

Report of the Second Technical Committee on Allocation Criteria

Muscat, Oman 18–20 February, 2013

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BIBLIOGRAPHIC ENTRY

IOTC 2013. Report of the Second Technical Committee on Allocation Criteria. Muscat, Oman 18–20 February 2013. *IOTC–2013–TCAC02–R[E]*: 81 pp.

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ACRONYMS

CFFA	Coalition for Fair Fisheries Arrangement
CMM	Conservation and Management Measure (of the IOTC; Resolutions and Recommendations)
CPCs	Contracting parties and cooperating non-contracting parties
EEZ	Exclusive Economic Zone
FAD	Fish-aggregating device
FAO	Food and Agriculture Organization of the United Nations
GI	Greenpeace International
IOMAC	Indian Ocean Marine Affairs Cooperation
IOTC	Indian Ocean Tuna Commission
ISSF	International Seafood Sustainability Foundation (ISSF)
MPF	Meeting Participation Fund
MSE	Management Strategy Evaluation
MSY	Maximum sustainable yield
NGO	Non-governmental organization
SC	Scientific Committee of the IOTC
SWIOFP	Southwest Indian Ocean Fisheries Project
TAC	Total Allowable Catch
TCAC	Technical Committee on Allocation Criteria
UNCLOS	United Nations Convention on the Law of the Sea
WWF	World Wide Fund for Nature (a.k.a World Wildlife Fund)

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EXECUTIVE SUMMARY

The Second Session of the Technical Committee on Allocation Criteria (TCAC02) was held in Muscat, Oman, from 18 to 20 February 2013, Chaired by Mr Mauree Daroomalingum. A total of 82 individuals attended the Session, comprised of 69 delegates from 23 Member countries, and 1 delegate from 1 Cooperating Non-Contracting Party, as well as 9 delegates from 5 observer organisations and 3 invited experts.

General discussion and workplan

([para. 38.](#)) The TCAC **RECOGNISED** the mandate it received from Resolution 12/13 includes the consideration of alternative management measures. However, it noted that it was not in a position to discuss alternative measures in detail at the current meeting, and therefore **REQUESTED** that the Commission task the Scientific Committee with examining alternative management measures in combination with clear management objectives. The Commission should ensure that it specifies the level of reduction or the long term management objectives to be achieved with the alternative measures, as these will, in turn, guide and facilitate the analysis of the SC.

The following are the recommendations arising from the TCAC02 meeting:

Legal advice

([para. 35.](#)) The TCAC **AGREED** that there was a need for a legal expert to be present at the next TCAC meeting to offer advice to the TCAC. As such, the TCAC **RECOMMENDED** that the Commission allocated the necessary funds for this purpose, either for an external legal expert or for the FAO legal office to commit a suitable expert.

Meeting Participation Fund

([para. 42.](#)) The TCAC **NOTED** that the attendance by delegates from developing CPCs to the TCAC in 2013 (24 delegates from 15 Members, and 1 delegate from a CNCP) was largely due to the IOTC MPF, adopted by the Commission in 2010 (Resolution 10/05 on the establishment of a Meeting Participation Fund for developing IOTC Members and non-Contracting Cooperating Parties), and **RECOMMENDED** that the Commission maintain this fund into the future.

Review of the draft and adoption of the report of the second technical committee on allocation criteria

([para. 43.](#)) The TCAC **RECOMMENDED** that the Commission consider the consolidated set of recommendations arising from TCAC02, provided at [Appendix XIV](#).

1. OPENING OF THE SESSION

1. The Second Session of the Technical Committee on Allocation Criteria (TCAC02) was held in Muscat, Oman, from 18 to 20 February 2013, Chaired by Mr. Mauree Daroomalingum. A total of 82 individuals attended the Session, comprised of 69 delegates from 23 Member countries, 1 delegate from 1 Cooperating Non-Contracting Party, 9 delegates from 5 observer organisations and 3 invited experts. The list of participants is provided at [Appendix I](#).
2. On behalf of His Excellency, Dr. Fauad bin Ja'far Al-Sajwani, Minister of Agriculture and Fisheries, Government of the Sultanate of Oman, Dr. Ahmed Mohammed Al-Mazrouai, Director General of Fisheries Development, welcomed the participants to Oman and declared the meeting open. The Chair Mr. Mauree Daroomalingum, joined in welcoming participants to the TCAC02 and declared the meeting open.

2. ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION

3. The TCAC adopted the Agenda provided at [Appendix II](#) with the addition of a second agenda item under section 7, to discuss the general principles of allocation criteria, thereby building upon the work of the TCAC01. The documents presented to the TCAC02 are listed in [Appendix III](#).
4. It was recalled that this Technical Committee had been called by the Commission in Resolution 10/01 (superseded by Resolution 12/13), with the objective to discuss and recommend an allocation quota system, or any other relevant measures, for the management of tuna and tuna-like resources in the Indian Ocean.

3. ADMISSION OF OBSERVERS

5. Pursuant to Article VII of the Agreement establishing the IOTC, the TCAC admitted the following observers, as defined in Rule XIII of the IOTC Rules of Procedure:
 - a. Rule XIII.5. *The Commission may invite, upon request, non-governmental organizations having special competence in the field of activity of the Commission to attend such of its meetings as the Commission may specify. The list of the NGOs wishing to be invited will be submitted beforehand by the Secretary to the Members of the Commission. If one of the Members of the Commission objects giving in writing its reasons within 30 days, the matter will then be subject to decision of the Commission out of session by written procedure.*
 - i. Coalition for Fair Fisheries Arrangement (CFFA)
 - ii. Greenpeace International (GI)
 - iii. International Seafood Sustainability Foundation (ISSF)
 - iv. Southwest Indian Ocean Fisheries Project (SWIOFP)
 - v. World Wide Fund for Nature (a.k.a World Wildlife Fund, WWF)

Invited experts

- b. Rule XIII.9. *The Commission may invite consultants or experts, in their individual capacity, to attend the meetings or participate in the work of the Commission as well as the Scientific Committee and the other subsidiary bodies of the Commission.*
 - i. Taiwan, Province of China

4. OUTCOMES OF THE SIXTEENTH SESSION OF THE COMMISSION

6. The TCAC **NOTED** paper IOTC–2013–TCAC02–03, which provided an overview of the decisions and requests made by the Commission at its Sixteenth Session, held from 22–26 April 2012, as well as the Fifteenth Session, held from 18–26 March 2011, specifically relating to the work of the TCAC.
7. The TCAC **NOTED** that as the TCAC02 meeting had been delayed from 2012 until 2013, at its Sixteenth Session, the Commission did not consider any quota allocation options.
8. The TCAC **NOTED** the outcomes of the Fifteenth Session of the Commission relevant to the TCAC, in particular, the Commission's comments on the recommendations made by the first TCAC (extracts from the S15 report):
 - The Commission addressed the guiding principles for a possible allocation process agreed to by the TCAC01 in its 2011 report. The Commission **endorsed** the guiding principles, noting the following. (Para. 98 of the S15 Report)
 - The Commission **noted** that the implementation of a quota system will rely on the capacity of each CPC to estimate catches, close to real-time and as accurately as possible, for the species and fisheries concerned. (Para. 99 of the S15 Report)

- In this regard, the Commission **encouraged** CPCs to work towards streamlining their statistical systems to make sure that estimates of catches as per the required resolution and time frame can be produced in the near future. (Para. 100 of the S15 Report)
 - The Commission **invited** CPCs to work with the Secretariat to achieve these objectives, where required. (Para. 101 of the S15 Report)
 - The Commission **noted** that the implementation of a quota system may take several years, and the Commission may need to consider alternative management measures until such a time that a quota system is in place. In this regard, the Commission **recalled** that paragraph 13 of IOTC Resolution 10/01 states that “*The Commission shall adopt an allocation quota system or any other relevant measure for the yellowfin and bigeye tunas at its plenary session in 2012*”. (Para. 102 of the S15 Report)
 - The Commission **agreed** that the TCAC while devoting most of its efforts to develop a mechanism for quota allocation shall also consider appropriate alternative management measures. In this regard the Commission stressed the need for all IOTC CPCs to work intersessionally towards achieving this objective as soon as possible. (Para. 103 of the S15 Report)
 - The Commission **noted** paper IOTC–2011–S15–05 outlining the recommendations of the Indian Ocean Marine Affairs Cooperation (IOMAC). (Para. 104 of the S15 Report)
 - The Commission **requests** that the Scientific Committee provide advice to the Commission that adds to the information currently available or already requested of the Scientific Committee regarding the take of juvenile yellowfin tuna, bigeye tuna and other species, and on alternative management measures, including an assessment of the impact of current purse seine activities, including the size/fishing capacity (and gear types i.e. mesh size etc.) of vessels, and the potential implications that may arise for tuna and tuna-like species. Such advice should include options for capping purse seine effort and use in conjunction with drifting FADs in the Indian Ocean. (Para. 105 of the S15 Report)
9. The TCAC **AGREED** to develop advice in response to each of the requests made by the Commission at its 15th Session, and also via Resolution 12/13 *For the conservation and management of tropical tunas stocks in the IOTC area of competence*, throughout the course of the TCAC02 meeting.

5. OUTCOMES OF THE FIFTEENTH SESSION OF THE SCIENTIFIC COMMITTEE

10. The TCAC **NOTED** paper IOTC–2013–TCAC02–04, which provided an overview of the main outcomes of the Fourteenth and Fifteenth Sessions of the Scientific Committee relevant to the TCAC, in particular on the use of alternative management measures (e.g. time-area closures; impacts of catching bigeye tuna and yellowfin tuna juveniles and spawners; FAD closures).

5.1 Outlook on Time-Area Closures

11. The TCAC **NOTED** the evaluation of the IOTC time-area closure by the SC in 2011 and 2012. The evaluation included an estimation of what the maximum potential loss of catches would be under different scenarios of the time-area closure, as estimated from the catch statistics of the IOTC. The estimation was based on the historical IOTC database as no information was available for the specific closed periods of 2011 (February for longline, November for purse seine) when the measure took effect. The longline effort had already been entirely redistributed to other areas and the purse seine data for November were not yet available.
12. The TCAC **NOTED** that the results emphasized that catch reduction expected from the current time-area closure was negligible. The results of the study indicated that the current area closures, including an IOTC closure of only two, one month closures (one month for purse seine and one month for longline), is likely to have little impact on stock status, whether effort is eliminated or redistributed. The study examined scenarios to investigate the impacts of a 12 month closure of the current IOTC time-area closure. Some benefits to the status of yellowfin tuna stocks were predicted if it is assumed that effort (and catch) is eliminated, but where effort is redistributed such a closure had negligible impact on stock status.
13. The TCAC **NOTED** that the current closure is likely to be ineffective, as fishing effort will be redirected to other fishing grounds in the Indian Ocean. The positive impacts of the moratorium within the closed area would likely be offset by effort reallocation. For example, the SC in 2012 noted that longline fishing effort has been redistributed to traditional albacore fishing grounds in recent years, thereby further increasing fishing pressure on this stock.
14. **NOTING** that the objective of Resolution 12/13 is to decrease the overall pressure on the main targeted stocks in the Indian Ocean, in particular yellowfin tuna and bigeye tuna, and also to evaluate the impact of the

current time/area closure and any alternative scenarios on tropical tuna populations, the level of reduction or the long term management objectives to be achieved with the current or alternative time area closures and/or alternative measures need to be specified, as these are not contained within Resolution 12/13. This will, in turn, guide and facilitate the analysis of the effectiveness of the measure.

5.2 *Impacts of Catching Bigeye Tuna and Yellowfin Tuna Juveniles and Spawners*

15. The TCAC **NOTED** that the most direct measure of impact of fishing fleets on juveniles could be obtained by looking at the catches of juvenile yellowfin tuna and bigeye tuna by gear, as presented in SC report for 2012. It was **NOTED** that the estimates of catches of juvenile fish are doubtful for some gears, for which catch-at-length information is severely limited or almost non-existent.
16. The TCAC **NOTED** that the fishery statistics available for many fleets, in particular for coastal fisheries, are not accurate enough for a comprehensive analysis as has been repeatedly noted in previous SC reports.
17. The TCAC **NOTED** that a complete analysis of the likely impact of the juveniles and spawners caught by any fishery in the Indian Ocean and of any management plan should be carried out within the context of the work on MSE that the SC has agreed to carry out in the future. This could, if necessary, also quantify the impact of such measures not only on the stocks, but also on the fleets, including likely economic impact on activities dependent on the fleets affected.
18. The TCAC **NOTED** that the Western and Central Pacific Fisheries Commission has implemented since 2009 a FAD closure for the conservation of yellowfin tuna and bigeye tuna juveniles, and that the SC intended on undertaking further investigation of the feasibility and impacts of such a measure, as well as other measures, in the context of Indian Ocean fisheries and stocks.
19. The TCAC **NOTED** that multi-gear yield-per-recruit analyses may be able to evaluate the impact of catching bigeye tuna and yellowfin tuna juveniles and spawners by gear.
20. The TCAC **NOTED** that more effective time-area closures, than that currently in place, may reduce the catches of both juvenile and spawners of bigeye tuna and yellowfin tuna assuming that effort is not reallocated to other regions.

6. **THE AVAILABILITY, COMPLETENESS AND QUALITY OF CATCH DATA FOR ALL FLEETS IN THE IOTC DATABASE**

21. The TCAC **NOTED** paper IOTC–2013–TCAC02–05, which provided an overview of the availability, completeness and quality of data for all fleets in IOTC database. Determining the reliability of catch data held at the IOTC Secretariat is an important preliminary step in the determination of baseline calculations.
22. The TCAC **NOTED** that some of the key elements that need to be available for an allocation process or for the development of alternative management measures include time series estimates of catches by 1) country; 2) spatial distribution (within Exclusive Economic Zones and on the high seas); 3) temporal distribution (year, month); and 4) fleet type (e.g. gillnet, longline; pole-and-line; purse seine).
23. The TCAC **NOTED** that levels of uncertainty in the catch data can be reduced if IOTC Resolutions are implemented by all CPCs, in particular: Resolution 12/03 *On The Recording Of Catch And Effort By Fishing Vessels In The IOTC Area Of Competence*, and if this information is reported to the IOTC Secretariat annually, as stipulated in: Resolution 10/02 *Mandatory Statistical Requirements For IOTC Members And Cooperating Non-Contracting Parties (CPC's)*.
24. The TCAC **NOTED** that while there are uncertainties in the data available at the IOTC Secretariat, none of the uncertainties, in isolation or in combination, should be considered enough of a reason not to move towards an allocation system or for the development of alternative management measures. Although some of the issues identified are likely to compromise the quality of the estimates to some degree, the final estimates of catch are not thought to be substantially affected by these issues.
25. The TCAC **NOTED** that the levels of uncertainty in the catch data available are already being incorporated into annual MSY estimates by the Scientific Committee. As levels of uncertainty in the data are further reduced, a future allocation process could incorporate a review process to periodically update baseline catch estimates to feed into an allocation formula.

7. PROPOSALS FOR AN ALLOCATION QUOTA SYSTEM AS STATED IN RESOLUTION 12/13 (SUPERSEDED RES. 10/01)

7.1 *Proposals provided by Members*

26. The TCAC reviewed the following five proposals submitted before the 30 day pre-meeting deadline, with the addition of a sixth proposal introduced by Indonesia immediately prior to the meeting. The proposals are annexed to this report.

- **Proposal A (Japan)** (IOTC–2013–TCAC02–PropA Rev_1) – [Appendix IV](#)
- **Proposal B (Seychelles)** (IOTC–2013–TCAC02–PropB) – [Appendix V](#)
- **Proposal C (European Union)** (IOTC–2013–TCAC02–PropC) – [Appendix VI](#)
- **Proposal D (I.R. Iran)** (IOTC–2013–TCAC02–PropD Rev_1) – [Appendix VII](#)
- **Proposal E (Mozambique)** (IOTC–2013–TCAC02–PropE) – [Appendix VIII](#). The following statement was made by Mozambique: “Mozambique wishes to note that in its verbal presentation it updated its comments to address the revised proposal of Seychelles, and further noted its support for the addition of the disadvantaged States set aside. Further, Mozambique proposed an enhanced Set Aside quota in the Seychelles proposal to include the new entrants as well as the updated catches, artisanal catches and fleet development plans as these become available to the Commission. Mozambique also notes it will continue to issue the same number of licenses until the real level of catches in Mozambique’s waters are determined. Further, Mozambique notes it wishes to highlight the need for one CPC to update its catches in Mozambique’s fisheries waters before it can agree to any implementation of the allocation criteria to ensure that Mozambique has a level playing field for the latter exercise.”
- **Information proposal INF01 (Indonesia)** (IOTC–2013–TCAC02–INF01) – [Appendix IX](#).

7.2 *Guiding legal text*

27. The TCAC **RECALLED** Article V, paragraphs 1 and 2d, and Article XVI of the IOTC Agreement, as provided at [Appendix X](#).
28. The TCAC **RECALLED** Part V of the United Nations Convention on the Law of the Sea (UNCLOS) on Exclusive Economic Zones; specifically Articles 55, 56, 63 and 64, as provided at [Appendix X](#).

7.3 *Allocation criteria - Position paper from 16 Indian Ocean coastal states*

29. A group of 16 Indian Ocean coastal states presented a list of seven guiding principles that may be adopted in formulating an allocation system or any other relevant measure(s) for the IOTC for the consideration of TCAC02. The seven principles are:
1. Sustainable fishery.
 2. Exclusive Rights of the Indian Ocean coastal States in their EEZs.
 3. Special consideration for small, vulnerable economies and developing Coastal States of the Indian Ocean.
 4. Food and livelihood security.
 5. Equitable utilization and conservation of the resources.
 6. Recognize and take account of the rights of all CPCs on the high seas.
 7. Tuna management process shall be consistent with International laws.
30. Mindful of the unique nature of the fisheries in the region and complexities involved in developing a comprehensive scheme of allocation criteria, the Group also **ENCOURAGED** examining alternative management measures. The complete proposal is provided at [Appendix XI](#).
31. The TCAC **NOTED** that Some CPCs, including some Indian Ocean coastal states indicated that the proposal shown in [Appendix XI](#) would not be acceptable, notably some important principles were not included in the proposal (e.g. catch history and compliance...). Furthermore, some CPCs highlighted that exclusive rights expression does not exist in the international law.

7.4 *Allocation criteria –TCAC guiding principles*

32. The TCAC **RECALLED** that the process of establishing allocation criteria is complex, nevertheless, progressing on the basis of common ground in the positions expressed at the meeting, including an agreement on basic principles that shall guide further developments of an approach to allocation, was of high importance.
33. Some CPCs **RECALLED** the position stated in TCAC01 indicating the advantages of a mechanistic approach including transparency, in which allocations are calculated on the basis of a system that incorporates the basic principles enunciated below, as opposed to a list of criteria that would require extensive negotiations at each allocation cycle.
34. The TCAC **NOTED** a statement from the European Union and France provided at [Appendix XII](#).

7.5 *Legal advice*

35. The TCAC **AGREED** that there was a need for a legal expert to be present at the next TCAC meeting to offer advice to the TCAC. As such, the TCAC **RECOMMENDED** that the Commission allocated the necessary funds for this purpose, either for an external legal expert or for the FAO legal office to commit a suitable expert.

