DESCRIPTION OF FISH:** The exporter must provide, to the highest degree of accuracy, the following information.

NOTE: One row should describe one product type

- (1) **Product Type:** Identify the type of product being shipped as either FRESH or FROZEN, and in ROUND, GILLED AND GUTTED, DRESSED, FILLET or OTHER form. For OTHER, describe the type of products in the shipment.
- (2) **Time of Harvest:** Fill in the time of harvest (in month and year) of the Bigeye tuna in the shipment
- (3) **Gear Code:** Identify the gear type which was used to harvest the Bigeye tuna using the list below. For OTHER TYPE, describe the type of gear, including farming.
- (4) Net product weight: in kilograms.
- (5) **EXPORTER CERTIFICATION:** The person or company exporting the Bigeye tuna shipment must provide his/her name, company name, address, signature, date the shipment was exported, and dealer license number (if applicable).
- (6) **GOVERNMENT VALIDATION:** Fill in the name and full title of the official signing the Document. The official must be employed by a competent authority of the flag state government of the vessel that harvested the Bigeye tuna appearing on the Document or other individual or institution authorised by the flag state. When appropriate, this requirement is waived according validation of the document by a government official, or if the vessel is operating under a charter arrangement, by a government official or other authorised individual or institution of the exporting state. The total weight of the shipment shall also be specified in this block.
- (7) **IMPORTER CERTIFICATION:** The person or company that imports Bigeye tuna must provide his/her name, address, signature, date the Bigeye tuna was imported, license number (if applicable), and final point of import. This includes imports into intermediate countries. For fresh and chilled products, the signature of the importer may be substituted by a person of a customs clearance company when the authority for signature is properly accredited to it by the importer.



GEAR CODE:

GEAR CODE	GEAR TYPE,
BB	BAITBOAT
GILL	GILLNET
HAND	HANDLINE
HARP	HARPOON
LL	LONGLINE
MWT	MID-WATER TRAWL
PS	PURSE SEINE
RR	ROD AND REEL
SPHL	SPORT HANDLINE
SPOR	SPORT FISHERIES UNCLASSIFIED
SURF	SURFACE FISHERIES UNCLASSIFIED
TL	TENDED LINE
TRAP	TRAP
TROL	TROLL
UNCL	UNSPECIFIED METHODS
OT	OTHER TYPE

RETURN A COPY OF COMPLETED DOCUMENT TO: (the name of the office of the competent authority of the flag state).

ANNEX II

REQUIREMENTS CONCERNING THE IOTC BIGEYE TUNA RE-EXPORT CERTIFICATE

1. The sample form of the IOTC Bigeye Tuna Re-export Certificate shall be as in the Appendix.
2. Customs or other appropriate government officials will request and inspect all import documentation including the IOTC Bigeye Tuna Re-export Certificate for all Bigeye tuna in the shipment. Those officials may also inspect the content of each shipment to verify the information on the document.
3. Only complete and valid documents will guarantee that shipments of Bigeye tuna will be allowed to enter the territory of Contracting Parties.
4. A Contracting Party shall be free to validate IOTC Bigeye Tuna Re-export Certificates for Bigeye tuna imported by that Contracting Party, to which IOTC Bigeye Tuna Statistical Documents or IOTC Bigeye Tuna Re-export Certificates are attached. IOTC Bigeye Tuna Re-export Certificates shall be validated by government organisations or by recognised institutions which are accredited by a Contracting Party's government to validate the IOTC Bigeye Tuna Statistical Document. A copy of the original Bigeye Tuna Statistical Document accompanying the imported Bigeye tuna must be attached to an IOTC Bigeye Tuna Re-export Certificate. The copy of the original Bigeye Tuna Statistical Document so attached must be verified by that government organisation or by that recognised institution accredited by a government which validated the IOTC Bigeye Tuna Statistical Document. When re-exported Bigeye tuna is again re-exported, all copies of documents, including a verified copy of a Statistical Document and Re-export Certificate which accompanied that Bigeye tuna upon importation, must be attached to a new Re-export Certificate to be validated by a re-exporting Contracting Party. All copies of the Documents to be attached to that new Re-export Certificate must be also be verified by a government organisation or a recognised institution accredited by a government which validated the IOTC Bigeye Tuna Statistical Document.
5. Shipments of Bigeye tuna that are accompanied by improperly documented Bigeye Tuna Re-export Certificate (i.e., improperly documented means that the Bigeye Tuna Re-export Certificate is either missing from the shipment, incomplete, invalid or falsified) will be considered illegitimate shipments of Bigeye tuna, that are contrary to IOTC conservation efforts, and their entry will be suspended (PENDING RECEIPT OF A PROPERLY COMPLETED DOCUMENT) into the territory of a Contracting Party or subject to administrative or other sanction.
6. IOTC Contracting Parties that validate Re-export Certificates in accordance with the procedure set forth in paragraph 4 shall require from the re-exporting Bigeye tuna dealer necessary documents (e.g. written sales contracts) which are to certify that the Bigeye tuna to be re-exported corresponds to the imported Bigeye tuna. Contracting Parties which validate Re-export Certificates shall provide flag states and importing states with evidence of this correspondence upon their request.
7. The import of fish parts other than the meat, i.e., head, eyes, roe, guts, tails may be allowed without the document.



APPENDIX

DOCUMENT NUMBER		IOTC BIGEYE TUNA RE-EXPORT CERTIFICATE		
RE-EXPORT SECTION:				
1. RE-EXPORTING COUNTRY / ENTITY / FISHING ENTITY				
2.POINT OF RE-EXPORT				
3.DESRIPTION OF IMPORTED FISH				
Product Type(*)		Net Weight	Flag country/	Date of Import
F/FR	RD/GG/DR/FL/OT	(Kg)	Entity/Fishing Entity	
4.DESRIPTION OF FISH FOR RE-EXPORT				
Product Type(*)		Net Weight		
F/FR	RD/GG/DR/FL/OT	(Kg)		
*F=FRESH, FR=Frozen, RD=Round, GG=Gilled and Guttred, DR=Dressed, FL=Fillet OT=Other(Describe the type of product)				
5. RE-EXPORTER CERTIFICATION: <u>I certify that the above information is complete, true and correct to the best of my knowledge and belief.</u>				
Name/Company Name	Address	Signature	Date	License Number (if applicable)
6. GOVERNMENT VALIDATION: <u>I validate that the above information is complete, true and correct to the best of my knowledge and belief.</u>				
Name & Title	Signature	Date	Government Seal	

IMPORT SECTION:

7. IMPORTER CERTIFICATION: I certify that the above information is complete, true and correct to the best of my knowledge and belief.

Importer Certification (Intermediate Country / Entity / Fishing Entity)

Name: Address: Signature: Date: License # (if applicable)

Importer Certification (Intermediate Country / Entity / Fishing Entity)

Name: Address: Signature: Date: License # (if applicable)

Importer Certification (Intermediate Country / Entity / Fishing Entity)

Name: Address: Signature: Date: License # (if applicable)

Final Point of Import

City: State/Province: Country / Entity / Fishing Entity:

NOTE: If a language other than English or French is used in completing this form, please add the English translation of this document.

INSTRUCTIONS

DOCUMENT NUMBER: Block for the issuing Country/Entity/Fishing Entity to designate a Country/Entity/Fishing Entity coded document number.

(1) RE-EXPORTING COUNTRY/ENTITY/FISHING ENTITY

Fill in the name of the Country/Entity/Fishing Entity which re-exports the Bigeye tuna in the shipment and issued this Certificate. According to the Recommendation, only the re-exporting Country/Entity/Fishing Entity can issue this Certificate.

(2) POINT OF RE-EXPORT

Identify the City/State Province and Country/Entity/Fishing Entity from which the Bigeye tuna was re-exported.

(3) DESCRIPTION OF IMPORTED FISH

The exporter must provide, to the highest degree of accuracy, the following information: NOTE: One row should describe one product type. (1) Product type: Identify the type of product being shipped as either FRESH or FROZEN, and in ROUND, GILLED AND GUTTED, DRESSED, FILLET or OTHER form. For OTHER, describe the type of products in the shipment. (2) Net weight: Net product weight in kilograms. (3) Flag Country/Entity/Fishing Entity: the name of the Country/Entity/Fishing Entity of the vessel that harvested the Bigeye tuna in the shipment. (4) Date of import: Imported date.

(4) DESCRIPTION OF FISH FOR RE-EXPORT

The exporter must provide, to the highest degree of accuracy, the following information: NOTE: One row should describe one product type. (1) Product type: Identify the type of product being shipped as either FRESH or FROZEN, and in ROUND, GILLED AND GUTTED, DRESSED FILLET or OTHER form. For OTHER, describe the type of products in the shipment. (2) Net weight: Net product weight in kilograms.

(5) RE-EXPORTER CERTIFICATION

The person or company re-exporting the Bigeye tuna shipment must provide his/her name, address, signature, date the shipment was re-exported, and re-exporter's license number (if applicable).

(6) GOVERNMENT VALIDATION

Fill in the name and full title of the official signing the Certificate. The official must be employed by a competent government authority of the re-exporting Country/Entity/Fishing Entity appearing on the Certificate, or other individual or institution authorised to validate such certificates by the competent government authority.

(7) IMPORTER CERTIFICATION

The person or company that imports Bigeye tuna must provide his/her name, address, signature, date the Bigeye tuna was imported, license number (if applicable) and re-exported final point of import. This includes imports into intermediate Countries/Entities/Fishing Entities. For fresh and chilled products, the signature of the importer may be substituted by a person of a customs clearance company when the authority for signature is properly accredited to it by the importer.

RETURN A COPY OF THE COMPLETED CERTIFICATE TO: (the name of the office of the competent authority of the re-exporting Country/Entity/Fishing Entity).

ANNEX III

REPORT OF THE IOTC BIGEYE TUNA STATISTICAL DOCUMENT

Period _____ to _____, _____ IMPORT COUNTRY/ENTITY/FISHING ENTITY _____
 Month Month Year

Flag Country/Entity/ Fishing Entity	Area Code	Gear Code	Point of Export	Product Type		Product Wt.(Kg)
				F/FR	RD/GG/DR/FL/OT	

Gear Code Gear Type

BB Baitboat

GILL Gillnet

HAND Handline

HARP Harpoon

LL Longline

MWT Mid-water trawl

PS Purse seine

RR Rod & reel

SPHL Sport Handline

SPOR Sport fisheries unclassified

SURF Surface fisheries unclassified

TL Tended line

TRAP Trap

TROL Troll

UNCL Unclassified methods

OTH Other type (Indicate the type of gear):

Product type

F Fresh

FR Frozen

RD Round AT Atlantic

GG Gilled & gutted

DR Dressed

FL Fillet

OT Other form, describe the type of products in the shipment

Area Code

ID Indian Ocean

PA Pacific Ocean

AT Atlantic Ocean



REPORT OF THE IOTC BIGEYE TUNA RE-EXPORT CERTIFICATE

Period _____ to _____, _____ IMPORT COUNTRY/ENTITY/FISHING ENTITY _____

Month Month Year

Flag Country/Entity/Fishing Entity	Re-export Country/Entity/Fishing Entity	Point of Re-export	Product Type		Product Wt.(Kg)
			F/FR	RD/GG/DR/FL/OT	

Product type

- | | | | |
|----|---|-----------|--------------|
| F | Fresh | Area Code | |
| FR | Frozen | ID | Indian Ocean |
| RD | Round | PA | Pacific |
| GG | Gilled & gutted | AT | Atlantic |
| DR | Dressed | | |
| FL | Fillet | | |
| OT | Other form, describe the type of products in the shipment | | |

ANNEX IV

INFORMATION ON VALIDATION OF IOTC STATISTICAL DOCUMENTS

1. Flag
2. Government/Authority Organisation(s) accredited to validate Statistical Documents

<i>Organisation Name</i>	<i>Organisation Address</i>	<i>Sample Seal</i>

NOTE: For each organisation, attach a list with the names, titles and addresses of the individuals authorised to validate Documents.