8. **PROPOSALS FOR ALTERNATIVE MANAGEMENT MEASURES AS STATED IN RESOLUTION 12/13 (SUPERSEDED RES. 10/01)**

8.1 *Proposal F (Sri Lanka)*

36. The TCAC **NOTED** the proposal from Sri Lanka (IOTC-2013-TCAC02-PropF), provided at [Appendix XIII](#).

8.2 *General discussion and workplan*

37. The TCAC **ACKNOWLEDGED** the constructive nature of the new elements presented during the debate in 2013. To continue with the development of an allocation mechanism incorporating these elements, further inter-sessional work is required, including convening another TCAC Meeting before the IOTC Session in 2014. CPCs are encouraged to conduct inter-sessional consultations with the goal of working towards a revised proposal that could be supported by all CPCs. These further developments should be accompanied by examples that would facilitate the understanding of the consequences of the different formulations to all participants in the allocation process.
38. The TCAC **RECOGNISED** the mandate it received from Resolution 12/13 includes the consideration of alternative management measures. However, it noted that it was not in a position to discuss alternative measures in detail at the current meeting, and therefore **REQUESTED** that the Commission task the Scientific Committee with examining alternative management measures in combination with clear management objectives. The Commission should ensure that it specifies the level of reduction or the long term management objectives to be achieved with the alternative measures, as these will, in turn, guide and facilitate the analysis of the SC.

9. **OTHER BUSINESS**

9.1 *Date and place of the Third Session of the Technical Committee on Allocation Criteria*

39. The TCAC was unanimous in its thanks to Oman for hosting the TCAC02 and commended Oman on the warm welcome, the excellent facilities and assistance provided to the IOTC Secretariat in the organisation and running of the Session.
40. The TCAC **AGREED** to organise the next Session in the first quarter of 2014. The exact dates and meeting venue will be confirmed and communicated by the Secretariat at a later date.

9.2 *Election of a Chairperson and Vice-Chairperson for the next biennium*

41. The TCAC **CALLED** for nominations for the positions of Chair and Vice-Chair for the next biennium. Mr. Mauree Daroomalingum (Mauritius) was nominated and re-elected as Chair of the TCAC for the next biennium.

9.3 *Meeting Participation Fund*

42. The TCAC **NOTED** that the attendance by delegates from developing CPCs to the TCAC in 2013 (24 delegates from 15 Members, and 1 delegate from a CNCP) was largely due to the IOTC MPF, adopted by the Commission in 2010 (Resolution 10/05 on the establishment of a Meeting Participation Fund for developing

IOTC Members and non-Contracting Cooperating Parties), and **RECOMMENDED** that the Commission maintain this fund into the future.

10. REVIEW OF THE DRAFT AND ADOPTION OF THE REPORT OF THE SECOND TECHNICAL COMMITTEE ON ALLOCATION CRITERIA

43. The TCAC **RECOMMENDED** that the Commission consider the consolidated set of recommendations arising from TCAC02, provided at [Appendix XIV](#).
44. The report of the TCAC02 was **ADOPTED** on the 20 February 2013.

APPENDIX I

LIST OF PARTICIPANTS

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APPENDIX II

AGENDA OF THE SECOND TECHNICAL COMMITTEE ON ALLOCATION CRITERIA

Date: 18–20 February, 2013

Location: Muscat, Oman

Time: 0900–1700 daily

Chair: Mr Mauree Daroomalingum; **Vice-Chair:** Vacant

1. OPENING OF THE SESSION (Chair)

2. ADOPTION OF THE AGENDA AND ARRANGEMENTS FOR THE SESSION (Chair)

- IOTC-2013-TCAC02-01: Draft agenda for the Second Technical Committee on Allocation Criteria
- IOTC-2013-TCAC02-02: Draft list of documents for the Second Technical Committee on Allocation Criteria

3. ADMISSION OF OBSERVERS (Chair)

The Third Session of the Commission decided that its subsidiary bodies would be open to the participation of observers from Member parties of FAO, from international organisations and from non-governmental organisations, which had attended previous meetings or were admitted to attend Commission Sessions.

4. OUTCOMES OF THE SIXTEENTH SESSION OF THE COMMISSION

- IOTC-2013-TCAC02-03: Outcomes of the Sixteenth Session of the Commission relevant to the TCAC (IOTC Chair).

5. OUTCOMES OF THE FIFTEENTH SESSION OF THE SCIENTIFIC COMMITTEE

Noting that at the 15th Session of the Commission, the Commission requested “*that the Scientific Committee provide advice to the Commission that adds to the information currently available or already requested of the Scientific Committee regarding the take of juvenile yellowfin tuna, bigeye tuna and other species, and on alternative management measures, including an assessment of the impact of current purse seine activities, including the size/fishing capacity (and gear types i.e. mesh size etc.) of vessels, and the potential implications that may arise for tuna and tuna-like species. Such advice should include options for capping purse seine effort and use in conjunction with drifting FADs in the Indian Ocean*” (para. 105 of the S15 report).

- IOTC-2013-TCAC02-04: Outcomes of the Fifteenth Session of the Scientific Committee relevant to the TCAC (SC Chair).

6. THE AVAILABILITY, COMPLETENESS AND QUALITY OF CATCH DATA FOR ALL FLEETS IN THE IOTC DATABASE

Noting that at the 15th Session of the Commission, the Commission “*endorsed the request from the Technical Committee that the Secretariat prepares, for the next meeting of the Committee, a document on the availability, completeness and quality of catch data for all fleets in IOTC database*” (para. 95 of the S15 report).

- IOTC-2013-TCAC02-05: Report on the availability, completeness and quality of catch data for all fleets in the IOTC database.

7. PROPOSALS FOR AN ALLOCATION QUOTA SYSTEM AS STATED IN RESOLUTION 12/13 (superseded Res. 10/01)

- IOTC-2013-TCAC02-PropA Rev_1: Proposal on IOTC Quota Allocation Criteria (Japan)
- IOTC-2013-TCAC02-PropB: On establishing a quota allocation system for the main targeted species in the IOTC area of competence (Seychelles)
- IOTC-2013-TCAC02-PropC: On establishing a quota allocation system for the main targeted species in the IOTC area of competence (European Union)
- IOTC-2013-TCAC02-PropD Rev_1: On establishing allocation criteria for the main target species in the IOTC area of competence (I.R. Iran)
- IOTC-2013-TCAC02-PropE: On establishing a quota allocation system for the main targeted species in the IOTC area of competence (Mozambique)

8. PROPOSALS FOR ALTERNATIVE MANAGEMENT MEASURES STATED IN RESOLUTION 12/13 (superseded Res. 10/01)

Noting that at the 15th Session of the Commission, the Commission “*agreed that the Technical Committee on Allocation Criteria while devoting most of its efforts to develop a mechanism for quota allocation shall also consider appropriate alternative management measures. In this regard the Commission stressed the need for all IOTC CPCs to work intersessionally towards achieving this objective as soon as possible*” (para. 103 of the S15 report).

- IOTC–2013–TCAC02–PropF: Use of alternative management measures in lieu of a quota allocation system for the main target species in the IOTC area of competence (Sri Lanka).

9. OTHER BUSINESS

- 9.1 Date and place of the Third Session of the Technical Committee on Allocation Criteria (Chair)
- 9.2 Election of a Chairperson and Vice-Chairperson for the next biennium (Chair)
- 9.3 Meeting participation fund

10. REVIEW OF THE DRAFT, AND ADOPTION OF THE REPORT OF THE SECOND TECHNICAL COMMITTEE ON ALLOCATION CRITERIA

APPENDIX III

LIST OF DOCUMENTS

Document	Title	Availability
IOTC–2013–TCAC02–01	Draft agenda of the Second Technical Committee on Allocation Criteria	26 September, 2012
IOTC–2013–TCAC02–02	Draft list of documents	26 September, 2012
IOTC–2013–TCAC02–03	Outcomes of the Sixteenth Session of the Commission (Chair)	31 January, 2012 (not updated in 2013)
IOTC–2013–TCAC02–04	Outcomes of the Fifteenth Session of the Scientific Committee relevant to the TCAC (SC Chair)	Presentation at TCAC02 only
IOTC–2013–TCAC02–05	Report on the availability, completeness and quality of catch data for all fleets in the IOTC database (Secretariat)	26 September, 2012
<i>Proposals for allocation quota system</i>		
IOTC–2013–TCAC02–PropA Rev_1	Proposal on IOTC Quota Allocation Criteria (Japan)	26 September, 2012 & 16 January, 2013
IOTC–2013–TCAC02–PropB	On establishing a quota allocation system for the main targeted species in the IOTC area of competence (Seychelles)	26 September, 2012
IOTC–2013–TCAC02–PropC	On establishing a quota allocation system for the main targeted species in the IOTC area of competence (European Union)	26 September, 2012
IOTC–2013–TCAC02–PropD Rev_1	On establishing allocation criteria for the main targeted species in the IOTC area of competence (I.R. Iran)	26 September, 2012, 19 January, 2013 & 15 February, 2013
IOTC–2013–TCAC02–PropE	On establishing a quota allocation system for the main targeted species in the IOTC area of competence (Mozambique)	18 January, 2013
<i>Proposals for alternative management measures</i>		
IOTC–2013–TCAC02–PropF	Use of alternative management measures in lieu of a quota allocation system for the main target species in the iotc area of competence (Sri Lanka)	19 January, 2013
<i>Information papers</i>		
IOTC–2013–TCAC02–INF01	Quota allocation system for Indian Ocean tuna fisheries (Indonesia)	5 February, 2013

APPENDIX IV
JAPAN – PROPOSAL A

DRAFT PROPOSAL ON IOTC QUOTA ALLOCATION

1. Basic principles

- (1) Transparency
 - Objective figures should be used as much as possible in the criteria
- (2) Predictability
 - Players need to predict what will happen in the medium to long term under the new criteria
- (3) Progressiveness
 - Radical change should be avoided
- (4) Sustainable fishery development
 - Due consideration should be given to sustainable fishery development of developing countries

2. Factors to be considered in allocating quota

Category A (main factors)

- (1) Historical catches of members and cooperating non-members (CPCs)
- (2) Fishery development plans of developing CPCs

Category B (adjustment factors)

- (3) Legal status (member or cooperating non-member)
- (4) Degree of compliance with conservation and management measures
- (5) Degree of compliance with financial contribution
- (6) Degree of contribution to research and data collection
- (7) Degree of allocation utilization

3. How to allocate

- (1) Total Allowable Catch (TAC) will be established based on scientific recommendation of the Scientific Committee.
- (2) The share of each CPC will be decided based on its historical catches on a flag basis. The past ten years will be used as base years.
- (3) 3% of TAC will be reserved for fishery development of developing CPCs and new entrants (hereinafter called “Development Reserve”).
- (4) TAC minus Development Reserve will be allocated among CPCs in accordance with shares. This allocation will become “a basic allocation”.
- (5) The basic allocation of each CPC will be adjusted by multiplying the following percentages:
 - (a) Member or cooperating non-member
 - Member: 100%
 - Cooperating non-member: 95%
 - (b) Number of non-compliance with conservation and management measures
 - Zero: 100%
 - One or more (except for overharvest of allocation): 95%
 - 90% will be applied to any overharvest of allocation in addition to payback.
 - (c) Financial contribution
 - Allocation will be cut half if a CPC’s arrear is greater than the amount equal to the most recent two years’ financial contribution unless otherwise decided by the Commission.
 - (d) Contribution to research and data collection
 - Contribution authorized by the Scientific Committee: less than 105%
 - (e) Unused allocation
 - Less than 50% utilization of the each year’s allocation for three years: 90%
- (6) 50% of the reduced portion as a result of (a) to (e) above will go to Development Reserve. The remaining 50%

will be kept unused. The use of this 50% will be decided by the Commission, taking into account scientific advice.

- (7) The Commission will decide allocation for each year at annual meetings in accordance with the above process.

4. Fishery Development of Developing CPCs

- (1) The percentage of Development Reserve (3%) will be increased by 1% every year until it reaches 12% (in 9 years). Further increase will be subject to decision of the Commission.
- (2) If TAC increases, 30% of the increased portion will go to Development Reserve. 70 % of the increased portion will be allocated on a pro rata basis.
- (3) A new entrant who can utilize Development Reserve will be limited to developing coastal country in the Indian Ocean. Such a new entrant needs to become a CPC and submit its fishery development plan. The maximum use of a new entrant should be limited under 100 tonnes.
- (4) A new entrant shall comply with all management and conservation measures adopted by the Commission. If such a new entrant does not ensure compliance with them, its utilization will be suspended until it becomes a formal member.
- (5) Allocation of Development Reserve among developing CPCs will be decided by the Commission, taking into account fishery development plans.

5. Temporary transfer of allocation

- (1) Any transfer of allocation from one CPC to another CPC will be subject to approval of the Commission.
- (2) Only formal members can transfer its allocation to others.
- (3) Temporary transfer of allocation will not affect shares.

APPENDIX V

SEYCHELLES – PROPOSAL B

DRAFT: ON ESTABLISHING A QUOTA ALLOCATION SYSTEM FOR THE MAIN TARGETED SPECIES IN THE IOTC AREA OF COMPETENCE

Background

This proposal responds to IOTC Resolution 10/01 which requires CPCs to adopt a quota allocation system (or other relevant measure) at its plenary session in 2012 for the yellowfin and bigeye tunas and Swordfish. It is a **revision** to Proposal B submitted by the Republic of Seychelles to the IOTC Technical Committee on Allocation Criteria held in Nairobi on 16-18th February 2011, hereafter referred to as the ‘Nairobi meeting’. As in the first proposal, allocation criteria are presented within a quota allocation system. A **revised** Explanatory Note ([Addendum 1](#)) accompanies and should be read in conjunction with this proposal.

The revised proposal maintains recognition of the legitimate sovereign rights and aspirations of coastal states, in particular small island developing coastal states and territories and small and vulnerable economies, and the interests of distant water fishing nations that have historically fished in the IOTC area of competence. However, the revised proposal responds to several concerns raised by coastal states at the Nairobi meeting, in particular the need to define mechanisms by which all coastal states may benefit from a quota share regardless of catch history.

We continue to propose a hybrid scheme based on catch per area in the EEZs and fishing zones of coastal states, and on historical levels of catch by all eligible flag state fishing vessels on the high seas. As more than 50% of historical catches have been taken on the high seas this does not disadvantage distant water fishing nations that have historically invested in the Indian Ocean fisheries whilst by considering where the fish are caught it recognises the sovereign rights of coastal states to a share of the resource. *A zonal attachment basis for quota allocation systems is well established in regional institutional agreements and international policy discourse* (see Annex 2).

Recognising that the lack of historical catch data has often arisen from extenuating socio-political circumstances rather than lack of participation in the fisheries, coastal states lacking a significant catch history, here defined as ‘disadvantaged States’, will share a portion of the overall TAC on the basis of socio-economic criteria.

The revised proposal continues to ensure that, in the short term, the status quo is approximately maintained whilst over the longer term the development plans of coastal states can be realised. By providing an objective framework to clearly define the baseline allocation to each CPC at the start of the quota allocation system, it avoids uncertainty that would follow from having less clearly defined criteria that require negotiation at the start of each new quota allocation period. It thus provides a sound basis for sustainable management of fish stocks.

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 and bigeye tuna stocks might have been over or fully exploited in recent years;

RECOGNISING that during the 13th IOTC scientific meeting held in Seychelles from 6 to 10 December 2010, the Scientific Committee recommended that yellowfin and bigeye tuna catches should not exceed the MSY levels which have been estimated at 300,000 tonnes for yellowfin and at 102,000 tonnes for bigeye tuna;

RECOGNISING that IOTC Resolution 10/01 requires the development of a quota allocation system for yellowfin and bigeye tuna stocks and for swordfish stocks;

ACKNOWLEDGING that the implementation of a TAC without a quota allocation system would result in an inequitable distribution of the catches and fishing opportunities among the 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;

TAKING INTO ACCOUNT the sovereign rights of coastal states for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, within their respective exclusive zones in accordance with Article 56 (1) of the United Nations Convention on the Law of the Sea, Montego Bay of 10 December 1982;

NOTING the importance of applying the precautionary approach for the management of the tropical tuna and swordfish stocks, in particular yellowfin and bigeye tuna in the Indian Ocean;

NOTING the 13th Scientific Committee recommendation to develop a Compliance Monitoring Scheme;

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

PART 1¹

GENERAL PROVISIONS

1. *Use of terms*

1.1. For the purposes of this proposal:

- a) The term ‘CPC’ will be used as shorthand to include all IOTC members and Cooperating non contracting parties to IOTC.
- b) ‘Disadvantaged CPC’ are defined as those coastal States with a baseline nominal catch proportion of less than 3% (averaged across all IOTC species with a TAC), but excluding CPCs that have historically operated flagged vessels over 24 m on the high seas in the IOTC area of competence and excluding CPCs categorised as ‘developed’ by UN criteria (section 3 and 4).
- c) ‘Fish’ means all or any identified species of highly migratory fish stocks covered by the IOTC convention.
- d) The ‘Quota Allocation System’ is the totality of the mechanism described in this proposal for allocating resource rights, implementation and management (monitoring, compliance etc) of those rights
- e) The ‘Total Allowable Catch’ (TAC) is the upper limit for the sum of all CPC catches of a fish species in a particular year within the IOTC area of competence (section 4).
- f) The ‘Effective TAC’ is the total allowable catch minus any ‘Set Aside’ amount agreed by the Commission at the start of the quota allocation period (e.g. to allow for new entrants) (section 5).
- g) The ‘Supplementary TAC’ is the portion of the Effective TAC removed for the group of Disadvantaged CPCs (section 5).
- h) The ‘Adjusted TAC’ is the Effective TAC minus the Supplementary TAC (section 5).
- i) The ‘Baseline Nominal Catch Proportion’ is the long-term base allocation proportion (%) to each eligible CPC defined at the start of the programme in 2012 before any deductions are applied (Section 6).

¹ Note: Substantive revisions are highlighted in yellow

- j) The ‘Baseline Supplementary Allocation Proportion’ is the long-term base allocation (%) to each eligible Disadvantaged CPC defined at the start of the programme in 2012 before any deductions are applied (Section 6).
- k) The ‘Adjusted Nominal Catch Proportion’ is the nominal allocation proportion (%) to a CPC after adjustments to the baseline to accommodate factors such as new entrants to the fishery or permanent trade of quota, if permitted (Section 7).
- l) The ‘Nominal Catch Allocation’ is the nominal allocation at the start of any specific quota allocation period before any adjustments for membership or compliance (see section 8).
- m) The ‘Supplementary Catch Allocation’ is the nominal allocation to Disadvantaged CPCs at the start of any specific quota allocation period, before any adjustments for membership or compliance, and is derived from the Baseline Supplementary Allocation Proportion (Section 8).
- n) The ‘Preliminary Catch Allocation’ is the nominal allocation to Disadvantaged CPCs prior to addition of the Supplementary Catch Allocation and is derived from the Baseline Nominal Catch Proportion (Section 8).
- o) The ‘Effective Allocated Catch Limit’ is the catch allocated to a CPC for a specific quota allocation period after deductions and/or additions (section 8).
- p) The ‘Historical Reference Period’ defines the period for which historical data will be analysed in setting the baseline nominal catch proportion (section 3).
- q) ‘The ‘Quota Allocation Period’ is the short term allocation period, that may be varied, during which the Effective Allocated Catch Limit applies.
- r) The term ‘Quota’ will be used as shorthand to describe the effective allocated catch limit allocated to a particular CPC.
- s) ‘Transfer’ refers to a temporary exchange of an allocation or part allocation, including renting such allocation to a third party (section 10).
- t) ‘Trade’ means the permanent purchase or exchange of a quota allocation (section 10).
- u) ‘Artisanal vessels’ refers to any vessel within a coastal CPC that fishes for tuna or tuna like species and that is less than 24 m in length and therefore not on the IOTC list of authorised vessels. CPC artisanal vessels are only authorised to fish inside the EEZ of the CPC.
- v) ‘Artisanal catch’ refers to the catch of tuna and / or tuna like species taken by artisanal vessels.