3. Other institutions accredited by the government/authority to validate Statistical Documents

<i>Organisation Name</i>	<i>Organisation Address</i>	<i>Sample Seal</i>

NOTE: For each organisation, attach a list with the names, titles and addresses of the individuals authorised to validate Documents.

INSTRUCTIONS:

Contracting Parties, Non-Contracting Parties, Entities, Fishing Entities having vessels that harvest species whose international trade must be accompanied by Statistical Documents are requested to submit the information on this sheet to the Executive Secretary of IOTC*, and to ensure that any changes to the above are also transmitted to the IOTC Executive Secretary on a timely fashion.

* IOTC-Secretariat@fao.org



ACTIVE CMMs ADOPTED AT THE SIXTH SESSION OF THE IOTC

2001

RESOLUTION 01/03

ESTABLISHING A SCHEME TO PROMOTE COMPLIANCE BY NON-CONTRACTING PARTY VESSELS WITH RESOLUTIONS ESTABLISHED BY IOTC

The Indian Ocean Tuna Commission (IOTC),

TAKING NOTE of the results of the Intersessional Meeting on an Integrated Control and Inspection Scheme, held in Yaizu, Japan, from 27 to 29 March 2001.

TAKING NOTE of the need to fight against illegal, unregulated and unreported fisheries (IUU).

TAKING INTO ACCOUNT that Contracting Parties have agreed that the implementation of an integrated control and inspection scheme should follow a phased approach.

ADOPTS, in accordance with the provisions of Article IX of the Agreement creating the IOTC, the following:

1. Any observation by a Contracting Party vessel or aircraft of Non-Contracting Party, Entity or fishing Entity vessels, indicating that there are grounds for believing that these vessels are fishing contrary to IOTC Conservation or Management Measures, shall be reported immediately to the appropriate authorities of the flag-State making the observation. The Contracting Party shall then notify immediately the appropriate authorities of the flag-State of the vessel fishing. Each Contracting Party making the observation shall also immediately notify the IOTC Secretariat, which, in turn, shall notify the other Contracting Parties.
2. A vessel flying the flag of a Non-Contracting Party, Entity or fishing Entity, which has been sighted in the IOTC Area, in conformity with the conditions of paragraph 1, is presumed to be undermining IOTC Conservation and Management Measures.
3. When a vessel of a Non-Contracting Party, Entity or fishing Entity referred to in paragraph 2 enters voluntarily a port of any Contracting Party, it shall be inspected by authorised Contracting Party officials knowledgeable of IOTC measures and shall not be allowed to land or tranship any fish until this inspection has taken place. Such inspections shall include the vessel's documents, logbooks, fishing gear, catch on board and any other matter relating to the vessel's activities in the IOTC Area.
4. Landings and transhipments of all fish from vessels of a Non-Contracting Party, Entity or fishing Entity which have been inspected pursuant to paragraph 3 shall be prohibited in all Contracting Party ports if such inspection reveals that the vessel has onboard species subject to IOTC Conservation or Management Measures, unless the vessel establishes that the fish were caught outside the IOTC Area or in compliance with the relevant IOTC Conservation and Management Measures and requirements under the Agreement.
5. Information on the results of all inspections of vessels of Non-Contracting Parties, Entities or fishing Entities, conducted in the ports of Contracting Parties, and any subsequent action, shall be transmitted immediately to the Commission. The IOTC Secretariat shall transmit this information to all Contracting Parties and to the relevant flag-State(s).

RESOLUTION 01/06
CONCERNING THE IOTC BIGEYE TUNA STATISTICAL DOCUMENT PROGRAMME

The Indian Ocean Tuna Commission (IOTC),

RECOGNISING the authority and responsibility of IOTC to manage Bigeye tuna in the IOTC area of competence (“Convention Area”), at the international level;

RECOGNISING ALSO the nature of the international market for Bigeye tuna in the Convention Area;

RECOGNISING ALSO that there is uncertainty on the catch of Bigeye tuna in the Convention Area and that the availability of trade data would greatly assist in reducing such uncertainty;

RECOGNISING ALSO that Bigeye tuna is the main target species of “flag of convenience” fishing operations and that most of the Bigeye tuna harvested by such fishing vessels are exported to Contracting Parties, especially to Japan;

RECALLING that the International Commission for the Conservation of Atlantic Tunas (ICCAT) has established its Bluefin Tuna, Bigeye Tuna and Swordfish Statistical Document Programs, and that the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) has also established its Southern Bluefin Tuna Statistical Document Programme;

RECOGNISING that the Statistical Document Programme is an effective tool to assist the Commission’s effort for the elimination of IUU fishing operations;