2. Objective

2.1. The objective of this proposal is to:

- define the rights allocation mechanism (allocation criteria) amongst members and cooperating non contracting parties of IOTC to a share of the catch of any fish for which IOTC sets a total allowable catch limit (currently recommended for yellowfin tuna, big-eye tuna and swordfish); and,
- define the mechanism for implementing the quota allocation system, identifying the duties of the responsible party amongst the different bodies and CPCs of IOTC

3. Application and Eligibility for receiving quota

3.1. The defined historical reference period for determining eligibility to the quota allocation system and for setting the baseline nominal catch proportion will be from 1981 to the December 2010, the latter date being the most recent information available to IOTC prior to adoption of the quota allocation system in 2012 as required in Resolution 10/01.

- 3.2. The rights allocation mechanism defined in this proposal relates to a single species allocation. The same mechanism will be applied to each IOTC fish species for which a TAC has been agreed by the Commission.
- 3.3. A proportion of the total allowable catch will be set aside for new coastal state entrants only. The level of the catch to be ‘*Set Aside*’ for new entrants will be agreed by the Commission at start of the quota allocation system and will be reviewed and adjusted as appropriate at the end of each quota allocation period.
- 3.4. The balance of the TAC remaining after removal of the Set Aside will be the Effective TAC to be allocated to all eligible CPCs. A portion of the Effective TAC will be removed as a Supplementary TAC to be allocated to Disadvantaged CPCs, and the remaining portion, the Adjusted TAC, will be allocated to all eligible CPCs.
- 3.5. New entrant Distant Water Fishing Nations will not be excluded from the fishery and can enter the fishery if they meet the membership criteria and have rented or purchased quota made available by another CPC for transfer or trade. They will not be eligible to receive any set aside.
- 3.6. A **baseline nominal catch proportion** (%) for each fish species will be allocated to all coastal states within the IOTC area of competence, irrespective of membership status, and to all existing distant water fishing nations with a catch history during the defined reference period within the IOTC Area of Competence that are currently members or Cooperating non contracting parties of IOTC. (See Section 6 for the control rules for defining the baseline nominal catch proportion).
- 3.7. A **baseline supplementary catch proportion** (%) for each fish species will be allocated to all coastal states defined as Disadvantaged CPCs within the IOTC area of competence, irrespective of membership status (See Section 6 for the control rules for defining the baseline supplementary catch proportion)
- 3.8. When setting the **effective allocated catch limit** only full member CPCs can receive 100% quota allocation before other adjustments. Cooperating non contracting parties will be eligible to receive only 80% of the nominal catch before other adjustments. Non members will not be eligible to receive an effective allocated catch limit.
- 3.9. The TAC, Effective TAC (including Supplementary TAC and Adjusted TAC) and effective allocated catch limits will be set for a Quota Allocation Period of three years in the first instance to allow fleets to plan accordingly enabling greater economic stability. The effective allocated catch limit will only be varied during that three year period if the Science Committee indicates that the status of the stock has significantly changed and the TAC must be adjusted early. The Quota Allocation Period will be reviewed by the Commission after three years with advice from the Science Committee and subsequent periods set may be varied as appropriate.

PART 2

RIGHTS ALLOCATION

4. *Setting the Total Allowable Catch: Defining a Management Procedure*

- 4.1. The *Assessment/Management Procedure* for setting the TAC will be defined by the Science Committee and its associated Working Groups specifically the Working Group on Tropical Tunas and the Working Group on Billfish, based on best available science and stock status. It will take into account any uncertainty in the stock assessments and set the level of TAC accordingly. This procedure will define the mechanism for setting the Total Allowable Catch. It will also define whether the TAC for a species relates to the whole of the IOTC area of competence, or to sub areas for the species in question.
- 4.2. The assessment/management procedure will define the frequency with which stock assessments shall be undertaken with reference to stock status and both targeted and incidental catch levels, and any indicators that might trigger the need for a stock assessment earlier than planned if assessments are not to be undertaken annually.

5. *Setting the Effective Total Allowable Catch and apportioning between Supplementary TAC and Adjusted TAC*

- 5.1. After applying the management procedure and having set the TAC for the fish species for the quota allocation period, the agreed set aside amount will be subtracted.
- 5.2. A proportion of the Effective TAC will be removed as a Supplementary TAC for Disadvantaged CPCs, with the proportion calculated by dividing the combined EEZ area of Disadvantaged CPCs by the total area of the IOTC area of competence. The remaining portion of the Effective TAC is termed the Adjusted TAC.
- 5.3. The Supplementary TAC and Adjusted TAC (see 'K' and 'L' in Table 5) will be allocated amongst all eligible CPCs according to the control rules defined in Sections 6 to 8.

6. *Setting the Baseline Nominal Catch Proportion and the Baseline Supplementary Allocation Proportion*

- 6.1. A hybrid scheme based on catch per area in the EEZs of coastal states and on historical catch levels by all eligible flag state fishing fleets on the high seas will be applied to set the baseline nominal catch proportion.
- 6.2. The following control rules will be applied to each species for which a TAC has been set to establish the baseline nominal catch proportion:
 1. The total catch taken by all CPC vessels in the EEZ of each coastal state (including that CPCs artisanal catches) will be calculated for the reference period (1981-2010). (A, see Annex 1, Table 1, transcribed to Table 2)
 2. The proportion of the total catch taken in each EEZ, will be calculated $[(\text{Total Catch in Country EEZ during reference period} / \text{total catch in IOTC area of competence during reference period}) * 100\%]$ (B, Annex 1, Table 1, Table 2)
 3. The total high seas catch by flag state during the reference period will be calculated (C, Annex 1 Table 1, Table 2).
 4. The high seas catch by flag state (from C) will be calculated as a proportion of the sum of the total catch in the IOTC area of competence during the reference period (from A) $[(\text{Total Catch by flag state from the high seas during reference period} / \text{sum total catch in IOTC area of competence during reference period}) * 100\%]$ (D, Annex 1, Table 1, Table 2)
 5. The baseline nominal proportion of the catch (unadjusted) attributable to each country will be calculated based on the sum of the catch in the EEZ plus the catch by flag state on the high seas (i.e. B+D). This will be called the baseline nominal catch proportion (E, Annex 1, Table 2)
- 6.3. Disadvantaged CPCs will develop a scheme based on socio-economic criteria in order to calculate the baseline supplementary allocation proportion (F, Annex 1, Table 2)
- 6.4. The baseline nominal catch proportion is set once only at the start of the quota allocation system and is based on historical catches by location up to that point in time. Likewise, the baseline supplementary allocation proportion is set once only and will be based on socio-economic criteria established at the start of the quota allocation system. The first and all future quota allocations will start from these baselines.

7. *Adjusted Nominal Catch Proportion and Adjusted Supplementary Allocation Proportion*

- 7.1. All quota allocations are derived from application of control rules for the effective allocated catch limit to the baseline proportions. However, there are three factors that may result in a need to adjust the baseline as an intermediate step prior to setting the quota:
 - (i) Due to the fact that artisanal catches have been poorly reported to date, it may be necessary to make an adjustment after 5 years to incorporate more accurate artisanal catch data after implementing recommendations for artisanal fishery data reporting in Resolution 10/01. At present the IOTC catch and effort database estimates artisanal catches. It will only be necessary to update the baseline nominal proportion if those estimates differ significantly from the improved estimates of artisanal catch that become available.

- (ii) Over time, coastal State CPCs may cease to be classified as ‘Disadvantaged’ according to the criteria applied here and will no longer benefit from Supplementary TAC. The mechanisms to review eligibility for Supplementary TAC should be defined on adoption of this system.
- (iii) To accommodate any permanent trade of quota between CPCs should this be permitted in future (see paragraph 10.2)

Any adjustments will be called the ‘Adjusted Nominal Catch Proportion’ and the ‘Adjusted Supplementary Allocation Proportion’. In terms of the former, the original historical reference period will not be adjusted in such circumstances.

7.2. At the start of the quota allocation system no adjustments will be made to the baseline proportions and control rules are not defined here for making adjustments. This will only become necessary depending on future decisions of the Commission with respect to the permanent trade of quota (see paragraphs 10.2). The present control rules therefore only refer to the Baseline Nominal Catch Proportion and Baseline Supplementary Allocation Proportion.

8. *Setting the Nominal Catch Allocation, the Preliminary Catch Allocation and the Effective Allocated Catch Limit*

8.1. The baseline nominal catch proportion and baseline supplementary allocation proportion are set only once at the start of the quota allocation system. The effective allocated catch limit is calculated at the start of every quota allocation period. The Effective Allocated Catch Limit is not necessarily in proportion to the baseline proportions. It is the quota (catch-limit) allocated to a CPC for a specific period after application of a number of control rules.

8.2. To calculate the Nominal Catch Allocation for each CPC the following control rules are applied (see Annex 1 Table 5).

1. The product of the baseline nominal catch proportion and the Adjusted TAC provides the Nominal Catch Allocation for non-Disadvantaged CPCs and the Preliminary Catch Allocation for Disadvantaged CPCs.
2. The product of the baseline supplementary allocation proportion and the Supplementary TAC provided the Supplementary Catch Allocation for Disadvantaged CPCs only.
3. For Disadvantaged CPCs, the final Nominal Catch Allocation is the sum of the Preliminary Catch Allocation (6) and the Supplementary Catch Allocation.

8.3. To calculate the Effective Allocated Catch Limit for each CPC the following control rules (see Annex 1 Tables 3-5) must be applied in the order shown.

1. *Membership status:* Adjustment 1. Membership status (H, Table 4) determines eligibility to receive a quota (see paragraph 3.8) and the relevant proportions are recorded in Column I (Table 4) [members entitled to 100% quota before other adjustments; cooperating non contracting parties, 80%; non members, 0%].
2. *Compliance:* Adjustment 2. The Standard Compliance Table (Annex 1 Table 3, see paragraphs 13.1 - 13.5) is applied to determine any reduction of allocation to any particular CPC due to non compliance. The balance of quota (G, Table 3) that remains to be allocated after penalty deductions for non compliance is expressed as a proportion and is summarised in Column J in Table 5 for all CPCs. The product of Adjustment 1 (I) and Adjustment 2 (G) is the combined adjustment, J, and it is applied to the nominal catch allocations (M1, M2) to determine the effective allocated catch limit after penalty adjustments, N [M1 or M2 x J, tonnes, Table 5].

‘Penalty deductions’ are treated as follows:

- CPC: held in a CPC specific set aside (O, Table 5) and can be reclaimed by the CPC once either membership status has been confirmed, or full compliance has been demonstrated to the satisfaction of the Compliance Committee;
 - Non Member: the full nominal catch allocation of non members will be assigned to an unallocated balance (P, Table 5) for redistribution as a ‘bonus’ to eligible CPCs
3. *Reallocation of unallocated balance of quota*: Final Adjustment. The sum of any unallocated balance of quota will be reallocated in equal parts to all remaining fully compliant CPCs eligible to receive a quota for that period. This is the ‘bonus’ allocation, Q (Table 5) [(Sum of unallocated balance, P / Number of fully compliant CPCs eligible for a quota), tonnes]
 4. *Final effective Allocated catch limit, i.e. CPC Quota*: The final effective allocated catch limit, or CPC quota for the current quota allocation period is the sum of the effective allocated catch limit (N) and any bonus applied (Q) (R, tonnes, Table 5).

PART 3 IMPLEMENTATION

9. *Utilisation of a quota*

- 9.1. The effective allocated catch limit is the quota allocated to a particular CPC. CPCs will be free, subject to appropriate bilateral agreements in the case of waters within coastal state EEZs, to take their quota anywhere within the area to which the TAC for the species in question relates i.e. the IOTC area of competence or sub areas. The Science Committee will monitor the spatial distribution of catches in order to ensure that this does not lead to excessive fishing in any one particular area or part of the stock (e.g. on juveniles).
- 9.2. In the event that CPCs have received more quota than they can fish themselves they may transfer all or part of their quota to one or more CPCs to take on their behalf anywhere in the IOTC area of competence. They may also choose to allocate part of any surplus to a voluntary CPC set aside for one or more years, and that may or may not be taken up during that quota allocation period.
- 9.3. CPCs receiving a quota will be responsible for defining how that quota will be allocated amongst its fleet and for monitoring and ensuring compliance of the uptake of the quota by its fleet.
- 9.4. With the exception of artisanal vessels, only vessels on the IOTC record of authorised vessels will be eligible to receive a quota from their flag state. CPCs will however need to indicate the number, size and fishing gear of artisanal vessels fishing for tuna.
- 9.5. Where a quota is transferred or traded, the CPC receiving the quota will take over responsibility for monitoring and ensuring compliance of the uptake of the quota by its fleet.

10. *Trade and transfers of a quota between CPCs*

- 10.1. The transfer of quota or part of a quota between CPCs is permitted. Quota may not be transferred to any third party that is not an IOTC member or cooperating non contracting party.
- 10.2. For the first fifteen years of the quota allocation system, or three quota allocation periods, whichever is greater, the trade of quota or part of a quota between CPCs is NOT permitted. After this time, this will be reviewed by the Commission and a decision made as to whether permanent trade of quota will be permitted. Permanent trade between CPCs has the effect of modifying the baseline nominal catch proportion, by removing it from one CPC and adding it to another. Appropriate control rules will need to be developed if permanent trade of quota is to be permitted in future.

11. *Reallocation of quota between years*

- 11.1. Underutilised quota in any one year by any CPC will NOT be added to that CPC allocation for the following year.
- 11.2. The Compliance Committee will define the sanctions to be imposed in the case that a CPC exceeds its quota in any one year. This will be reflected in the Standard Compliance Table.

12. *Obligations of CPCs receiving a quota*

All recipients of a quota

- 12.1. Receipt of a quota carries the obligation to adhere to and report on the rules of implementation of the quota system as defined in this proposal and to adhere to and apply all other relevant IOTC conservation and management measures.
- 12.2. The Compliance Committee of IOTC will arbitrate to address any disputes that may arise (e.g. arising from application of the allocation criteria) and ensure that quota is utilised appropriately.
- 12.3. CPCs anticipating to receive a quota will submit a Utilisation Plan to the IOTC Secretariat at least 30 days prior to the Commission Meeting detailing how that quota will be utilised amongst vessels flagged to that CPC, or any transfers anticipated, or any voluntary set aside.

Coastal States quota

- 12.4. During the first fifteen years of the quota allocation system coastal states that receive a quota allocation that exceeds their current capacity to fish may transfer their quota to flag state CPCs that have fishing capacity, for example, to those that have fished during the historical reference period in their zone thereby maintaining the status quo and ensuring economic stability of the existing fishing fleet. Where existing agreements occur between DWFNs and coastal states for access to resources and that overlap with the introduction of the quota allocation system, these will remain in place without duplication, and with amendments to reflect permitted catch levels consistent with combined quota allocations.
- 12.5. The terms of the transfer (rent) of the allocation are for negotiation between the Coastal State and fishing flag state and will be undertaken subject to market forces. The Compliance Committee will address any disputes that may arise and ensure that quota is utilised appropriately.
- 12.6. At the start of the quota allocation system Coastal States will update their fleet development plans (Resolutions 03/01; 09/02) which will be linked to the quota allocated to them. Over the first fifteen year period any uptake of quota by coastal states will also be reflected against the report on the implementation of their fleet development plan. As the coastal state develops its own capacity to fish during this period, it will reduce the amount of quota offered for transfer accordingly.

High Seas quota

- 12.7. In respect of the baseline nominal catch proportion and the effective allocated catch (quota) allocated to flag state CPCs in any subsequent year in respect of historical levels of catch on the high seas up to 2012 (the ‘high seas quota’ see Annex 1, Table 1), the Commission agrees that all transfers of ‘high seas’ quota will be undertaken subject to market forces.

New Entrants / Set Aside

- 12.8. The set aside allocation will only be available to new Coastal State entrants that have attained the status of Cooperating non contracting party or full Member and the same control rules for allocation as defined above will be applied. As part of their application to IOTC new applicants shall also indicate the amount of quota they wish to receive from that available in the set aside. The Compliance Committee will review that application and the Commission will decide on the level of the set aside allocated to the new entrant. New DWFN may enter the fishery through transfer or trade of quota.

- 12.9. New entrants, like any other CPC, will be able to rent additional quota that may be made available for transfer by another party.

13. *Compliance*

- 13.1. The record of compliance in the application of IOTC conservation and management measures by the CPCs wishing to participate in the quota allocation process will be evaluated annually against a Standard Compliance Table (Annex 1, Table 3). The standard compliance table will be harmonised with other compliance rules defined by the Compliance Committee. Application of the standard compliance table is amongst the criteria used to set the Effective Allocated Catch Limit for each quota allocation period. Where the quota allocation period is more than one year (e.g. 3 years) this allows the uptake of any CPC quota held as a penalty in the CPC specific set aside to be taken up during the quota allocation period once compliance is demonstrated at the next Compliance Committee meeting (i.e. the next year), thus the penalty will apply for a minimum of one year.
- 13.2. In addition to conservation and management measures, the standard compliance tables will also include details on payment of contributions to IOTC. Failure to pay IOTC contributions in any year will result in a sliding scale of penalties with a 20% reduction in quota for the first year, 40% for the second year in arrears, and will disqualify that CPC from receiving a quota allocation for that quota allocation period where the CPC is three or more years in arrears.
- 13.3. There will be one standard compliance table produced each year for each participating CPC – these tables will collate and summarise the data already generated by the Secretariat each year for the review of the Compliance Committee. Additionally it will collate and summarise any additional reporting requirements related to monitoring and control of this quota allocation system that may be introduced from time to time.
- 13.4. A summary table will be prepared by the Secretariat that indicates the eligibility of each CPC to participate in the quota allocation scheme each year, and the level of any reduction in quota that will be applied that year arising from sanctions applied in respect of failure to comply with IOTC conservation and management measures (Annex 1, Table 4).
- 13.5. It is proposed that the Compliance Committee reviews and finalises the proposed standard compliance table, and level of sanctions during its meeting in 2012.

14. *Monitoring implementation*

- 14.1. The Compliance Committee meeting held prior to the Commission Plenary Session in 2012 will discuss any additional requirements that are necessary to administer and monitor the quota allocation scheme over and above the current mandatory requirements for reporting against IOTC conservation and management measures. CPCs are encouraged to submit proposals one month prior to the meeting.