RECOMMENDS, in accordance with paragraph 1 of Article IX of the Agreement, that,

1. Contracting Parties, by July 1, 2002 or as soon as possible thereafter, require that all Bigeye tuna, when imported into the territory of a Contracting Party, be accompanied by an IOTC Bigeye Tuna Statistical Document which meets the requirements described in **Annex I** or an IOTC Bigeye Tuna Re-export Certificate which meets the requirements described in **Annex II**. Bigeye tuna caught by purse seiners and pole and line (bait) vessels and destined principally for the canneries in the Convention Area are not subject to this statistical document requirement. The Commission and the Contracting Parties importing Bigeye tuna shall contact all the exporting countries to inform them of this Programme in advance of the implementation of the Programme.
2. 1) The IOTC Bigeye Tuna Statistical Document must be validated by a government official or other authorised individual or institution of the flag State of the vessel that harvested the tuna, or, if the vessel is operating under a charter arrangement, by a government official or other authorised individual of the exporting state, and;
2) The IOTC Bigeye Tuna Re-export Certificate must be validated by a government official or other authorised individual or institution of the state that re-exported the tuna.
3. Each Contracting Party shall provide to the IOTC Executive Secretary sample forms of its statistical document and re-export certificate required with Bigeye tuna imports and information on validation in the format specified in **Annex IV**, and inform him/her of any change in a timely fashion.
4. The Contracting Parties which export or import Bigeye tuna shall compile data from the Programme.
5. The Contracting Parties which import Bigeye tuna shall report the data collected by the Programme to the IOTC Executive Secretary each year by April 1 for the period of July 1 – December 31 of the preceding year and October 1 for the period of January 1 – June 30 of the current year, which shall be circulated to all the Contracting Parties by the IOTC Executive Secretary. The formats of the report are attached as **Annex III**.
6. The Contracting Parties which export Bigeye tuna shall examine export data upon receiving the import data mentioned in paragraph 5 above from the IOTC Executive Secretary, and report the results to the Commission annually.

7. The Contracting Parties should exchange copies of statistical documents and re-export certificates to facilitate the examination mentioned in paragraph 6, consistent with domestic laws and regulations.
8. The Commission shall request Cooperating Non-Contracting Parties to take the measures described in the above paragraphs.
9. The IOTC Executive Secretary shall request information on validation from all the Non-Contracting Parties/Entities/Fishing Entities fishing and exporting Bigeye tuna to Contracting Parties, and request them to inform him/her in a timely fashion of any changes to the information provided.
10. The IOTC Executive Secretary shall maintain and update information specified in paragraphs 3 and 9 and provide it to all the Contracting Parties, and promptly circulate any changes.
11. The Commission shall request the Non-Contracting Parties which import Bigeye tuna to cooperate with implementation of the Programme and to provide to the Commission data obtained from such implementation.
12. Implementation of this Programme shall be in conformity with relevant international obligations.
13. At the initial stage of the programme, the statistical documents and the re-export certificates will be required for frozen Bigeye tuna products. Prior to implementing this Programme for fresh products, several practical problems need to be solved, such as guidelines to ensure procedures to handle fresh products at customs.
14. The statistical documents for Bigeye tuna caught by fishing vessels flying the flag of a Member State of the European Community may be validated by the competent authorities of the Member State whose flag the vessel flies or by those of a different Member State where the products are landed, provided the corresponding quantities of Bigeye tuna are exported outside the Community from the territory of the Member State of landing.
15. Notwithstanding the provisions of Article IX, paragraph 4, of the Agreement, the Contracting Parties shall implement this recommendation [resolution] by July 1, 2002 or as soon as possible thereafter in accordance with the regulatory procedures of each Contracting Party.

ANNEX I TO ANNEX IV

NOTE: The sample forms of the statistical documents and instruction sheets in [Resolution 01/06](#) concerning the IOTC Bigeye tuna statistical document programme have been superseded by those contained in [Resolution 03/03](#).



Food and Agriculture
Organization of the
United Nations



Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

iotc ctoi

ACTIVE CMMs ADOPTED AT THE FOURTH SESSION OF THE IOTC

1999

RESOLUTION 99/02

CALLING FOR ACTIONS AGAINST FISHING ACTIVITIES BY LARGE SCALE FLAG OF CONVENIENCE LONGLINE VESSELS

The Indian Ocean Tuna Commission (IOTC),

RECALLING that IOTC adopted at its 1998 meeting the Recommendation Concerning Registration and Exchange of Information on Vessels, including Flag of Convenience Vessels, Fishing for Tropical Tunas in the IOTC area of competence;

CONCERNED that fishing activities by large scale flag of convenience (FOC) tuna longline fishing vessels in the IOTC Areas have continued and increased, and that such activities diminish the effectiveness of IOTC Conservation and Management Measures;

RECOGNISING that there is evidence to indicate that many owners of vessels engaged in such fishing activities have reflagged their vessels to avoid compliance with IOTC Conservation and Management Measures;

AWARE that most of these vessels are owned and operated by Taiwan, Province of China (TPC) entities while almost all of their products are being exported to Japan;

WELCOMING the work now underway in FAO to develop an international Plan of Action to combat illegal, unregulated and unreported (IUU) fishing including FOC;

DETERMINED that further action must be taken to deter FOC fishing activities;

RESOLVES as follows:

1. The Contracting Parties and Non-Contracting Parties Cooperating with the IOTC shall ensure that large-scale tuna longline vessels under their registry do not engage in IUU fishing activities (e.g. by means of denying such vessels a license to fish).
2. The Contracting Parties and Cooperating Non-Contracting Parties of the IOTC shall refuse landing and transshipment by FOC vessels which are engaged in fishing activities diminishing the effectiveness of measures adopted by IOTC.
3. The Contracting Parties and Cooperating Non-Contracting Parties of the IOTC shall take every possible action, consistent with their relevant laws,
 - to urge their importers, transporters and other concerned business people to refrain from transacting in and transshipping tunas and tuna-like species caught by vessels carrying out FOC fishing activities;
 - to inform their general public of FOC fishing activities by tuna longline vessels which diminish the effectiveness of IOTC Conservation and Management Measures and urge them not to purchase fish harvested by such vessels; and
 - to urge their manufacturers and other concerned business people to prevent their vessels and equipment/devices from being used for FOC longline fishing operations.
4. The Commission urges all Non-Contracting Parties, entities or fishing entities not referred to above to act in conformity with operative paragraphs 1, 2 and 3 of this Resolution.
5. The Commission encourages monitoring and exchange of information concerning FOC fishing activities including the port sampling activity conducted by the IOTC Secretariat.
6. The Commission urges States and fishing entities whose FOC fishing vessels are engaged in fishing activities diminishing the effectiveness of measures adopted by IOTC, to repatriate or scrap such vessels. The Commission also urges Japan, in cooperation with such states and fishing entities, to scrap Japan-built vessels engaged in FOC fishing activities.



7. The Commission instructs the IOTC Secretariat to prepare possible measures including trade restrictive measures to prevent or eliminate FOC fishing activities.
8. The legal joint venture operation of vessels by Contracting Parties should not be construed as FOC fishing as long as it does not diminish the effectiveness of measures adopted by IOTC.
9. Due consideration shall be given to the interests of coastal nations.

APPENDIX I

HISTORY OF ALL CONSERVATION AND MANAGEMENT MEASURES ADOPTED BY THE COMMISSION

Resolution or Recommendation number	Conservation and Management Measure	Status	Supersedes
2023			
<u>Resolution 23/01</u>	On the management of anchored fish aggregating devices (AFADs)	ACTIVE	
<u>Resolution 23/03</u>	On Establishing a Voluntary Fishing Closure in the Indian Ocean for the Conservation of Tropical Tunas	ACTIVE	
<u>Resolution 23/04</u>	On Establishing Catch Limits for Bigeye Tuna in the Area of IOTC Competence	ACTIVE	Resolution 05/01
<u>Resolution 23/05</u>	On Establishing a Programme for Transshipment by Large-scale Fishing Vessels	ACTIVE	Resolution 22/02
<u>Resolution 23/06</u>	On the Conservation of Cetaceans	ACTIVE	Resolution 13/04
<u>Resolution 23/07</u>	On Reducing the Incidental Bycatch of Seabirds in Longline Fisheries	ACTIVE	
<u>Resolution 23/08</u>	On Electronic Monitoring Standards for IOTC Fisheries	ACTIVE	
<u>Resolution 23/09</u>	On a Fish Aggregating Devices (FADs) Working Group	ACTIVE	
<u>Resolution 23/10</u>	Terms of Reference for a Working Party on Socio-Economics	ACTIVE	
<u>Recommendation 23/11</u>	To Enhance Cooperation in the Indian Ocean Tuna Commission Decision Making Process	ACTIVE	
2022			
<u>Resolution 22/01</u>	On Climate Change as it Relates to the Indian Ocean Tuna Commission	ACTIVE	
<u>Resolution 22/03</u>	On a Management Procedure for Bigeye Tuna in the IOTC Area of Competence	ACTIVE	
<u>Resolution 22/04</u>	On a Regional Observer Scheme	ACTIVE	Resolution 11/04
2021			
<u>Resolution 21/01</u>	On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of competence	ACTIVE	Resolution 19/01
<u>Resolution 21/03</u>	On Harvest Control Rules for Skipjack Tuna in the IOTC Area of Competence	ACTIVE	Resolution 16/02
2019			
<u>Resolution 19/02</u>	Procedures on a fish aggregating devices (FADs) management plan	ACTIVE	Resolution 18/08
<u>Resolution 19/03</u>	On the conservation of mobulid species caught in association with fisheries in the IOTC Area of Competence	ACTIVE	



Resolution 19/04	Concerning the IOTC Record of Vessels Authorised to operate in the IOTC Area of Competence	ACTIVE	Resolution 15/04
Resolution 19/05	On a ban on discards of bigeye tuna, skipjack tuna, yellowfin tuna, and non-targeted species caught by purse seine vessels in the IOTC Area of Competence	ACTIVE	Resolution 17/04
Resolution 19/07	On vessel chartering in the IOTC Area of Competence	ACTIVE	Resolution 18/10
2018			
Resolution 18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	ACTIVE	
Resolution 18/03	On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area of Competence	ACTIVE	Resolution 17/03
Resolution 18/04	On BioFAD experimental project	ACTIVE	
Resolution 18/05	On management measures for the conservation of the billfishes: striped marlin, black marlin, blue marlin and indo-pacific sailfish	ACTIVE	Resolution 15/05
Resolution 18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	ACTIVE	Resolution 16/06
Resolution 18/09	On a scoping study of socio-economic data and indicators of IOTC fisheries	ACTIVE	
2017			
Resolution 17/02	Working party on the implementation of Conservation and Management Measures (WPICMM)	ACTIVE	Resolution 16/12
Resolution 17/05	On the conservation of sharks caught in association with fisheries managed by the IOTC	ACTIVE	Resolution 05/05
Resolution 17/07	On the prohibition to use large-scale driftnets in the IOTC Area	ACTIVE	Resolution 12/12
2016			
Resolution 16/03	On the second performance review follow-up	ACTIVE	Resolution 09/01
Resolution 16/04	On the implementation of a Pilot Project in view of Promoting the Regional Observer Scheme of IOTC	ACTIVE	None
Resolution 16/05	On vessels without nationality	ACTIVE	None
Resolution 16/07	On the use of artificial lights to attract fish	ACTIVE	Resolution 15/07
Resolution 16/08	On the prohibition of the use of aircrafts and unmanned aerial vehicles as fishing aids	ACTIVE	None
Resolution 16/09	On establishing a Technical Committee on Management Procedures	ACTIVE	Resolution 14/03
Resolution 16/10	To promote the implementation of IOTC Conservation and Management Measures	ACTIVE	Resolution 12/10
Resolution 16/11	On port state measures to prevent, deter and eliminate illegal, unreported and unregulated fishing	ACTIVE	Resolution 10/11
2015			
Resolution 15/01	On the recording of catch and effort data by fishing vessels in the IOTC area of competence	ACTIVE	Resolution 13/03