15. *Duties of the IOTC, the Secretariat, its various bodies and of CPCs*

- 15.1. The following table provides a timeline for implementation of the quota allocation system and identifies the duties of the different bodies of the Commission.

Responsible body and actions to be taken	Month
Technical meeting on quota allocation: <ul style="list-style-type: none"> Agree proposal on allocation criteria and allocation system. Recommend proposal to Commission 	1
Commission Meeting : <ul style="list-style-type: none"> Adopt proposed quota allocation criteria and a quota allocation system for implementation (specific parameters to be applied within the system can be further developed and adopted after the system is agreed); 	2

<ul style="list-style-type: none"> Agree the factors to be taken into consideration when developing a management procedure for the TAC; 	
IOTC Secretariat and CPCs <ul style="list-style-type: none"> The Secretariat to develop and validate with CPC's their historical catch record, as soon as possible for years 1981-2010. 	6
WPB and WPTT: <ul style="list-style-type: none"> Develop a management procedure for setting the TAC for billfish and tuna species 	8, 9
Science Committee: <ul style="list-style-type: none"> Review, approve and recommend the management procedure to the Commission 	11
CPCs: <ul style="list-style-type: none"> Submit proposals to the Compliance Committee for additional monitoring and control requirements needed to administer the quota allocation system and indicate how they would be reflected in the standard compliance table. 	13
Compliance Committee: <ul style="list-style-type: none"> Review proposals for additional monitoring and control related to implementation of the quota allocation system and recommend them to the Commission Agree the sanctions to be applied in the standard compliance table, update the table to reflect additional monitoring and control requirements, and recommend them to the Commission 	14
Commission <ul style="list-style-type: none"> Adopt the management procedure for setting the TAC Agree the historical reference period for application by subsidiary bodies in calculation of the baseline nominal catch proportion. Agree parameters used in the control rules to set the effective allocated catch limit (Membership, compliance, etc) Agree the level of set aside if any. Define the quota allocation period to be applied. 	14
WPB and WPTT: <ul style="list-style-type: none"> Apply management procedure and set the TAC for Yellowfin tuna, big-eye tuna and swordfish 	20, 21
IOTC Secretariat: <ul style="list-style-type: none"> Apply control rules for the agreed reference period to determine the baseline nominal catch proportion by CPC 	22
Science Committee: <ul style="list-style-type: none"> Review, approve and recommend the TAC derived by WPTT to the Commission Review and approve the estimates of baseline nominal catch proportion. 	23
CPCs <ul style="list-style-type: none"> Fulfil all mandatory reporting requirements as required under IOTC conservation and management measures Submit Utilisation Plan to IOTC detailing how the quota will be utilised (i.e. mechanism of allocation amongst domestic fleets, level of transfers anticipated and to which CPC, etc) Submit revised fleet development plans. 	Variable deadlines
IOTC Secretariat <ul style="list-style-type: none"> Complete usual generation of reports on compliance with IOTC conservation and management measures submitted Complete the Standard Compliance Table Confirm that CPC plans for utilisation of quota conform to rules defined in Part 3 of the proposal. 	25

Compliance Committee: <ul style="list-style-type: none"> Review completed standard compliance table and agree its application for the allocation of quotas – Recommend to the Commission. Review summary of CPC utilisation plans and for any that do not conform, recommend course of action to the Commission. 	26
Commission: <ul style="list-style-type: none"> Adopt the level of TAC set for Yellowfin tuna ,big-eye tuna and swordfish Adopt the completed standard compliance table Agree CPC utilisation plans (with revisions as appropriate) 	26
IOTC Secretariat <ul style="list-style-type: none"> Apply agreed level of TAC and control rules and derive effective allocated catch limits per CPC (quota). Inform each CPC of its quota for the present quota allocation period. 	27
CPCs <ul style="list-style-type: none"> Utilise quota according to agreed utilisation plan Submit any complaints to the Compliance Committee Comply with all IOTC conservation and management measures and ensure that quota allocations are not exceeded. 	From 27
Compliance Committee <ul style="list-style-type: none"> Review complaints and require CPCs to act according to decisions of the Committee 	28
All bodies <ul style="list-style-type: none"> Report on and review the implementation of the quota allocation system on an annual basis during the defined quota allocation period. 	Annual cycle

Annex 1: Standard tables to be applied in the quota allocation system for IOTC.

Table 1: Setting the Baseline nominal Catch Proportion (%): For each species for which the Commission has agreed a TAC, and for the defined reference period, to calculate the total catch (A) and proportion (%) of the total catch (B) in the EEZ of coastal states within the IOTC area of competence and the total high seas catch by flag states that have fished during the reference period (C)

Table 2: Setting the baseline nominal catch proportion: Application of the values derived in Table 1 to set the baseline nominal catch proportion (E). A baseline supplementary allocation proportion for Disadvantaged CPCs has been added to the system (F) but requires agreement on quantitative socio-economic criteria to define proportions

Table 3: Standard Compliance Table, to set the level of reduction of the nominal catch for each CPC due to non compliance, G. This Table will be completed by the Compliance Committee during its meeting in 2012 when the level of sanctions for non compliance will be agreed. Over time the Standard Compliance Table is expected to evolve. Comments and examples are provided for guidance only.

Table 4: Summary of eligibility of each CPC to receive a full quota based on membership status (H,I) and compliance with IOTC conservation and management measures (G), and calculation of the combined adjustment (J) to be applied to the nominal catch allocation when setting the effective allocated catch limit.

Table 5: Setting the Effective allocated catch limit and final quota allocation, indicating the nominal catch allocations (M1,M2), effective allocated catch limit (N) and penalty CPC set-aside (O), the bonus allocation (Q) and final quota allocated to each CPC (R) for the quota allocation period.

Table 1: Setting the Baseline nominal Catch Proportion (%): For each species for which the Commission has agreed a TAC, and for the defined reference period, to calculate the total catch (A) and proportion (%) of the total catch (B) in the EEZ of coastal states within the IOTC area of competence and the total high seas catch by flag states that have fished during the reference period (C).

		Country	Catches within Coastal State EEZ within the IOTC area of competence																								C. TOTAL HIGH SEAS BY FLAG STATE	D. FLAG STATE HIGH SEAS CATCH (C) AS A % OF THE SUM TOTAL LANDED CATCH (A)
			e.g. Australia																									
Flag States fishing (note, only necessary to retain those that fished during Reference Period.	Coastal state within IOTC area of competence	e.g. Australia																										
	Distant Water fishing Nation	e.g. Japan																										
		A. TOTAL CATCH IN ZONE OF COUNTRY																										
		B. % OF CATCH IN ZONE OF COUNTRY																										

Table 2: Setting the baseline nominal catch proportion. Application of the values derived in Table 1 to set the baseline nominal catch proportion (E). A baseline supplementary allocation proportion for Disadvantaged CPCs has been added to the system (F) but requires agreement on quantitative socio-economic criteria to define proportions.

	Country	A. Total catch in zone of country for reference period (mt)	B. Proportion of total catch taken by zone (%)	C. Total high seas catch taken by flag state for period	D. High seas catch taken by flag state (in C) as a proportion of the sum total landed catch (in A)	E. Baseline Nominal catch proportion (B+D)	F. Baseline Supplementary allocation proportion (Disadvantaged CPCs only)
Coastal State within IOTC area of competence	e.g. AUSTRALIA						
Distant Water fishing Nation	e.g. JAPAN						
	HIGH SEAS		n%				
	TOTAL		100.00%		n%	100.000%	

Table 3: Example Standard Compliance Table, to set the level of reduction of the nominal catch for each CPC due to non compliance, G. This Table will be completed by the Compliance Committee when the level of sanctions for non compliance will be agreed. Over time the Standard Compliance Table is expected to evolve. Comments and examples are provided for guidance only.

Standard Compliance Table for: (CPC)			Year
Relevant Conservation and management measures	Compliance (Data reported to IOTC standards) (Y/N)	Comments (e.g. reported, but not to IOTC standards)	Proposed level of reduction in quota allocation for failure to comply with this measure.
Payment of membership fees			(e.g. 20% reduction of quota for each year's non payment with 100% reduction after 3 years)
Attendance at IOTC meetings			
Reporting of mandatory statistics (08/01) and other reporting requirements [authorised vessels (07/02); fleet development plans (03/01 & 09/02); port inspections (05/03); Bigeye tuna statistical document programme (01/06); VMS (06/03); transshipment by large-scale fishing vessels (08/02); Observer schemes (10/04)]			(e.g. Variable sanctions for different elements of the mandatory reporting requirements)
CPC vessels listed on IUU list (09/03)			(e.g. A higher level of sanction if CPC does not demonstrate control of its flag vessels according to IOTC standards)
Any new mandatory reporting requirements defined by the compliance committee for monitoring and enforcing the quota allocation system scheme			(e.g. A high level of sanction - CPC must demonstrate ability to enforce the quota allocation system)
Total deductions to quota for this CPC this year [sum of all above – if greater than 100%, apply 100%]			(Sum of all above)
G. Balance (proportion) of quota to be allocated this period [i.e (100-total deductions)/100]			G, transfer this value to Table 4 for each CPC

Table 4: Summary of eligibility of each CPC to receive a full quota based on membership status (H,I) and compliance with IOTC conservation and management measures (G), and calculation of the combined adjustment (J) to be applied to the nominal catch allocation when setting the effective allocated catch limit.

Country	H. Membership status	I. Adjustment 1 based on membership Status	G. Adjustment 2 : Balance of quota to be allocated after total penalty deductions arising from the Standard Compliance Table (Table 3))	J. Combined Adjustment 1 and 2 to be applied in setting the effective allocated catch limit (I*G)	Summary explanation of factors leading to deductions and any particular issues / uncertainties to be drawn to the attention of the Compliance Committee / Commission.
Proportion of baseline nominal catch retained for each category of CPC	Member	1.0			
	Coop NCP	0.8			
	Non Member	0.0			
Coastal State within IOTC area of competence	e.g. Australia	Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Coop NCP	0.8		
		Coop NCP	0.8		
		-	0.0		
		-	0.0		
		-	0.0		
		-	0.0		
		-	0.0		
Distant Water fishing Nation		Member	1.0		
		Member	1.0		
			1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Member	1.0		
		Coop NCP	0.8		
		Coop NCP	0.8		

Table 5: Setting the Effective allocated catch limit and final quota allocation, indicating the nominal catch allocations (M1,M2), effective allocated catch limit (N) and penalty CPC set-aside (O), the bonus allocation (Q) and final quota allocated to each CPC (R) for the quota allocation period. (Note that the colours applied to each column correspond to those in Boxes 1-4 of the explanatory note)

Country	H. Membership status	E. Baseline Nominal catch proportion (From Table 2) %	F. Baseline Supplementary allocation proportion (From Table 2) %	M1. Nominal catch allocation (tonnes) [E*K] and Preliminary catch allocation for disadvantaged CPCs	M2. Nominal catch allocation (tonnes) for disadvantaged CPCs from Supplementary catch allocation [F*L] + Preliminary catch allocation [M1]	J. Combined adjustments 1 and 2 to be applied in setting the effective allocated catch limit (from Table 4)	N. Effective allocated catch limit after adjustments 1 and 2 applied for allocation period [M1*J or M2*J]	O. Ring fenced penalty CPC set aside to be reallocated on membership &/or compliance [M1 or M2-N]	P. Unallocated balance	Q. Bonus allocation - from equal redistribution of unallocated balance (Sum of P) to eligible CPCs [sum of P / number eligible CPCs]	R. Final CPC allocation for this quota allocation period [effective allocated catch limit, N + bonus, Q]
TAC set in year / quota allocation period in question											
Agreed set aside								This applies only to members and coop NCPs	This applies only to non members	Only fully compliant members are eligible for the bonus	
K. Adjusted TAC											
L. Supplementary TAC											
CPC ALLOCATIONS											
Coastal State within IOTC area of competence	e.g. Australia	Member									
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
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	Member										
	Coop NCP										
	Coop NCP										
	-										
	-										
	-										
	-										
	-										
Distant Water fishing Nation	Member										
	Member										
	Exception										
	Member										
	Member										
	Member										
	Member										
	Member										
	Member										
	Coop NCP										
	Coop NCP										
TOTAL, all CPCs											

Annex 2: An established basis for zonal attachment in quota allocation systems

The global framework of fisheries agreements and legislation (including UNCLOS, Compliance Agreement, Code of Conduct for Responsible Fisheries and the Fish Stocks Agreement) provides some guidance as to the distribution of shared resources between States. These agreements allow us to defined four parameters that should be considered in quota allocation;

- Traditional fishing patterns and practices (i.e. historical fishing activity);
- Geographical distribution (i.e. zonal attachment);
- Coastal state preferences for fishing; and
- Fisheries dependency (i.e. social characteristics).

Using historical fishing on a geographic basis as described in this proposed mechanism as principle for quota allocation allows for both historic fishing activity and zonal attachment to be considered.

These four criteria and their applicability to different situations vary greatly between fisheries and while historical activity and zonal attachment may be possible to define and document in a set of quantitative indicators, the more socially related concepts of coastal state preference and fisheries dependency may be required to be described by more subjective and qualitative indicators.

As an example some of the factors used to calculate the zonal attachment by ICES (1978) include the following which can be quantitatively defined:

- the spawning areas;
- the distribution of eggs and larvae;
- the occurrence of juvenile fish; and
- the occurrence and migrations of the fishable part of the stock.

Quota sharing arrangements in the North Atlantic have been shown to be dependent on both historical harvesting patterns and zonal attachment as the primary dividing principles for shared stocks starting in the 1980s (Engesæter, 1993). These have increasingly become sophisticated in their methodologies as data from the fisheries and computing power have become more widely available. Examples of international fisheries cooperation based on zonal attachment include the agreement between Norway and the European Union (Ramstad, 2001). This arrangement is based on agreement on the zonal attachment of seven shared stocks in the North Sea. The agreement between Norway and Russia for the stocks of the Barents Sea used historical catches as the basis initially for quota allocation, with later quota allocations using zonal attachment as the basis. These examples have been shown to work well in most demersal stocks as there have been no large scale changes in stock migration and distributions. With the herring fisheries of the North Atlantic it is more difficult as the stocks are very dependent on environmental factors. It would be prudent therefore to consider longer time scales for straddling and migratory species where environmental factors are important in determining stock distributions and recruitment.

The FAO Expert Consultation on the management of shared fish stocks found that historically, the prime allocation criteria had been zonal attachment and historical catches (FAO, 2002). In relation to straddling fish stocks, zonal attachment was considered the critical factor in determining the segment of the stock within the EEZ(s), while historical fishing patterns were important in quota allocation for the high seas. In addition, the consultation noted various “supplementary” criteria that had been used, such as fisheries dependency, compliance and engagement in research and monitoring. The consultation also pointed out that the UN Fish Stocks Agreement did not provide guidance on the weights to be accorded to individual criteria. The weighting of these criteria would need to be determined on a fishery by fishery basis.

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Addendum 1
EXPLANATORY NOTE ON A REVISED PROPOSAL SUBMITTED BY REPUBLIC OF SEYCHELLES:**‘ON ESTABLISHING A QUOTA ALLOCATION SYSTEM FOR THE MAIN TARGETED SPECIES IN THE IOTC AREA OF COMPETENCE’****VERSION: 3RD FEBRUARY 2012**

INTRODUCTION

The IOTC Technical Meeting on Quota Allocation held in Nairobi in February 2011, hereafter referred to as the Nairobi Meeting, provided an opportunity for critical assessment of the quota allocation system submitted by the Republic of Seychelles. Based on the observations of delegates from other CPCs in plenary, and on discussions held in the sidelines of the technical meeting, a number of issues pertaining to the proposal by Seychelles were identified. This Explanatory Note details several important modifications that have made to the proposed quota allocation system by Seychelles in an attempt to address those issues.

Two critical areas for improvement were: (1) recognition of the need to allocate quota to all CPCs, even those lacking historical catch data, and (2) full incorporation of artisanal catches in the estimation of historical catch by area for the EEZs of coastal State CPCs. The revised quota allocation system proposed by Seychelles now explicitly incorporates these areas of concern in an objective and transparent framework.

In addition to these revisions and in response to concerns raised by distant water fishing nations (DWFN) at the Nairobi Meeting, we reiterate that the proposed system is designed so that, in the short term, the status quo is approximately maintained through trade in quota between CPCs. This will ensure economic stability for existing fleets, whilst over the longer term the development plans of coastal states can be realised in a phased and planned way.

Recognising the legitimate rights and aspirations of both coastal states and distant water fishing nations that have historically fished and invested in an area remains a significant challenge for developing equitable quota allocation systems. The revised framework presented here offers potential solutions to this challenge and specifically addresses the needs of small-island developing coastal states and territories and small and vulnerable economies.

This proposal describes a fair and transparent quota allocation system through a combination of suitable rights based quota allocation criteria and a phased implementation system. We continue to propose a hybrid scheme based on catch per area in the EEZs and fishing zones of Coastal States, and on historical levels of catch by all eligible flag state fishing vessels on the high seas. As more than 50% of historical catches have been taken on the high seas this does not disadvantage distant water fishing nations that have historically invested in the Indian Ocean fisheries whilst by considering where the fish are caught it recognises the sovereign rights of Coastal States to a share of the resource.

Further, the revisions made here explicitly recognise that a lack of historical catch information cannot constitute a barrier to obtaining a quota share if a system is to be demonstrated as equitable. In contrast to other proposals made at the Nairobi Meeting, we offer a mechanistic solution for calculating the proportion of quota that CPCs with limited or no historical catch are eligible for.

UNCLOS Article 56(1) defines coastal states sovereign rights within their EEZs. Coastal states have the necessary jurisdiction related to those sovereign rights giving them the power to regulate the terms of use relating to activities for the exploitation of the living resources in their EEZs. In the past this has included the sale of licences and agreements with third parties for them to fish inside the EEZ of a coastal zone for a defined period. Fixed term licences and agreements do not confer a future right to the resources within an EEZ. Any catch history within an EEZ indicates the resource availability within that EEZ and it is appropriate to attribute it to the coastal state that claims the sovereign rights. High seas catches by contrast are not claimed as sovereign rights and it may therefore be more appropriate to allocate quota on the basis of historical catch.

The global framework of fisheries agreements and legislation (including UNCLOS, Compliance Agreement, Code of Conduct for Responsible Fisheries and the Fish Stocks Agreement) provides some guidance as to the distribution of

shared resources between States. These agreements allow us to defined four parameters that should be considered in quota allocation;

- Traditional fishing patterns and practices (i.e. historical fishing activity);
- Geographical distribution (i.e. zonal attachment);
- Coastal state preferences for fishing; and
- Fisheries dependency (i.e. social characteristics).

Using historical fishing on a geographic basis as described in this proposed mechanism as principle for quota allocation allows for both historic fishing activity and zonal attachment to be considered.

These four criteria and their applicability to different situations vary greatly between fisheries and while historical activity and zonal attachment may be possible to define and document in a set of quantitative indicators, the more socially related concepts of coastal state preference and fisheries dependency may be required to be described by more subjective and qualitative indicators.