Resolution 15/02	On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	ACTIVE	Resolution 10/02
Resolution 15/03	On the vessel monitoring system (VMS) programme	ACTIVE	Resolution 06/03
Resolution 15/09	On a fish aggregating devices (FADs) working group	ACTIVE	None
Resolution 15/10	On target and limit reference points and a decision framework	ACTIVE	Resolution 13/10
2014			
Resolution 14/01	On the removal of obsolete Conservation and Management Measures	ACTIVE	Resolution 13/01
Resolution 14/02	For the conservation and management of tropical tunas stocks in the IOTC area of competence	ACTIVE	Resolution 12/13
Resolution 14/05	Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information	ACTIVE	Resolution 13/07
Recommendation 14/07	To standardise the presentation of scientific information in the annual Scientific Committee report and in Working Party reports	ACTIVE	None
2013			
Resolution 13/05	On the conservation of whale sharks (<i>Rhincodon typus</i>)	ACTIVE	None
Resolution 13/06	On a scientific and management framework on the Conservation of sharks species caught in association with IOTC managed fisheries	ACTIVE	None
Resolution 13/09	On the conservation of albacore caught in the IOTC area of competence	ACTIVE	None
2012			
Resolution 12/01	On the implementation of the precautionary approach	ACTIVE	None
Resolution 12/02	Data confidentiality policy and procedures	ACTIVE	Resolution 98/02
Resolution 12/04	On the conservation of marine turtles	ACTIVE	Resolution 09/06 & Recommendation 05/08
Resolution 12/06	On reducing the incidental bycatch of seabirds in longline fisheries	ACTIVE	Resolution 10/06 & Recommendation 05/09
Resolution 12/09	On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence	ACTIVE	Resolution 10/12
Recommendation 12/15	On the best available science	ACTIVE	None
2011			
Resolution 11/02	On the prohibition of fishing on data buoys	ACTIVE	None



Resolution 10/08	Concerning a record of active vessels fishing for tunas and swordfish in the IOTC area	ACTIVE	Resolution 07/04
Resolution 10/10	Concerning market related measures	ACTIVE	None
2007			
Resolution 07/01	To promote compliance by nationals of Contracting Parties and Cooperating Non-Contracting Parties with IOTC Conservation and Management Measures	ACTIVE	None
2005			
Resolution 05/03	Relating to the establishment of an IOTC programme of inspection in port	ACTIVE	Resolution 02/01
Recommendation 05/07	Concerning a management standard for the tuna fishing vessels	ACTIVE	None
2003			
Resolution 03/01	On the limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties	ACTIVE	None
Resolution 03/03	Concerning the amendment of the forms of the IOTC statistical documents	ACTIVE	None
2001			
Resolution 01/03	Establishing a scheme to promote compliance by Non-Contracting Party vessels with Resolutions established by IOTC	ACTIVE	None
Resolution 01/06	Concerning the IOTC Bigeye tuna statistical document programme	ACTIVE	None
1999			
Resolution 99/02	Calling for actions against fishing activities by large scale flag of convenience longline vessels	ACTIVE	None

Superseded CMM which remain binding on some CPCs following an objection

Resolution or Recommendation number	Conservation and Management Measure	Status	Superseded by
Resolution 19/01	On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of Competence	Remains binding for Indonesia, the Islamic Republic of Iran, Madagascar, Oman and Somalia	Resolution 21/01
Resolution 18/01	On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of Competence	Remains binding for India	Resolution 19/01



Resolution 16/02	On Harvest Control Rules for Skipjack Tuna in the IOTC Area of Competence	Remains binding for Oman	Resolution 21/03
Resolution 12/12	To prohibit the use of large-scale driftnets on the high seas in the IOTC area	Remains binding for Pakistan	Resolution 17/07

Superseded CMMs for all other CPCs or CMMs not in force anymore

Resolution or Recommendation number	Conservation and Management Measure	Status	Superseded by
2022			
Resolution 22/02	On Establishing a Programme for Transshipment by Large-scale Fishing Vessels	Superseded	Resolution 23/05
2021			
Resolution 21/02	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 22/02
2019			
Resolution 19/06	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 21/02
2018			
Resolution 18/06	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 19/06
Resolution 18/08	Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species	Superseded	Resolution 19/02
Resolution 18/10	On vessel chartering in the IOTC Area of Competence	Superseded	Resolution 19/07
2017			
Resolution 17/01	On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC Area of Competence	Superseded	Resolution 18/01
Resolution 17/03	On establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC Area of competence	Superseded	Resolution 18/03
Resolution 17/04	On a ban on discards of Bigeye tuna, Skipjack tuna, Yellowfin tuna, and non-targeted species caught by purse seine vessels in the IOTC Area of Competence	Superseded	Resolution 19/05
Resolution 17/06	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 18/06