As an example some of the factors used to calculate the zonal attachment by ICES (1978) include the following which can be quantitatively defined:

- the spawning areas;
- the distribution of eggs and larvae;
- the occurrence of juvenile fish; and
- the occurrence and migrations of the fishable part of the stock.

Quota sharing arrangements in the North Atlantic have been shown to be dependent on both historical harvesting patterns and zonal attachment as the primary dividing principles for shared stocks starting in the 1980s (Engesæter, 1993). These have increasingly become sophisticated in their methodologies as data from the fisheries and computing power have become more widely available. Examples of international fisheries cooperation based on zonal attachment include the agreement between Norway and the European Union (Ramstad, 2001). This arrangement is based on agreement on the zonal attachment of seven shared stocks in the North Sea. The agreement between Norway and Russia for the stocks of the Barents Sea used historical catches as the basis initially for quota allocation, with later quota allocations using zonal attachment as the basis. These examples have been shown to work well in most demersal stocks as there have been no large scale changes in stock migration and distributions. With the herring fisheries of the North Atlantic it is more difficult as the stocks are very dependent on environmental factors. It would be prudent therefore to consider longer time scales for straddling and migratory species where environmental factors are important in determining stock distributions and recruitment.

The FAO Expert Consultation on the management of shared fish stocks found that historically, the prime allocation criteria had been zonal attachment and historical catches (FAO, 2002). In relation to straddling fish stocks, zonal attachment was considered the critical factor in determining the segment of the stock within the EEZ(s), while historical fishing patterns were important in quota allocation for the high seas. In addition, the consultation noted various “supplementary” criteria that had been used, such as fisheries dependency, compliance and engagement in research and monitoring. The consultation also pointed out that the UN Fish Stocks Agreement did not provide guidance on the weights to be accorded to individual criteria. The weighting of these criteria would need to be determined on a fishery by fishery basis.

In this revision, we first outline the major revisions that have been made to the Seychelles proposal. A summary of the quota allocation system proposed is provided in Boxes 1-5, noting that a number of the schematics in these boxes have been modified to incorporate the revisions and a new box has been added. Box 1 indicates the rights allocation mechanism. More details explaining how control rules for the quota allocation criteria will be applied are provided in Boxes 2 & 3 (the baseline nominal catch proportion and baseline supplementary allocation proportion) and Box 4 (the effective allocated catch limit, or quota). Box 5 describes the implementation of the quota allocation system. We also append the original text from the summary description of the system, further highlighting changes that have been made and including the original versions of the boxes to allow the reader to make clear comparisons.

MAJOR REVISIONS

In order to ensure all CPCs receive a quota share and that artisanal catch are incorporated, certain assumptions and definitions have been included in the revised framework. The modifications outlined below refer to the revised schematics (boxes) of the quota allocation system (see below).

- a) Given that several coastal State CPCs lack or have limited historical IOTC records for catch in their EEZ, a situation that results from a number of constraints, the revised framework makes provision for allocation of an amount of quota based on criteria unrelated to historical catch. Coastal State CPCs lacking or with limited historical catch, termed ‘disadvantaged CPCs’, will benefit from a portion of the Effective Total Allowable Catch (TAC).
- b) Disadvantaged CPCs are defined as those coastal States with a baseline nominal catch proportion of less than 3% (averaged across all IOTC species with a TAC). CPCs with flagged vessels over 24 m LOA that fish on the high seas in the IOTC area of competence will not be defined as disadvantaged CPCs even if their baseline nominal catch proportion is less than 3%. In addition, overseas territories of developed nations will not be defined as disadvantaged CPCs.
- c) A portion of Effective TAC will be removed for the group of disadvantaged CPCs (dCPCs) as defined in (b) (Box 1). This portion is termed the Supplementary TAC (suppTAC) and will be calculated based on the following criterion:

$$\text{suppTAC} = \frac{\text{Combined EEZ area of dCPCs} \times \text{Effective TAC}}{\text{IOTC area of competence}}$$

- d) The portion of the Effective TAC remaining after the removal of the Supplementary TAC is termed the Adjusted TAC. Based on the hybrid scheme of catch by area in coastal state EEZs & catch by flag state on the high seas, as per the original proposal, the Adjusted TAC will be used to calculate the nominal catch allocation for non-disadvantaged CPCs and a preliminary catch allocation for those disadvantaged CPCs with limited historical catches (Box 2).
- e) The Supplementary TAC will be used to calculate a supplementary catch allocation for disadvantaged CPCs. The allocation will be shared among disadvantaged CPCs on the basis of verifiable and quantifiable socio-economic criteria. If a disadvantaged CPC also has a preliminary catch allocation on the basis of limited historical catch (see d), the supplementary catch allocation will be added to that allocation (Box 3). Importantly, the introduction of a Supplementary TAC ensures that all CPCs will be eligible for quota allocation, including those with zero historical catch. Suitable socio-economic criteria will be identified at the 2nd IOTC Technical on Quota Allocation.
- f) Nominal artisanal catches reported to IOTC are considered as historical catches taken in the EEZs of the originating coastal State CPCs by domestic fleets, even though it is recognised that some artisanal catch has been taken of the high seas (Box 2)

Under the revised quota allocation system, Coastal State CPCs can receive quotas through at least one of the following mechanisms:

1. Quota allocation through the Supplementary TAC
2. Quota allocation through the Adjusted TAC on the basis of historical artisanal catch
3. Quota allocation through the Adjusted TAC on the basis of historical catch by foreign-flagged vessels licensed to fish in their EEZ

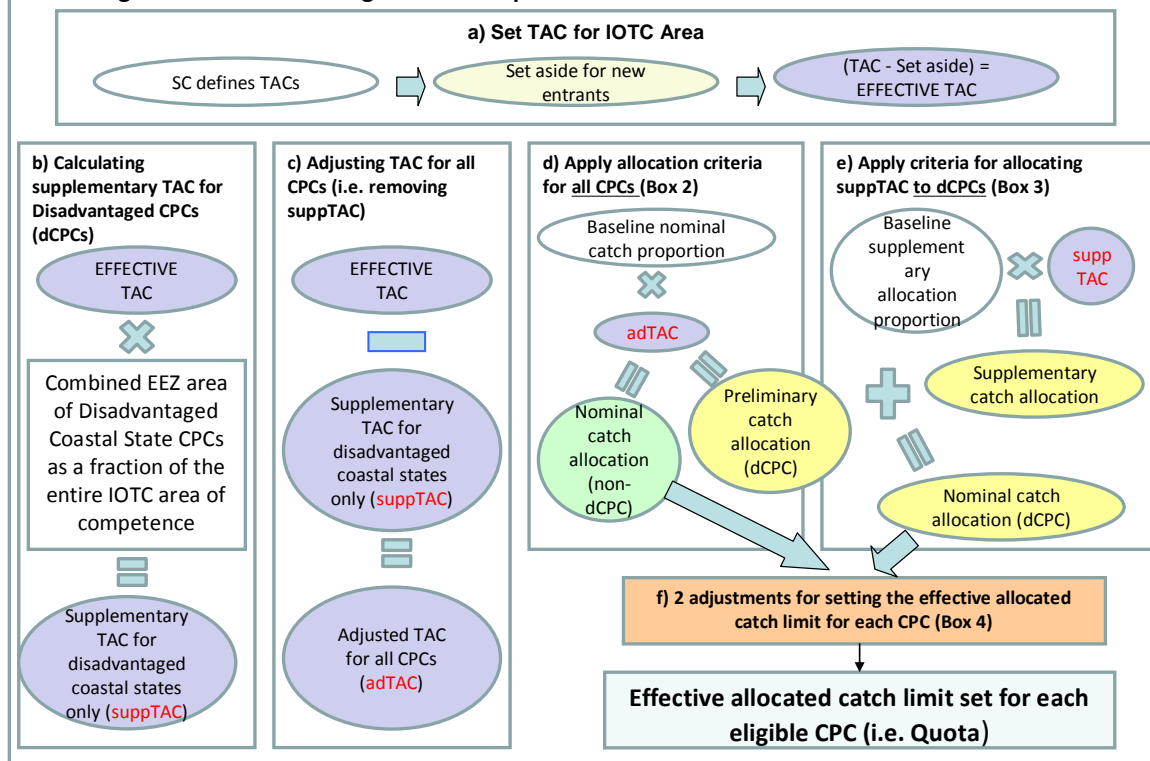
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4. Quota allocation through the Adjusted TAC on the basis of historical catch by their flagged vessels that have fished on the high seas

A summary of the quota allocation system proposed is provided in Boxes 1-5. The table below indicates which boxes have been modified or remain unchanged from the original proposal

Box 1	Overview of the rights allocation mechanism	Modified
Box 2	Rights allocation in detail: allocation based on historical catch	Modified
Box 3	Rights allocation in detail: allocation based on socio-economic criteria	New box
Box 4	Setting the effective allocated catch limit (quota)	Unchanged
Box 5	Implementation of the quota allocation system for any one CPC	Unchanged

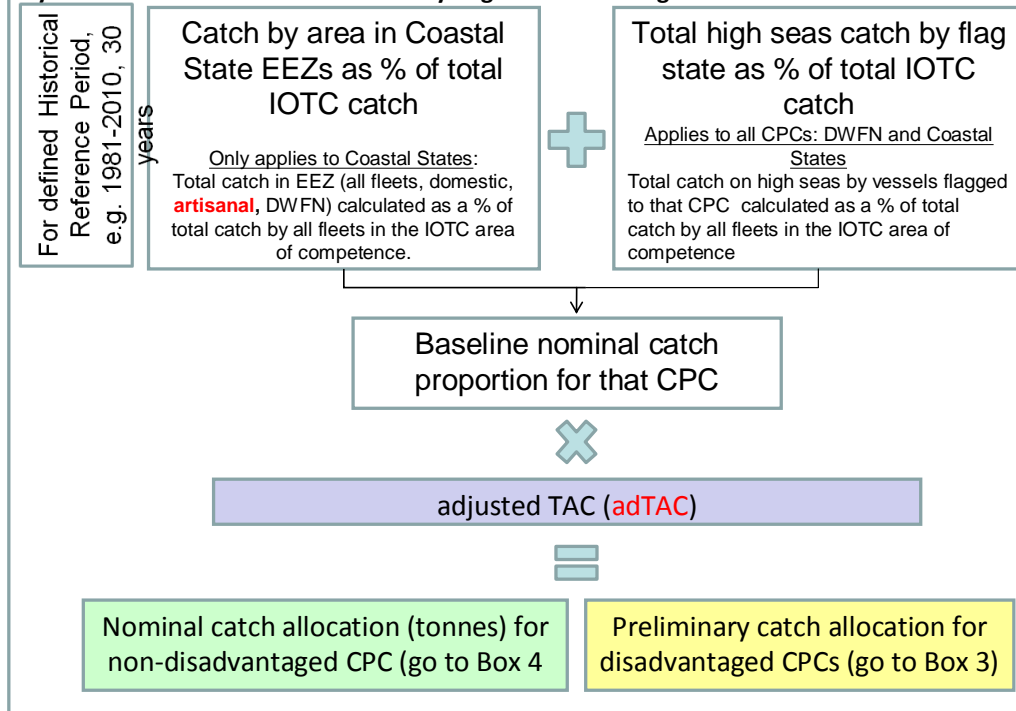
Seychelles quota allocation system proposal

Box 1: Rights Allocation: Setting each CPC's quota based on TAC and the allocation criteria



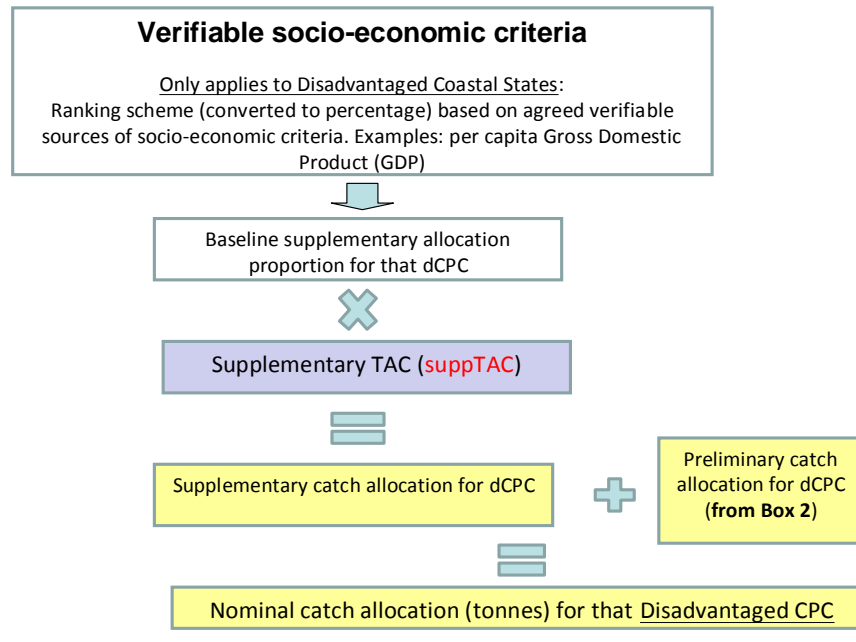
Rights allocation in more detail

Box 2: Baseline nominal catch percentage for ALL CPCs – based on a hybrid scheme of catch by area in coastal state EEZs & catch by flag state on the high seas

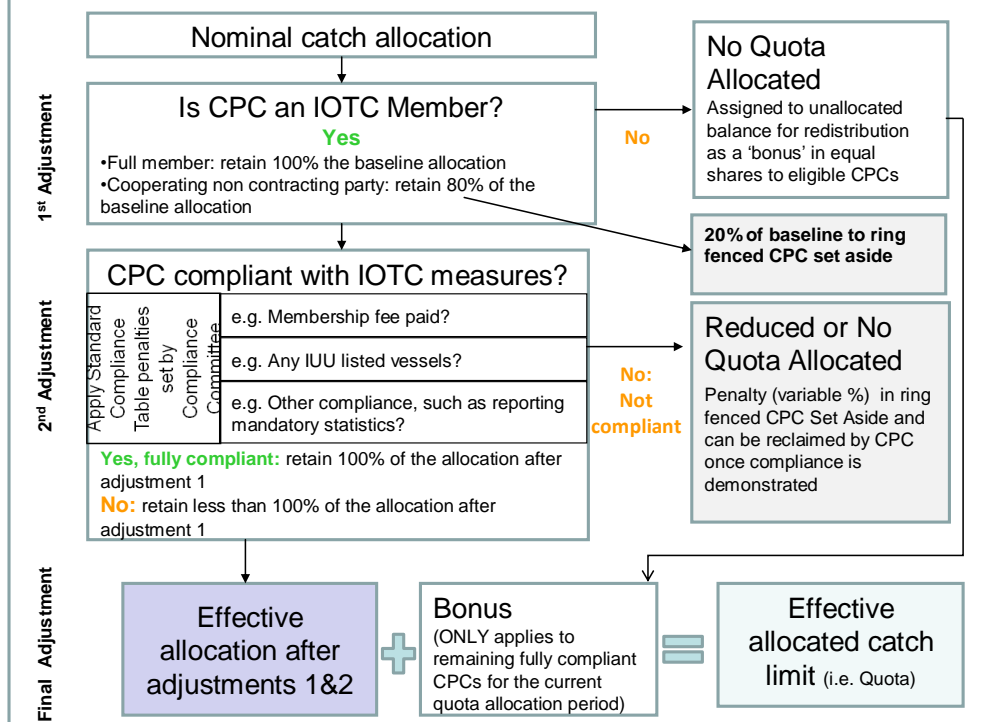


Rights allocation in more detail

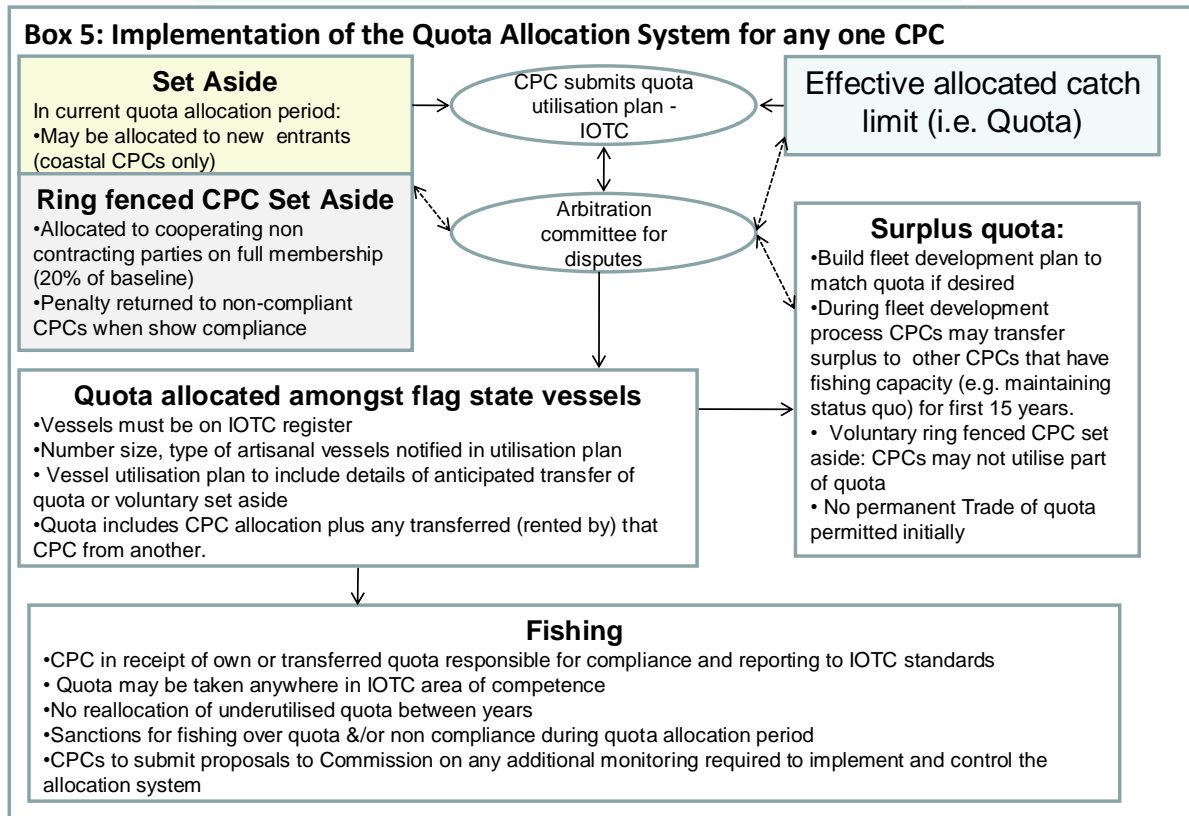
Box 3: Baseline SUPPLEMENTARY allocation proportion for any one Disadvantaged CPC – based on socio-economic criteria



Box 4: Setting the effective allocated catch limit for each CPC



Implementation and CPC responsibilities (Box 5)



Text and Boxes from Proposal B Submitted by the Republic of Seychelles to the 1st IOTC Technical Committee on Allocation Criteria (Nairobi on 16-18th February 2011) Highlighting Areas of Revision in the New Proposal

Text **highlighted** indicates revisions that have been made to the original explanatory note

A summary description of the system:

For any species for which the IOTC will apply a quota allocation system (e.g. yellowfin tuna, bigeye tuna) the system involves:

- **An assessment/management procedure to set the total allowable catch (TAC)** in the whole of the IOTC area of competence or sub areas as relevant for each species. Any set aside allocation for new coastal state members is subtracted from the TAC to give the Effective TAC before allocation amongst CPCs.
- **Revision note:** The Effective TAC will be split to provide for a Supplementary TAC to Disadvantaged CPCs and an Adjusted TAC for all CPCs (Page 2 of this document).
- **Application of allocation Criteria**
 - **Original Text:** Based on catches recorded during a defined historical reference period, applying control rules that set a baseline nominal catch proportion for all eligible CPCs (i.e. all coastal states and all distant water fishing nations that have fished in IOTC waters). The baseline is set only once in 2012. **Revised Text:** Based on catches recorded during a defined historical reference period and socio-economic criteria, applying control rules that set a baseline nominal catch proportion for all eligible CPCs (i.e. all coastal states and all distant water fishing nations that have fished in IOTC waters) and baseline supplementary allocation proportion for Disadvantaged CPCs. The baselines are set only once in 2012.

- **Original Text:** Deriving the CPC nominal catch allocation for the current quota allocation period from the effective TAC and the baseline nominal catch proportion. **Revised Text:** Deriving the CPC nominal catch allocation for the current quota allocation period from the Adjusted TAC and Supplementary TAC and the baseline nominal catch proportion and baseline supplementary allocation proportion, respectively
- Applying adjustments to the nominal catch allocation related to membership status and compliance with IOTC conservation and management measures.
- The reallocation of any unallocated balance as a bonus to all fully compliant eligible CPCs. The final effective allocated catch , or quota, is thus derived for each CPC.
- An arbitration committee will be formed to deal with disputes
- **Implementation – i.e. use of quota, fishing (amongst others)**
 - The quota will apply for a fixed Quota Allocation Period before it is recalculated (e.g. 3 years) to ensure economic stability and to enable fleet development.
 - Quota may be taken anywhere in the area to which the TAC for the species in question relates i.e. in the IOTC area of competence, or a defined sub area,
 - Only vessels on the IOTC register can utilise a quota
 - CPCs will submit quota utilisation plans to IOTC – for use by their own flagged vessels and listed artisanal fleet. Any surplus may be transferred (rented) to CPCs that have fishing capacity, for example those that have historically fished, thus maintaining the status quo in the short term. In the medium to longer term, fleet development plans will take effect for the uptake of that surplus. The Arbitration Committee will deal with disputes.
 - No reallocation of underutilised quota between years; sanctions may be imposed for CPCs exceeding quota
 - CPCs responsible for monitoring and compliance of fishing by their own fleet on their own quota and any quota rented (transferred) to them.

A summary of responsibilities and a timeline to achieve implementation by 2012 is presented in Section 15 of the Proposal.

Annex 1 provides more detailed explanation for the application of control rules to set the *baseline nominal catch proportion* for each of yellowfin tuna, bigeye tuna and swordfish.

This system:

- Provides a fair rights based distribution of benefits between coastal states and distant water fishing nations
- Incorporates historical fishing, zonal attachment and socio-economic dependency, all of which are recognised as core criteria for the design of quota allocation systems
- Through a fully mechanistic system, avoids the uncertainty involved in negotiating quota for coastal states lacking or with limited historical catch
- In the short term aims to maintain the status quo, providing economic stability
- In the longer term allows fleet development up to the level of any quota allocated to a CPC.

- Allows for new coastal state entrants by allocating a set aside
- Encourages full membership of IOTC by applying a sliding scale of allocations for members and cooperating non contracting parties; An exception will be made for Taiwan.China pending discussions on its membership, but this will be the only exception.
- Encourages full compliance with IOTC conservation and management measures, including payment of fees by setting sanctions (quota reductions) for non compliance.

Thus the system proposed has the potential to address more than just a means of sharing out the catch. It also has the potential to encourage full compliance with all of IOTC's conservation and management measures, making it a strong tool for the Commission.

Annex 1: Calculation of the Baseline Nominal Catch Proportion for yellowfin tuna, bigeye tuna and swordfish for an historical reference period of 1981-2008

The Proposal indicates that the IOTC Secretariat is responsible for applying the control rules (i.e. methodology for estimation) for the agreed reference period to determine the baseline nominal catch proportion by CPC. The Science Committee will review and approve the estimates derived for submission to the Commission. This Annex is presented for guidance only and is based on the estimation procedure described below. Refinements to this procedure are also indicated below and may be recommended by the Technical Meeting on quota allocation. The final baseline nominal proportion allocated to each CPC may differ from the figures shown based on any such refinements to the estimation procedure and on the historical reference period adopted. It is noted that IOTC have developed a tool that enables the calculation of catches on the high seas and in CPC EEZs that uses the same approach as that outlined below.

The data sources used for all calculations of catch by area, flag, gear and species were the individual IOTC catch and effort databases for the different gear types. It is important to use an agreed data source that has been submitted by IOTC Members and CNCPs and is readily available to all parties to enable verification and transparency throughout the process. Longline data are available by year, flag and by 5° x 5° grid, purse seine and bait boat (pole and line) by a 1° x 1° grid. In order to divide the Indian Ocean catch by EEZ relating to the coastal states and those catches taken on the high seas, a series of 5° x 5° and 1° x 1° grids were overlaid with a chart of the EEZ or equivalent definitions for the entire region. Zone definitions were taken from the Global Maritime Boundaries Database (GMDB). The approximate proportion of each zone within each individual grid square was determined by visual estimation manually and the process repeated until the entire Indian Ocean region (FAO Areas 51 and 57) had been covered. It is recommended that for transparency that the process of allocating the proportion of grid squares to coastal state zones is repeated using a detailed GIS to determine the exact proportion of each zone inside a grid square; the IOTC tool does this. Further refinements, such as allocating all catches in a grid square to the high seas where fishing is excluded from a coastal state EEZ except under license can also be made. At present IOTC does not have all such information and if this refinement is agreed during the Technical Meeting, CPCs should make the details available to the Secretariat.

Annual catch totals by species are then calculated for each gear type, coastal state zone and flag state in each grid square by multiplying the catch within a grid square by the proportion. For the purpose of this estimation the High Seas are considered the equivalent of a coastal state zone. The total catches for each coastal state zone for each species can then be calculated by adding the catch totals for all gears and all years within the defined period for each coastal state zone. Catches are assumed to be distributed uniformly throughout a grid square. These figures form the basis of Table 1. Artisanal catches (assumed to only occur in a coastal state's own zone) are estimated by the secretariat and have been included in the IOTC catch and effort database. The total catch in a particular zone and as a proportion of the total Indian Ocean catch overall can now be calculated (Columns A and B in Table 2) along with the total high seas catch and as proportion of the total Indian Ocean catch for all fishing nations (Columns C and D in Table 2). The baseline catch proportion is calculated as the proportions taken inside the zone of a state and taken by the state on the high seas added together (Column E in Table 2).

EU catch data are disaggregated in the IOTC catch databases as they have historically been reported as such (hence France, Spain, Portugal appear as separate lines in the tables). In Tables 2 and 5, catch data will be aggregated in the model so that all French, Portuguese and Spanish catches are included as "European Union". French catches that have been recorded separately for the French territories of Mayotte and Reunion will be recorded as French catches only for the calculation of coastal state allocation in these tables.

A further refinement could be to use logbook data submitted to CPCs by vessels licensed to fish in their zones. However such information is not currently publically available and will be more difficult to verify. It is therefore recommended that the approach described above, with refinements to improve the estimation, is employed using the publically available and agreed IOTC database. By taking an historical reference period the catch by area over time is averaged; the method applied similarly proportionately apportions catches by area. Furthermore, currently unreported elements such as artisanal catches are estimated within the IOTC database. Consequently even with accurate logbook

data from the commercial and licensed part of the fishery there will still be an element of estimation in the procedure. Thus the above method provides a good approximation on which to base quota allocations and takes into account both commercial and artisanal catches. It provides a good basis for quota allocation.

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APPENDIX VI

EUROPEAN UNION – PROPOSAL C

DRAFT: ON ESTABLISHING A QUOTA ALLOCATION SYSTEM FOR THE MAIN TARGETED SPECIES IN THE IOTC AREA OF COMPETENCE

Background

The IOTC Resolution 10/01 taken in its plenary session, states the adoption of a quota allocation system, or any other relevant measure, for the management of the main targeted species falling under the IOTC competence. A technical committee meeting shall be held in February 2011 to discuss allocation criteria and to recommend a quota allocation system. In order to keep coherence, the quota allocation criteria and allocation system will be addressed in parallel.

This proposal recognises the legitimate rights and aspirations of both coastal states, in particular small island developing coastal states and territories and small and vulnerable economies; and, distant water fishing nations that have historically fished and invested in an area.

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 and bigeye tuna stocks might have been over or fully exploited in recent years;

RECOGNISING that IOTC Resolution 10/01 requires the development of a quota allocation system for yellowfin and bigeye tuna stocks;

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 stocks;

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

Main principles

1. A Total Allowable Catch (TAC) will be decided – for one or several years – by IOTC, notably according to scientific data and the recommendations of the Scientific Committee. A TAC will be established for the main targeted species that IOTC Members judge necessary for conservation and sustainability purposes and according to the best available scientific advice.
2. An allocation quota system setting fishing possibilities per flag State will be adopted for the period defined for the TAC application.
3. All IOTC CPCs, other coastal States and any other State with proved fishing interests in the Indian Ocean in the last 10 years will qualify to receive quota allocations according to the criteria defined herewith.
4. The baseline for allocation will be fixed on the average of historical catches for all eligible participants of the last [10 years].
5. IOTC Members shall set aside a range of 3–5% of the TAC per species.
6. An additional pool of fishing opportunities will be created by the application of the correction factors described in paragraph 8.

7. The global set aside (sum of 5 and 6) will be redistributed to CPCs having a fleet development plan, developing coastal States and Territories and new entrants, according to the criteria defined in the paragraph 11.

Correction factors

8. Some correction factors, namely based on compliance, will be applied to the individual allocation baseline.
- a) Excluding factors:
 - i. Flag States and or fishing entities that are, at the moment of the implementation of an IOTC TAC and Quota system, neither Contracting parties nor Cooperating non-contracting parties² are ineligible (0%) for any individual quota.
 - ii. No IOTC fee payment for 3 or more years.
 - b) Limiting factors:
 - i. Cooperating non-contracting parties (80%).
 - c) Negative factors, reductions (percentage) applied to individual quota baselines:
 - i. Non compliance with IOTC requirements (in order of priority):
 - data/catch reporting (...%);
 - freezing capacity (...%);
 - IUU Vessels (...%)
 - VMS (...%);
 - observer programme (...%),
 - transshipments (...%).
 - Delay to pay IOTC fee (...%).
 - ii. The correction factors mentioned in a) and b) will be deducted from individual quotas and added to the global set aside.
 - d) Positive factors:
 - i. Compliance status as defined by the Compliance Committee and agreed by the IOTC (...%).
 - ii. Clear improvement regarding IUU listed vessels situation as defined by the Compliance Committee and agreed by the IOTC or actions taken to scrap or permanently reassigned IUU vessels for purposes other than for fishing activities (...%).
 - iii. Implementation of scientific programs or funds provided for scientific research in support of the IOTC scientific activities (...%).

The positive factors will only be used to correct negative factors, they can be applied directly to individual quotas. An individual quota calculated after the application of all correction factors cannot exceed the individual allocation baseline.

² Exception will be represented by Chinese Taipei, which is also invited to voluntarily contribute to the IOTC budget in a form which would be legally acceptable within the IOTC context.

9. Once all individual quota allocation is decided, the negative and positive correction factors will be applied 2 years following the initial allocation. After this period the corrective factors will be recalculated [every two years/yearly], notably on the basis of the Compliance performances of each IOTC's CPC against the criteria established in point 8 (Ex.: if the quota system is agreed at the 2012 IOTC Plenary, the "compliance" correction factors will be applied firstly at the 2014 IOTC Plenary).

New corrective factors could be added to the system according to the IOTC decision.

Set aside redistribution

10. The set aside generated by factors described in a) and b) of the paragraph 8, not compensated by factors described in c) of the same paragraph would be added to the possible set aside as described in paragraph 5.
11. The global set aside will be attributed to i) CPCs states having implemented concretely their fleet development plans in accordance to the programme of implementation presented to IOTC, and reviewed by the Compliance Committee, ii) to developing coastal States or Territories according to a set of criteria to be agreed by IOTC, including GNI, the catch taken in the EEZ, the contribution of the fishing sector to the overall economy of the given State, the length of a coast line and iii) to new entrants following IOTC decision. If any set aside quota remains, it will be redistributed equally among all full compliant Members. The status of compliance of each individual Member will be established by the Compliance Committee and proposed to the IOTC for approval.

Voluntary transfers of quota

12. A Contracting Party or Cooperating non contracting Party (CPC) may partly or fully transfer a quota to another Contracting Party or Cooperating non contracting Party. A CPC intending to make a transfer shall make a prior notification to the IOTC Executive Secretary. The Executive Secretary shall forward this notification to all CPCs for information.

Reporting/Payback/Monitoring Implementation

13. Once all individual quotas are agreed and allocated, IOTC Members and Cooperating Non Members are to provide to the IOTC Secretariat estimated catches of targeted species which are subject to the TAC and Quota system on a quarterly basis, within thirty days of the end of last month of the relevant quarter. The IOTC secretariat will then immediately circulate such estimated quarterly based catches, aggregated by flag State, to all CPCs.
14. A payback penalisation for overfishing will be decided for implementation the first year this allocation system enters into force.
15. The Compliance Committee meeting held prior to the Commission Plenary Session in 2012 will discuss any additional requirements that are necessary to administer and monitor this quota allocation system over and above the current mandatory requirements for reporting against IOTC conservation and management measures. CPCs are encouraged to submit proposals one month prior to the meeting.

ALLOCATION CRITERIA

Total Allowable Catches (TAC)	To be decided by IOTC Plenary namely on the basis of science	
Set aside	Percentage of the TAC to be decided by IOTC Plenary	
Total baseline allocation	TAC – Set aside	
Individual quota	% of the total baseline allocation fixed individually on the basis of historical catches of the last 10 to 15 years (total Flag State catches/Total IOTC catches)	
Excluding factors:		
1. No IOTC membership	100 % reduction	
2. No IOTC payment for 3 or more years	100 % reduction	
Limiting factor:		
3. Cooperating non-contracting parties	Reduction of 20 % of the individual quota	
Correction factors to be applied individually. Negative factors:		
4. Freezing capacity/fishing effort limitation	Reduction (%) to be defined	
5. VMS	Reduction (%) to be defined	
6. Observers	Reduction (%) to be defined	
7. Transhipments	Reduction (%) to be defined	
8. IUU vessels	Reduction (%) to be defined	
9. Delay on the IOTC fee payment	Reduction (%) to be defined	
Positive factors (only applicable to compensate negative criteria):		
10. Compliance status	Criteria and increase (%) to be defined	
11. Improvement regarding IUU	Criteria and increase (%) to be defined	
12. Scientific research	Criteria and increase (%) to be defined	
Total Correction	Sum of the correction factors per member	
Corrected allocation	Individual quota x individual total correction factor	
Extra contribution to the set aside	Base line allocation - sum of individual corrected allocation	
Total set aside	Initial set aside + extra contribution to the set aside	
Final allocated individual quota	For CPCs with concretely fleet dev. plans + developing coastal States + new entrants: Corrected allocation + total set aside individually allocated + A minimal quota will be defined	For other States: Corrected allocation

APPENDIX VII

I. R. IRAN – PROPOSAL D

ON ESTABLISHING ALLOCATION CRITERIA FOR THE MAIN TARGETED SPECIES IN THE IOTC AREA OF COMPETENCE

Background

This proposal responds to IOTC Resolution 10/01 which adapted in March 2010 in Korea and agreed that a technical committee shall be held and discuss on allocation criteria or any other relevant measures, for the management of the main targeted species, including, Yellowfin, Bigeye tunas and Swordfish, under the IOTC competence areas.

On this way the 1st technical committee on allocation criteria held in Nairobi during 16-18 Feb, 2011. During the meeting five countries including EU, Indonesia, I. R. Iran, R. Korea and Seychelles presented their proposal and IOTC Members discussed about details of under developing system. 1st meeting noted that the process of establishing allocation criteria and agreement on basic principals are complex and the committee is unable to complete the task in the short time and agreed that more work is required and developing an allocation system needs another technical meeting.

Although based on 15th Session of the IOTC Scientific Committee report, the amount of three targeted species catch are less than calculated MSY but for more guarantee and protection of the species stocks against over fishing, the Commission members need to adopt conservation measures that would ensure the sustainability of the resources, while discussion on an allocation criteria continue.

The second technical committee meeting is going to be held during 18-20 February 2013, by hosting of Oman country and the IOTC members are going to discuss about allocation criteria, which they will adopt as a basic principles on the quota allocation system by the IOTC member countries.

Although a brief review on background of establishing allocation criteria for the main targeted species in shows some complication, but the progress that was made during only one meeting was great and this shows all the members have enough will to walk on this way. Surely the main object of the 2nd working group meeting will paying more carefully and attentively to the members concerns especially developing countries, which their fishermen and local people livelihood and jobs are influenced directly by the fishing activities in the Indian Ocean. On the other hand the working group shall be developed such a criteria which they cover members benefits and sustainability of tuna stocks and their fishery.

Achieving food security for world population is the main mission of FAO's efforts - to make sure people have regular access to enough high-quality food to lead active, healthy lives. Also FAO's mandate is to raise levels of nutrition, improve agricultural productivity, better the lives of rural populations and contribute to the growth of the world economy. For these the 2nd technical committee on allocation criteria necessarily needs to consider main objectives of FAO, relevant regional fishery organizations missions and concerns of developing countries, which they are food security, responsible fisheries and livelihood of local people.

The Indian Ocean Tuna Commission IOTC

Noting that the main objective of the Commission is 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.

Recognizing that based on past experiences in Tuna fisheries, the potential of production from the resources was impacted by excessive fishing effort and over fishing;

Noting the importance of applying the precautionary approach for the management of the tropical tuna and Swordfish stocks, in particular Yellowfin and Bigeye tuna in the Indian Ocean;

Taking into account the available scientific information and advice, in particular the IOTC scientific committee conclusion whereby the yellowfin, bigeye tuna and Swordfish stock might have been over exploited in recent years;

Recognizing that the 15th IOTC scientific committee meeting represented different species MSY levels, which have been estimated at 344 (290-453) thousands tones for yellowfin, at 114 (95-183) thousands tones for bigeye tuna and around 29 (29.9- 34.2) thousands tones for Swordfish. On this way 13th and 14th IOTC scientific committee had recommended that the catch of mentioned species should not exceed from MSY level,

Acknowledging that the awareness about MSY and TAC, without an appropriate allocation criteria and consequently quota allocation system would result in an inequitable distribution of the catches and fishing opportunities among the CPCs and cooperating non member CPCs;

In accordance with the provision of the 15th and 16th session of IOTC commission, 13th, 14th and 15th session of IOTC scientific committee and 1st session of technical committee on allocation and criteria reports, the recommended principals and criteria for the 2nd technical Committee on allocation criteria meeting by I. R. Iran are as a below:

1. Principles

1.1. Considering international law, and FAO missions and mandates, providing a desirable condition for food and food security in universal level is the main responsibility and duty of governments, regional and international organizations. The technical meeting on allocation criteria should to follow this mission as an approach in it's under developing system.