Resolution 17/08	Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species	Superseded	Resolution 18/08
2016			
Resolution 16/01	On an interim plan for rebuilding the Indian Ocean Yellowfin tuna stock	Superseded	Resolution 17/01
Resolution 16/06	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Superseded	Resolution 18/07
Resolution 16/12	Working Party on the Implementation of Conservation and Management Measures (WPICMM)	Superseded	Resolution 17/02
2015			
Resolution 15/04	Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence	Superseded	Resolution 19/04
Resolution 15/05	On conservation measures for striped marlin, black marlin and blue marlin	Superseded	Resolution 18/05
Resolution 15/06	On a ban on discards of Bigeye tuna, Skipjack tuna, Yellowfin tuna, and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence	Superseded	Resolution 17/04
Resolution 15/07	On the use of artificial lights to attract fish to drifting fish aggregating devices	Superseded	Resolution 16/07
Resolution 15/08	Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species	Superseded	Resolution 17/08
Resolution 15/11	On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties	Not in force anymore	
2014			
Resolution 14/03	On enhancing the dialogue between fisheries scientists and managers	Superseded	Resolution 16/09
Resolution 14/04	Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence	Superseded	Resolution 15/04
Resolution 14/06	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 17/06
2013			
Resolution 13/01	On the removal of obsolete Conservation and Management Measures	Superseded	Resolution 14/01
Resolution 13/02	Concerning the IOTC record of vessels authorised to operate in the IOTC area of competence	Superseded	Resolution 14/04
Resolution 13/03	On the recording of catch and effort data by fishing vessels in the IOTC area of competence	Superseded	Resolution 15/01
Resolution 13/04	On the conservation of cetaceans	Superseded	Resolution 23/06



Resolution 13/07	Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information	Superseded	Resolution 14/05
Resolution 13/08	Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species	Superseded	Resolution 15/08
Resolution 13/10	On interim target and limit reference points and a decision framework	Superseded	Resolution 15/10
Resolution 13/11	On a ban on discards of Bigeye tuna, Skipjack tuna, Yellowfin tuna and a recommendation for non-targeted species caught by purse seine vessels in the IOTC area of competence	Superseded	Resolution 15/06
2012			
Resolution 12/03	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Superseded	Resolution 13/03
Resolution 12/05	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 14/06
Resolution 12/07	Concerning a record of licensed foreign vessels fishing for IOTC species in the IOTC area of competence and access agreement information	Superseded	Resolution 13/07
Resolution 12/08	On a fish aggregation devices (FADS) management plan	Superseded	Resolution 13/08
Resolution 12/10	To promote implementation of Conservation and Management Measures already adopted by IOTC	Superseded	Resolution 16/10
Resolution 12/11	On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties	Superseded	Resolution 15/11
Resolution 12/13	For the conservation and management of tropical tunas stocks in the IOTC area of competence	Superseded	Resolution 14/02
Recommendation 12/14	On interim target and limit reference points	Superseded	Resolution 13/10
2011			
Resolution 11/01	Regarding consolidation of IOTC Resolutions and Recommendations	Superseded	Resolution 14/01
Resolution 11/03	Establishing a list of vessels presumed to have carried out illegal, unreported and unregulated fishing in the IOTC area of competence	Superseded	Resolution 17/03
Resolution 11/04	On a regional observer scheme	Superseded	Resolution 22/04
Resolution 11/05	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 12/05
Recommendation 11/06	Recording of catch by fishing vessels in the IOTC area of competence	Superseded	Resolution 12/03
2010			
Resolution 10/01	For the conservation and management of tropical tunas stocks in the IOTC area of competence	Superseded	Resolution 12/13
Resolution 10/02	Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)	Superseded	Resolution 15/02



Resolution 10/03	Concerning the recording of catch by fishing vessels in the IOTC area	Superseded	Resolution 12/03
Resolution 10/04	On a regional observer scheme	Superseded	Resolution 11/04
Resolution 10/05	On the establishment of a meeting participation fund for developing IOTC Member and Non-Contracting Cooperating Parties (CPC's)	Superseded	Resolution 14/01
Resolution 10/06	On reducing the incidental bycatch of seabirds in longline fisheries	Superseded	Resolution 12/06
Resolution 10/07	Concerning a record of licensed foreign vessels fishing for tunas and swordfish in the IOTC area	Superseded	Resolution 12/07
Resolution 10/09	Concerning the functions of the compliance committee	Superseded	Resolution 14/01
Resolution 10/11	On port state measures to prevent, deter and eliminate illegal, unreported and unregulated fishing	Superseded	Resolution 16/11
Resolution 10/12	On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC agreement area	Superseded	Resolution 12/09
Recommendation 10/13	On the implementation of a ban on discards of Skipjack tuna, yellow fin tuna, Bigeye tuna, and non targeted species caught by purse seiners	Superseded	Resolution 13/11
2009			
Resolution 09/01	On the performance review follow-up	Superseded	Resolution 16/03
Resolution 09/02	On the implementation of a limitation of fishing capacity of Contracting Parties and Cooperating Non-Contracting Parties	Superseded	Resolution 12/11
Resolution 09/03	On establishing a list of vessels presumed to have carried out illegal, unregulated and unreported fishing in the IOTC area	Superseded	Resolution 11/03
Resolution 09/04	On a regional observer scheme	Superseded	Resolution 10/04
Resolution 09/05	To prohibit the use of large-scale driftnets on the high seas in the IOTC area	Superseded	Resolution 12/12
Resolution 09/06	On marine turtles	Superseded	Resolution 12/04
2008			
Resolution 08/01	Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)	Superseded	Resolution 10/02
Resolution 08/02	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 11/05
Resolution 08/03	On reducing the incidental bycatch of seabirds in longline fisheries	Superseded	Resolution 10/06
Resolution 08/04	Concerning the recording of catch by longline fishing vessels in the IOTC area	Superseded	Resolution 12/03
2007			
Resolution 07/02	Concerning the establishment of an IOTC record of vessels authorised to operate in the IOTC area	Superseded	Resolution 13/02