1.2. Realizing most of the current fishing activities in IOTC competence area have done by local people and majority of them rarely located in economical level. Also noting to role of tuna fisheries in occupation, livelihood and food security of local people, especially in developing countries and considering of social economic aspects of fishing activities. Surely without adoption this approach, not only developing of criteria but also implementation of under construction system will face with difficulties and a huge number of fishermen encounter with many problems such as joblessness and poverty.

1.3. Considering sustainable fisheries of tuna fish stocks (base on MSY level and TAC), developing an appropriate criteria, suitable allocation mechanism and implementation a responsible fisheries in IOTC competence areas are one of the main principles of the under developing system.

2–Allocation criteria

Base on I. R. of Iran proposal, there are seven main criteria which are noticeable on developing an equitable allocation criteria in the IOTC competence area. These criteria with conjunction MSY will lead the IOTC to make a decision about quotas for Swordfish, yellow fin and big eye tuna. On this way scientific research results and the regional expertise experiences, lead the Scientific committee to better understanding about total allowable catch and consequently sustainable fishing level in the IOTC competence area every year.

In order to develop equitable allocation criteria in IOTC competence areas, the 2nd technical committee on allocation criteria for the main targeted species shall consider all aspects of tuna fishing activities, social economic condition of countries and related laws and legislations. On this way, paying more attention to the FAO mission and mandate and IOTC objectives on establishing a mechanism for allocation criteria and management of responsible fisheries is a necessity..

Without any doubt, access to responsible fishery and conservation of tuna fish stocks need CPCs and cooperating none member countries assistance and contribution. For these the allocation criteria should be consider to all countries benefit specially in developing countries which their local people and fishermen livelihood and income totally corresponded with fishery. On the other hand the technical committee should be developing a kind of system which it will be able to conserve both tuna fish stocks and stockholders' benefits. Although there are many factors which have capability to use as criteria, but I.R. of Iran propose to the 2nd technical committee, the allocation criteria as below:

- 1- Food security and right for food,
- 2- Role of Tuna fisheries on social economic condition of fishermen,
- 3- History of tuna fishery
- 4- The right of Indian Ocean coastal states,
- 5- Responsible fishery,
- 6- Fishing fleet capacity
- 7- Compliance to IOTC regulations,

2.1. Food security and right for food

Food security and preparation enough food for human in an appropriate quality and quantity level is the main objective of human right and philosophy of FAO establishment. Basically the main intent of establishment of an international or regional organization like IOTC is having a kind of actions which lead our world and consequently all the countries to have a safe and healthy life. In addition the right for food is a main base for human rights which emphasizes on economic, social and cultural right as a pre requirement for human right.

Surely majority of current fishing activities in IOTC competence area are done by local fishermen who are working only for food and primary requirements of life. Available information shows only a few countries are having fishery in large scale level by powerful companies which are active not only in Indian Ocean but also in the other oceans. In fact the benefit of this kind of companies is huge and is not analogical with fishermen income in developing and less developing countries, where the fishermen fishing only for food.

In fact technical committee should to pay more attention to the fishermen's life in developing and less developed countries and should try to make a system which will secure their life level in quality. Through this criterion adoption a rate and base coefficient is recommended minimum in three levels.

2.2. Role of Tuna fisheries on social economic condition of fishermen

Without any doubt in order to develop a fair allocation criteria system, social-economic aspects of CPCs is the most important criterion which directly influenced local people's life. Base on available information, the livelihood of majority of coastal habitants in the IOTC competence area are closely corresponding with fishing activities. While during past years most of the governments, private sectors, companies, fishermen cooperatives and etc have invested a huge amount of money in different divisions, like construction of vessels, cold storage, processing centers and the other fishery sectors. Because of these investments and besides improving fishing activities, many prior and astern industries and jobs have been created for local people. The important point is that income of most jobs related with tuna fishing is located in economical border, so constraining a little pressure or changes in their activities, will be affected negatively their jobs, incomes, livelihood and life, the points that FAO completely have been avoided from it during its history.

On this way a close cooperation between countries and IOTC to analyze condition of each country is very necessary. So for implementation an allocation criteria system, the working group should to continue its survey on role of tuna fisheries on social economic condition of fishermen in each country. On the other hand, the number of fishermen, vessels, fishing harbors or landing places, processing centers, cold storage, refrigerator facilities, ship building factories, builders and traders of fishing equipments and devices, amount of investments by government or private sectors, local people and fishermen councils, existence fishery cooperatives, companies and etc are the most important factors which the technical committee should to consider them in this creation.

2.3. History of tuna fishery

The CPCs and cooperating non member countries history and background in tuna fishing activities through the IOTC competence area, is one of the main important creation, which needs to consider by technical committee during developing an allocation criteria system. Base on available information most of the IOTC members have historical right to fish in the IOTC competence area. In fact, these countries mostly belong to the Indian Ocean basin and historically are familiar with fishery in the area, depending capacities, concerns and problems. Also the countries have had a main role on establishment of Indian Ocean Tuna Commission and it's continuously progress in the region. They have had close cooperation with the commission and have gotten a big role in implementation of responsible fishery base on FAO and IOTC regulations in their fishing activities. They also invested a huge amount of money in fisheries field and dependence industries during past decades of their history and nowadays they have many dependant industries and jobs on tuna fishery in the IOTC competence area.

Based on I.R. of Iran, average catch of countries during past ten years (from 2010) is an appropriate period of time for setting their history as a base for this creation.

2.4. The right of Indian Ocean coastal states

Geographical location of countries the IOTC competence area is the other factor which gives to the Indian Ocean coastal states more priority and right. In the other hand recognizing the legitimate sovereign rights of Indian Ocean coastal states, their interest to distance water fishing and historically investment in the Indian Ocean fishery give them rights to have more priority in comparison with the countries from other regions.

In this creation I.R. of Iran recommend to allocation historical catches of coastal states to them, which are taken in their EEZ, and the rest of MSY allocate to all the IOTC members. In the other hand minimum 50% of MSY should allocate for coastal states and the rest of it allocate to all CPCs and cooperating non member countries, which they have right to fish in the open sea. Also under developing system shall to adopt such a system which no coastal states condition will be worse off than current situation and it will prepare better Social economic condition for coastal states fishermen who needs more supports and assist.

2.5. Responsible fishery

This criterion leads the CPCs and cooperating none member countries to have sustainable tuna fishery. The manual of responsible fishery has been printed by FAO and is available for all the countries. In addition many countries have implemented different aspects of FAO code of conduct, but in some cases they need more improvement. Control of fishing gears, their standards, establishing data collection system and producing useful information like amount of catch and their composition, fishing efforts, CPUE, port state measures, market state measures, combating with illegal, unreported and unregulated catch (IUU), implementation of VMS system and observer program, reduction of by-catch and protect endangered species like Sharks, marine mammals, turtles and other measures which lead the region to responsible and sustainable fisheries, are some of the responsible fishery elements.

On this way all the IOTC CPCs and cooperating none member countries which are active in the region shall develop a plan and implement it in their tuna fishing activities. Also the countries shall develop a documentation system with enough evidences that shows implementation and effectiveness of the system. On this way an appropriate manual for implementation of documentation, monitoring and control shall be develop and introduced by IOTC scientific committee which some of them are available. In addition all the countries shall implement this monitoring and control system with suitable documentation on all their eligible flag state vessels.

2.6. Fishing fleet capacity

CPCs fishing fleets have developed according to their fishery management system and are seen in different level from small scale fisheries to industrial vessels. A vessel is a unit for catch of fish and creative of job, with distinguished ability and capacity. Stability in number of vessels and promote their effectiveness will cause of occupation stability and guarantee food security and requirements of fishermen. So number of vessels, their capacity for fishing and number of fishermen is an important criterion which insures occupation and livelihood of fishermen especially in developing and less developed countries.

Considering to creating equitable opportunities to occupation of local people and fishermen and consequently sustainability in fisheries, conservation of fish stocks and food security; I.R.of Iran recommend, 2nd technical committee pay more attention to number of vessels, their technical specification and capacity for fishing (especially their engine power), number of created jobs, as a criterion.

2.7. Compliance to IOTC regulations

Base on responsible fisheries principals and regulations of the IOTC, the CPCs and cooperating non member countries should produce appropriate information and present them to IOTC. For better management of fishery, IOTC needs more cooperation, in access to detail of information, and assistance of countries in some studies or researches. In these cases the cooperation of CPCs and cooperating non member countries is necessary. In the other hand base on working groups, scientific committee, commission decisions and related resolutions, all the countries should to prepare related information and reports. Administration and management of Indian Ocean Tuna Commission needs financial supports. Base on current financial procedure, annually membership payment is one of the important financial resources for covering IOTC costs. So paying the membership is one of the important factors in evaluation of compliance with IOTC. The main purpose of this criterion is strengthening of IOTC commission authority in the area, implementation

of unify and effective tuna fishing management system and gathering the CPCs and cooperating non member countries under IOTC umbrella.

3–Conclusion

In conclusion proposed criteria by I. R. of Iran have tried to cover all different aspects of equitable allocation criteria system in the IOTC competence area. Base on these criteria CPCs are going to make a decision about allocation criteria for three targeted species including, Yellow fin, Bigeye and Swordfish, under the IOTC competence area. According to was made decision during the 13th and 14th IOTC scientific committee meeting in 2010, the committee recommended the Yellowfin and Bigeye tuna catches should not exceed from MSY levels which have been estimated at 344 (290-453) thousands tones for Yellowfin, at 114 (95-183) thousands tones for Bigeye tuna and around 29 (29.9-34.2) thousands tones for Swordfish in 2011.

I. R. of Iran recommend to 2nd technical committee to follow establishment of an allocation criteria system in two steps. First the committee opens discussion on criteria and acceptance of them, then in the second step distinguishing and defining different factors in each creation and giving appropriate rate and coefficient for each factors.. On this way the recommended criteria by I. R. of Iran including:

1. Food security and right for food
2. Role of tuna fisheries on social economic condition of fishermen
3. History of tuna fishery
4. The right of Indian Ocean coastal states
5. Responsible fishery
6. Fishing fleet capacity
7. Compliance to IOTC regulations

APPENDIX VIII

MOZAMBIQUE – PROPOSAL F

ON ESTABLISHING A QUOTA ALLOCATION SYSTEM FOR THE MAIN TARGETED SPECIES IN THE IOTC AREA OF COMPETENCE

Background:

Mozambique notes that in accordance with Resolution 10/01 the Commission was to adopt an allocation quota system or any other relevant measure for the yellowfin and bigeye tunas at its plenary session in 2012. Various factors prevented this action. Consequently, Mozambique begs the indulgence of the Commission for this late submission, and notes that it only became a full member in 2012 and was in the midst of discussions with the European Union regarding an erroneous boundary line that was being used to define Mozambique waters which has unfortunately resulted in under-reporting of catches taken in Mozambique's waters for more than five years. This error and the updated catches are currently being addressed by the two parties so Mozambique can be on a level playing field for such allocation exercises in the future.

Further, Mozambique proposes that as the artisanal tuna catch records of coastal and small island states becomes better known that an 'allowance' be calculated from the individual allocations to accommodate this fishery. In the interim period, the Commission will take into account the initial estimates of artisanal catches in determining the 'set aside' allocation.

Considering the above, and the fact that Mozambique's membership status needs to be updated accordingly to a 'full contracting party', Mozambique wishes to state that it supports the Seychelles 'hybrid' proposal and further wishes to build on this proposal for coastal States while also recognizing historical fishing presence of distant water developing states and their benefits and impacts on coastal state economies. The Mozambique proposal is based on the following principles:

1. Support for the hybrid proposal of Seychelles whereby confirmed and updated catch histories, including artisanal fisheries, inside the EEZs of coastal and small island states remain with those coastal and small island states and the confirmed historical catches on the high seas remain with the flag state.
2. As catch histories are updated and amended in these areas in the future the base-line nominal catch proportions are also updated accordingly for the parties.
3. 'Rights' quotas shall be allocated by species and area.
4. A 'Set Aside' allocation from the total IOTC TAC by species, as agreed by the Commission, shall be established for new entrants, updating of historical catches, and to accommodate coastal State fleet development plans. The 'Set Aside' quota shall be pro-rated amongst all CPCs and released on an annual basis in the second half of the calendar year. Annual unused quotas shall not be carried over, but shall be forfeit to stock enhancement.
5. Developing coastal States and small island States with economies vulnerable to fishing pressures shall have priority access to tuna and tuna-like stocks as they build local fishing capacity.
6. A Membership and Compliance Adjustment Factor shall be set by the Commission and applied annually to fishing quotas with any surplus allocations to be placed in the 'Set Aside' allocation.
7. Current license levels for tuna be accommodated in the allocation criteria.
8. The quota allocation mechanism be implemented commencing in calendar year 2014.

With these principles, Mozambique proposes the following amendments to the Seychelles Proposal.

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 and bigeye tuna stocks might have been over or fully exploited in recent years;

RECOGNISING that during the 13th IOTC scientific meeting held in Seychelles from 6 to 10

December 2010, the Scientific Committee recommended that yellowfin and bigeye tuna catches should not exceed the MSY levels which have been estimated at 300,000 tonnes for yellowfin and at 102,000 tonnes for bigeye tuna;

RECOGNISING that IOTC Resolution 10/01 requires the development of a quota allocation system for yellowfin and bigeye tuna stocks and for swordfish stocks;

ACKNOWLEDGING that the implementation of a TAC without a quota allocation system would result in an inequitable distribution of the catches and fishing opportunities among the 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;

TAKING INTO ACCOUNT the sovereign rights of coastal states for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, within their respective exclusive zones in accordance with Article 56 (1) of the United Nations Convention on the Law of the Sea, Montego Bay of 10 December 1982;

NOTING the importance of applying the precautionary approach for the management of the tropical tuna and swordfish stocks, in particular yellowfin and bigeye tuna in the Indian Ocean;

NOTING the 13th Scientific Committee recommendation to develop a Compliance Monitoring Scheme;

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

PART 1 GENERAL PROVISIONS

1. Use of terms

1.1. For the purposes of this proposal:

- a) The term ‘CPC’ will be used as shorthand to include all IOTC members and Cooperating Non-Contracting parties to IOTC.
- b) ‘Fish’ means all or any identified species of highly migratory fish stocks covered by the IOTC convention.
- c) The ‘Quota Allocation System’ is the totality of the mechanism described in this proposal for allocating resource rights, implementation and management (monitoring, compliance, etc.) of those rights.
- d) The ‘Total Allowable Catch’ (TAC) is the upper limit for the sum of all CPC catches of a fish species in a particular year within the IOTC area of competence.
- e) The ‘Effective TAC’ is the total allowable catch minus any ‘Set Aside’ amount agreed by the Commission at the start of the quota allocation period (e.g. to allow for new entrants, artisanal fisheries, and tuna fleet development by developing coastal State and small island developing States to maximize the socio-economic benefits of the resources passing through their EEZs).
- f) The ‘Baseline Nominal Catch Proportion’ is the long-term base allocation proportion (%) of the TAC by species to each eligible CPC defined at the start of the programme in 2013 before any deductions are applied or as adjusted as baseline catch data are amended as agreed by the Commission (see Section 6).
- g) The ‘Adjusted Nominal Catch Proportion’ is the nominal allocation proportion (%) of the TAC by species to a CPC after adjustments to the baseline to accommodate factors such as new entrants to the fishery, artisanal fisheries, updated historical catch information, or permanent trade of quota, if permitted (Section 7).
- h) The ‘Nominal Catch Allocation’ is the nominal allocation of the TAC by species at the start of any specific quota allocation period before any adjustments for membership or compliance.
- i) The ‘Effective Allocated Catch Limit’ is the allocation of the TAC by species to a CPC for a specific quota allocation period after deductions and/or additions (see Section 8).
- j) The ‘Historical Reference Period’ defines the period for which historical data will be analysed in setting the baseline nominal catch proportion.

- k) The ‘Quota Allocation Period’ is the short term allocation period, that may be varied, during which the Effective Allocated Catch Limit applies.
- l) The term ‘Quota’ will be used as shorthand to describe the effective allocated catch limit allocated to a particular CPC.
- m) ‘Transfer’ refers to a temporary exchange of an allocation or part allocation, including renting such allocation to a third party.
- n) ‘Trade’ means the permanent purchase or exchange of a quota allocation.
- o) ‘Artisanal vessels’ refers to any vessel within a coastal CPC that fishes for tuna or tuna like species and that is less than 24 m in length and therefore not on the IOTC list of authorised vessels. CPC artisanal vessels are only authorised to fish inside the EEZ of the CPC. ‘Artisanal catch’ refers to the catch of tuna and / or tuna like species taken by artisanal vessels.

2. Objective

2.1. The objective of this proposal is to:

- define the rights allocation mechanism (allocation criteria) amongst members and cooperating non contracting parties of IOTC to a share of the catch of any fish for which IOTC sets a total allowable catch limit; and,
- define the mechanism for implementing the quota allocation system, identifying the duties of the responsible party amongst the different bodies and CPCs of IOTC.

3. Application and Eligibility for receiving quota

- 3.1. The defined historical reference period for determining eligibility to the quota allocation system and for setting the baseline nominal catch proportion will be from 1981 to December 2011, the latter date being the most recent information available to IOTC prior to adoption of the quota allocation system as required in Resolution 10/01.
- 3.2. The rights allocation mechanism defined in this proposal relates to a single species allocation. The same mechanism will be applied to each IOTC fish species for which a TAC has been agreed by the Commission.
- 3.3. A proportion of the total allowable catch will be set aside for new coastal state entrants, historical catch updates including artisanal fish catches, and coastal and small island States fleet development enhancements. The level of the catch to be ‘Set Aside’ for new entrants will be agreed by the Commission at start of the quota allocation system in 2014 and will be reviewed and adjusted as appropriate at the end of each quota allocation period. The balance of the TAC remaining will be the Effective TAC to be allocated to all eligible CPCs.
- 3.4. New entrant Distant Water Fishing Nations will not be excluded from the fishery and can enter the fishery if they meet the membership criteria and have rented or purchased quota made available by another CPC for transfer or trade. They will not be eligible to receive any set aside.
- 3.5. A **baseline nominal catch proportion** (%) for each fish species will be allocated to all coastal states within the IOTC area of competence, irrespective of membership status, and to all existing distant water fishing nations with a catch history during the defined reference period within the IOTC Area of Competence that are currently members or Cooperating non contracting parties of IOTC. (See Section 5 for the control rules for defining the baseline nominal catch proportion).
- 3.6. When setting the **effective allocated catch limit** only full member CPCs can receive 100% quota allocation before other adjustments. Cooperating non contracting parties will be eligible to receive only 80% of the nominal catch before other adjustments. Non members will not be eligible to receive an effective allocated catch limit.
- 3.7. The TAC, effective TAC and effective allocated catch limits will be set for a Quota allocation Period of three years in the first instance to allow fleets to plan accordingly enabling greater economic stability. The effective allocated catch limit will only be varied during that three year period if the Science Committee indicates that the status of the stock has significantly changed and the TAC must be adjusted early. The Quota Allocation Period will be reviewed by the Commission after three years with advice from the Science Committee and subsequent periods set may be varied as appropriate.