Resolution 07/03	Concerning the recording of catch by fishing vessels in the IOTC area	Superseded	Resolution 10/03
Resolution 07/04	Concerning registration and exchange of information on vessels fishing for tunas and swordfish in the IOTC area	Superseded	Resolutions 10/07, 10/08
Resolution 07/05	Limitation of fishing capacity of IOTC Contracting Parties and Cooperating Non-Contracting Parties in terms of number of longline vessels targeting swordfish and albacore	Superseded	Resolution 09/02
2006			
Resolution 06/01	On establishing a list of vessels presumed to have carried out illegal, unregulated and unreported fishing in the IOTC area	Superseded	Resolution 09/03
Resolution 06/02	On establishing a programme for transshipment by large-scale fishing vessels	Superseded	Resolution 08/02
Resolution 06/03	On establishing a vessel monitoring system programme	Superseded	Resolution 15/03
Resolution 06/04	On reducing incidental bycatch of seabirds in longline fisheries	Superseded	Resolution 08/03
Resolution 06/05	On the limitation of fishing capacity, in terms of number of vessels, of IOTC Contracting Parties and Co-operating Non Contracting Parties	Superseded	Resolution 09/02
2005			
Resolution 05/01	On Conservation and Management Measures for Bigeye tuna	Superseded	Resolution 23/04
Resolution 05/02	Concerning the establishment of an IOTC record of vessels authorised to operate in the IOTC area	Superseded	Resolution 07/02
Resolution 05/04	Concerning registration and exchange of information on vessels, including flag of convenience vessels, fishing for tropical tunas and swordfish in the IOTC area of competence	Superseded	Resolution 07/04
Resolution 05/05	Concerning the conservation of sharks caught in association with fisheries managed by IOTC	Superseded	Resolution 17/05
Recommendation 05/06	Concerning the terms of references for an IOTC working party on management options	Superseded	Resolution 13/01
Recommendation 05/08	On sea turtles	Superseded	Resolution 12/04
Recommendation 05/09	On incidental mortality of seabirds	Superseded	Resolution 12/06
2003			
Resolution 03/02	On criteria for attaining the status of Co-operating Non-Contracting Party	Superseded	Resolution 14/01
Recommendation 03/04	Concerning enhancement of effectiveness of IOTC measures to eliminate IUU activities in the IOTC area	Superseded	Resolution 13/01
Recommendation 03/05	Concerning trade measures	Superseded	Resolution 13/01
Recommendation 03/06	Recommendation to commission a report on management options for tuna and tuna-like species	Superseded	Resolution 13/01
Resolution 03/07	Recognising the contributions of David Ardill	Superseded	Resolution 14/01



2002			
Resolution 02/01	Relating to the establishment of an IOTC programme of inspection in port	Superseded	Resolution 05/03
Resolution 02/02	Relating to the establishment of a vessel monitoring system pilot programme	Superseded	Resolution 06/03
Resolution 02/03	Terms of reference for the IOTC compliance committee	Superseded	Resolution 10/09
Resolution 02/04	On establishing a list of vessels presumed to have carried out illegal, unregulated and unreported fishing in the IOTC area	Superseded	Resolution 06/01
Resolution 02/05	Concerning the establishment of an IOTC record of vessels over 24 metres authorised to operate in the IOTC area	Superseded	Resolutions 05/02, 07/02
Recommendation 02/06	On the implementation of the resolution concerning the IOTC record of vessels	Superseded	Resolution 13/01
Recommendation 02/07	Concerning measures to prevent the laundering of catches by IUU large-scale tuna longline fishing vessels	Superseded	Resolution 14/01
Resolution 02/08	On the conservation of Bigeye and Yellowfin tuna in the Indian Ocean	Superseded	Resolution 14/01
Resolution 02/09	Establishment of the Standing Committee on Administration and Finance (SCAF)	Superseded	Resolution 14/01
2001			
Recommendation 01/01	Concerning the national observer programmes for tuna fishing in the Indian Ocean	Superseded	Resolution 13/01
Resolution 01/02	Relating to control of fishing activities	Superseded	Resolution 13/02
Resolution 01/04	On limitation of fishing effort of non members of IOTC whose vessels fish Bigeye tuna	Superseded	Resolution 14/01
Resolution 01/05	Mandatory statistical requirements for IOTC members	Superseded	Resolution 08/01
Resolution 01/07	Concerning the support of the IPOA-IUU plan	Superseded	Resolution 14/01
2000			
Resolution 00/01	On compliance with mandatory statistical requirements for IOTC Members and Requesting Cooperation with Non-Contracting Parties	Superseded	Resolution 14/01
Resolution 00/02	On a survey of predation of longline caught fish	Superseded	Resolution 14/01
1999			
Resolution 99/01	On the management of fishing capacity and on the reduction of the catch of juvenile Bigeye tuna by vessels, including flag of convenience vessels, fishing for tropical tunas in the IOTC area of competence	Superseded	Resolution 14/01
Resolution 99/03	On the elaboration of a control and inspection scheme for IOTC	Superseded	Resolution 14/01
Resolution 99/04	On the status of Cooperating Non-Contracting Parties	Superseded	Resolution 03/02
1998			



Resolution 98/01	Mandatory statistical requirements for IOTC members	Superseded	Resolution 01/05
Resolution 98/02	Data confidentiality policy and procedures	Superseded	Resolution 12/02
Resolution 98/03	On southern bluefin tuna	Superseded	Resolution 14/01
Resolution 98/04	Concerning registration and exchange of information on vessels, including flag of convenience vessels, fishing for tropical tunas in the IOTC area of competence	Superseded	Resolutions 05/04, 07/04
Resolution 98/05	On Cooperation with Non-Contracting Parties	Superseded	Resolution 14/01