PART 2

RIGHTS ALLOCATION

4. *Setting the Total Allowable Catch: Defining a Management Procedure*

- 4.1. In 2011 the *Assessment/Management Procedure* for setting the TAC will be defined by the Science Committee and its associated Working Groups specifically the Working Group on Tropical Tunas and the Working Group on Billfish, based on best available science and stock status. It will take into account any uncertainty in the stock assessments and set the level of TAC accordingly. This procedure will define the mechanism for setting the Total Allowable Catch. It will also define whether the TAC for a species relates to the whole of the IOTC area of competence, or to sub areas for the species in question.
- 4.2. The assessment/management procedure will define the frequency with which stock assessments shall be undertaken with reference to stock status and both targeted and incidental catch levels, and any indicators that might trigger the need for a stock assessment earlier than planned if assessments are not to be undertaken annually.

5. *Setting the Effective Total Allowable Catch*

- 5.1. After applying the management procedure and having set the TAC for the fish species for the quota allocation period, the agreed set aside amount will be subtracted. The remaining Effective TAC (see 'J' in Table 5) will be allocated amongst all eligible CPCs according to the control rules defined in Sections 6 to 8.

6. *Setting the Baseline Nominal Catch Proportion*

- 6.1. A hybrid scheme based on catch per area in the EEZs of coastal states, appropriately updated for historical catches and an estimate of artisanal tuna fish catches in zone and on historical catch levels by all eligible flag state fishing fleets on the high seas will be applied to set the baseline nominal catch proportion in 2014.
- 6.2. The following control rules will be applied to each species for which an allocation has been set by the IOTC Commission:
1. The total catch taken by all CPC vessels in the EEZ of each coastal state (including that CPCs artisanal catches) will be calculated for the reference period (1981-2011). (A, see Annex 1, Table 1, transcribed to Table 2)
 2. The proportion of the total catch taken in each EEZ, will be calculated $[(\text{Total Catch in Country EEZ during reference period} / \text{total catch in IOTC area of competence during reference period}) * 100\%]$ (B, Annex 1, Table 1, Table 2)
 3. The total high seas catch by flag state during the reference period will be calculated C, Annex 1 Table 1, Table 2).
 4. The high seas catch by flag state (from C) will be calculated as a proportion of the sum of the total catch in the IOTC area of competence during the reference period (from A) $[(\text{Total Catch by flag state from the high seas during reference period} / \text{sum total catch in IOTC area of competence during reference period}) * 100\%]$ (D, Annex 1, Table 1, Table 2)
 5. The baseline nominal proportion of the catch (unadjusted) attributable to each country will be calculated based on the sum of the catch in the EEZ plus the catch by flag state on the high seas (i.e. B+D). This will be called the baseline nominal catch proportion (E, Annex 1, Table 2)
- 6.3. The baseline nominal catch proportion is set once only at the start of the quota allocation system (2014) and is based on historical catches by location up to that point in time. The first and all future quota allocations will start from this baseline.

7. *The Adjusted Nominal Catch Proportion*

7.1. All quota allocations are derived from application of control rules for the effective allocated catch limit to the baseline nominal proportion. However, there are three factors that may result in a need to adjust the baseline as an intermediate step prior to setting the quota:

- (i) Due to the fact that artisanal catches have been poorly reported to date, it may be necessary to make an adjustment after 5 years to incorporate more accurate artisanal catch data after implementing recommendations for artisanal fishery data reporting in Resolution 10/01. At present the IOTC catch and effort database estimates artisanal catches. It will only be necessary to update the baseline nominal proportion if those estimates differ significantly from the improved estimates of artisanal catch that become available.
- (ii) If historical catch levels in zone are proposed for updating from new historical catch data and accepted by the Commission, the baseline nominal catch proportion shall be updated accordingly for the coastal or small island developing state and for the CPC that under-reported, or misreported historical catches. (iii) To accommodate any permanent trade of quota between CPCs should this be permitted in future (see paragraph 10.2)

Any such adjustment will be called the ‘Adjusted Nominal Catch Proportion’. The original historical reference period will not be adjusted in such circumstances, however, the Adjusted Nominal Catch Proportion shall be utilised for further allocations from the time of acceptance by the Commission of such adjustment.

7.2. At the start of the quota allocation system in 2014 no adjustments will be made to the baseline nominal catch proportion and control rules are not defined here for setting the ‘Adjusted Nominal Catch Proportion’. This will only become necessary depending on future decisions of the Commission with respect to the exceptions noted in Paragraph 7.1 or as noted for permanent trade of quota (see paragraphs 10.2). The present control rules therefore only refer to the Baseline Nominal Catch Proportion.

8. *Setting the Nominal Allocated Catch and the Effective Allocated Catch Limit*

8.1. The baseline nominal catch proportion is set only once at the start of the quota allocation system. The effective allocated catch limit is calculated at the start of every quota allocation period. The first application will be in 2014 for the defined quota allocation period. The Effective Allocated Catch Limit is not necessarily in proportion to the baseline nominal catch proportion. It is the quota (catch-limit) allocated to a CPC for a specific period after application of a number of control rules.

8.2. To calculate the Nominal Allocated Catch for each CPC the following control rule is applied (see Annex 1 Table 5).

6. *Nominal Allocated Catch*: The product of the baseline nominal catch proportion (E) and the Effective TAC (J) is the nominal catch allocation, K, (see Table 5) [E x J, Tonnes]

8.3. To calculate the Effective Allocated Catch Limit for each CPC the following control rules see Annex 1 Tables 3-5) must be applied in the order shown.

7. *Membership status*: Adjustment 1. Membership status (G, Table 4) determines eligibility to receive a quota (see paragraph 3.6) and the relevant proportions are recorded in Column H (Table 4) [members entitled to 100% quota before other adjustments; cooperating non contracting parties, 80%; non members, 0%].

8. *Compliance*: Adjustment 2. The Standard Compliance Table (Annex 1 Table 3, see paragraphs 13.1 - 13.5) is applied to determine any reduction of allocation to any particular CPC due to non compliance. The balance of quota (F, Table 3) that remains to be allocated after penalty deductions for non compliance is expressed as a proportion and is summarised in Column F in Table 5 for all CPCs. The product of Adjustment 1 (H) and Adjustment 2 (F) is the combined adjustment, I (Column I in Table 4), and it is applied to the nominal catch allocation (K) to determine the effective allocated catch limit after penalty adjustments, L [K x I, tonnes, Table 5].

‘Penalty deductions’ are treated as follows:

- CPC: held in a CPC specific set aside (M, Table 5) for future years and can be reclaimed by the CPC once either membership status has been confirmed, or full compliance has been demonstrated to the satisfaction of the Compliance Committee. Until the CPC demonstrates ‘full compliance’, that portion of the allocation is placed in the unallocated balance for redistribution as a ‘bonus’ as noted below. If ‘full compliance’ cannot be demonstrated within three years, that portion of the CPC allocation is permanently removed from the CPC allocation and placed in the ‘Set Aside’ allocation for redistribution according to the applicable rules;
 - Non Member: the full nominal catch allocation of non members will be assigned to an unallocated balance (N, Table 5) for redistribution as a ‘bonus’ to eligible CPCs
9. *Reallocation of unallocated balance of quota: Final Adjustment.* The sum of any unallocated balance of quota will be reallocated in equal parts to all remaining fully compliant CPCs eligible to receive a quota for that period. This is the ‘bonus’ allocation, P (Table 5) [(Sum of unallocated balance, N / Number of fully compliant CPCs eligible for a quota), tonnes]
10. *Final Effective Allocated Catch Limit, i.e. CPC Quota:* The final effective allocated catch limit, or CPC quota for the current quota allocation period is the sum of the effective allocated catch limit (L) and any bonus applied (P) (Q, tonnes, Table 5).

PART 3 IMPLEMENTATION

9. Annual Establishment of CPC Final Effective Allocated Catch Limits

- 9.1 The Secretariat shall develop the preliminary annual final effective allocated catch limits for endorsement by the Scientific Committee to the Commission for approval at the annual session.
- 9.2 The Commission adopt an inter-sessional mechanism to approve or adjust the endorsed allocations prior to 1 January each year.

10. Utilisation of a quota

- 10.1 The effective allocated catch limit is the quota allocated to a particular CPC. CPCs will be free, subject to appropriate bilateral agreements in the case of waters within coastal state EEZs, to take their quota anywhere within the area to which the TAC for the species in question relates i.e. the IOTC area of competence or sub areas. The Science Committee will monitor the spatial distribution of catches in order to ensure that this does not lead to excessive fishing in any one particular area or part of the stock (e.g. on juveniles).
- 10.2 In the event that CPCs have received more quota than they can fish themselves they may transfer all or part of their quota to one or more CPCs to take on their behalf anywhere in the IOTC area of competence. They may also choose to allocate part of any surplus to a voluntary CPC set aside for one or more years, and that may or may not be taken up during that quota allocation period. CPCs will also be free to enter joint ventures or charter arrangements to take their quotas and shall notify the Commission of such charter and joint venture arrangements which shall be accorded appropriate data and confidentiality status in accordance with the rules of the Commission.
- 10.3 CPCs receiving a quota will be responsible for defining how that quota will be allocated amongst it's fleet and for monitoring and ensuring compliance of the uptake of the quota by it's fleet, charter vessels or joint ventures.
- 10.4 With the exception of artisanal vessels, only vessels on the IOTC record of authorised vessels will be eligible to receive a quota from their flag state, or charter State. CPCs will however need to indicate the number, size and fishing gear of artisanal vessels fishing for tuna.
- 10.5 Where a quota is transferred or traded, the CPC receiving the quota will take over responsibility for monitoring and ensuring compliance of the uptake of the quota by it's fleet.

11. *Trade and transfers of a quota between CPCs*

- 11.1 The transfer of quota or part of a quota between CPCs is permitted. Quota may not be transferred to any third party that is not an IOTC member or cooperating non contracting party.
- 11.2 For the first fifteen years of the quota allocation system, or three quota allocation periods, whichever is greater, the trade of quota or part of a quota between CPCs is NOT permitted. After this time, this will be reviewed by the Commission and a decision made as to whether permanent trade of quota will be permitted. Permanent trade between CPCs has the effect of modifying the baseline nominal catch proportion, by removing it from one CPC and adding it to another. Appropriate control rules will need to be developed if permanent trade of quota is to be permitted in future.

12. *Reallocation of quota between years*

- 12.1 Underutilised quota in any one year by any CPC will NOT be added to that CPC allocation for the following year.
- 12.2 The Compliance Committee will define the sanctions to be imposed in the case that a CPC exceeds its quota in any one year. This will be reflected in the Standard Compliance Table.

13. *Obligations of CPCs receiving a quota*

All recipients of a quota

- 13.1 Receipt of a quota carries the obligation to adhere to and report on the rules of implementation of the quota system as defined in this proposal and to adhere to and apply all other relevant IOTC conservation and management measures.
- 13.2 The Compliance Committee of IOTC will arbitrate to address any disputes that may arise (e.g. arising from application of the allocation criteria) and ensure that quota is utilised appropriately.
- 13.3 CPCs anticipating to receive a quota will submit a Utilisation Plan to the IOTC Secretariat at least 30 days prior to the Commission Meeting detailing how that quota will be utilised amongst vessels flagged to that CPC, or any transfers anticipated, or any voluntary set aside.

Coastal States quota

- 13.4 During the first fifteen years of the quota allocation system (i.e. up to 2029) coastal states that receive a quota allocation that exceeds their current capacity to fish may transfer their quota to flag state CPCs that have fishing capacity, for example, to those that have fished during the historical reference period in their zone thereby maintaining the status quo and ensuring economic stability of the existing fishing fleet. Where existing agreements occur between DWFNs and coastal states for access to resources and that overlap with the introduction of the quota allocation system, these will remain in place without duplication, and with amendments to reflect permitted catch levels consistent with combined quota allocations.
- 13.5 The terms of the transfer (rent) of the allocation are for negotiation between the Coastal State and fishing flag state and will be undertaken subject to market forces. The Compliance Committee will address any disputes that may arise and ensure that quota is utilised appropriately.

- 13.6 At the start of the quota allocation system in 2014 Coastal States will update their fleet development plans (Resolutions 03/01; 09/02) which will be linked to the quota allocated to them. Over the first fifteen year period any uptake of quota by coastal states will also be reflected against the report on the implementation of their fleet development plan. As the coastal state develops its own capacity to fish during this period, it will reduce the amount of quota offered for transfer accordingly.

High Seas quota

- 13.7 In respect of the baseline nominal catch proportion defined in 2014 and the effective allocated catch (quota) allocated to flag state CPCs in any subsequent year in respect of historical levels of catch on the high seas up to 2014 (the ‘high seas quota’ see Annex 1, Table 1), the Commission agrees that all transfers of ‘high seas’ quota will be undertaken subject to market forces.

New Entrants / Set Aside

- 13.8 The set aside allocation will only be available to new Coastal State entrants that have attained the status of Cooperating non contracting party or full Member and the same control rules for allocation as defined above will be applied. As part of their application to IOTC new applicants shall also indicate the amount of quota they wish to receive from that available in the set aside. The Compliance Committee will review that application and the Commission will decide on the level of the set aside allocated to the new entrant. New DWFN may enter the fishery through transfer or trade of quota.
- 13.9 New entrants, like any other CPC, will be able to rent additional quota that may be made available for transfer by another party.

14. Compliance

- 14.1 The record of compliance in the application of IOTC conservation and management measures by the CPCs wishing to participate in the quota allocation process will be evaluated annually against a Standard Compliance Table (Annex 1, Table 3). The standard compliance table will be harmonised with other compliance rules defined by the Compliance Committee. Application of the standard compliance table is amongst the criteria used to set the Effective Allocated Catch Limit for each quota allocation period. Where the quota allocation period is more than one year (e.g. 3 years) this allows the uptake of any CPC quota held as a penalty in the CPC specific set aside to be taken up during the quota allocation period once compliance is demonstrated at the next Compliance Committee meeting (i.e. the next year), thus the penalty will apply for a minimum of one year.
- 14.2 In addition to conservation and management measures, the standard compliance tables will also include details on payment of contributions to IOTC. Failure to pay IOTC contributions in any year will result in a sliding scale of penalties with a 20% reduction in quota for the first year, 40% for the second year in arrears, and will disqualify that CPC from receiving a quota allocation for that quota allocation period where the CPC is three or more years in arrears.
- 14.3 There will be one standard compliance table produced each year for each participating CPC – these tables will collate and summarise the data already generated by the Secretariat each year for the review of the Compliance Committee. Additionally it will collate and summarise any additional reporting requirements related to monitoring and control of this quota allocation system that may be introduced from time to time.
- 14.4 A summary table will be prepared by the Secretariat that indicates the eligibility of each CPC to participate in the quota allocation scheme each year, and the level of any reduction in quota that will be applied that year arising from sanctions applied in respect of failure to comply with IOTC conservation and management measures (Annex 1, Table 4).
- 14.5 It is proposed that the Compliance Committee reviews and finalises the proposed standard compliance table, and level of sanctions during its meeting in 2013.

15. Monitoring implementation

15.1 The Compliance Committee meeting held prior to the Commission Plenary Session in 2013 will discuss any additional requirements that are necessary to administer and monitor the quota allocation scheme over and above the current mandatory requirements for reporting against IOTC conservation and management measures. CPCs are encouraged to submit proposals one month prior to the meeting.

16. Duties of the IOTC, the Secretariat, its various bodies and of CPCs

16.1 The following table provides a timeline for implementation of the quota allocation system and identifies the duties of the different bodies of the Commission.

Responsible body and actions to be taken	Deadline / date of meeting
Technical meeting on quota allocation: <ul style="list-style-type: none"> Agree proposal on allocation criteria and allocation system. Recommend proposal to Commission 	
Commission Meeting : <ul style="list-style-type: none"> Adopt proposed quota allocation criteria and a quota allocation system for implementation during 2012 (specific parameters to be applied within the system can be further developed and adopted in 2012); Agree the factors to be taken into consideration when developing a management procedure for the TAC; 	
IOTC Secretariat and CPCs <ul style="list-style-type: none"> The Secretariat to develop and validate with CPC's their historical catch record, as soon as possible for years 1981-2010. 	
WPB and WPTT: <ul style="list-style-type: none"> Develop a management procedure for setting the TAC for billfish and tuna species 	
Science Committee: <ul style="list-style-type: none"> Review, approve and recommend the management procedure to the Commission 	
CPCs: <ul style="list-style-type: none"> Submit proposals to the Compliance Committee for additional monitoring and control requirements needed to administer the quota allocation system and indicate how they would be reflected in the standard compliance table. 	
Compliance Committee: <ul style="list-style-type: none"> Review proposals for additional monitoring and control related to implementation of the quota allocation system and recommend them to the Commission Agree the sanctions to be applied in the standard compliance table, update the table to reflect additional monitoring and control requirements, and recommend them to the Commission 	
Commission <ul style="list-style-type: none"> Adopt the management procedure for setting the TAC Agree the historical reference period for application by subsidiary bodies later in 2012 in calculation of the baseline nominal catch proportion. Agree parameters used in the control rules to set the effective allocated catch limit (Membership, compliance, etc) Agree the level of set aside if any. Define the quota allocation period to be applied. 	
WPB and WPTT: <ul style="list-style-type: none"> Apply management procedure and set the TAC for Yellowfin tuna, big-eye tuna and Swordfish 	
IOTC Secretariat: <ul style="list-style-type: none"> Apply control rules for the agreed reference period to determine the baseline nominal catch proportion by CPC 	
Science Committee: <ul style="list-style-type: none"> Review, approve and recommend the TAC derived by WPTT to the Commission Review and approve the estimates of baseline nominal catch proportion. 	
CPCs <ul style="list-style-type: none"> Fulfil all mandatory reporting requirements as required under IOTC conservation and management 	

<ul style="list-style-type: none"> measures • Submit Utilisation Plan to IOTC detailing how the quota will be utilised (i.e. mechanism of allocation amongst domestic fleets, level of transfers anticipated and to which CPC, etc) • Submit revised fleet development plans. 	
IOTC Secretariat <ul style="list-style-type: none"> • Complete usual generation of reports on compliance with IOTC conservation and management measures submitted during 2011/12 • Complete the Standard Compliance Table • Confirm that CPC plans for utilisation of quota conform to rules defined in Part 3 of the proposal. 	
Compliance Committee: <ul style="list-style-type: none"> • Review completed standard compliance table and agree its application for the allocation of quotas – Recommend to the Commission. • Review summary of CPC utilisation plans and for any that do not conform, recommend course of action to the Commission. 	
Commission: <ul style="list-style-type: none"> • Adopt the level of TAC set for Yellowfin tuna ,big-eye tuna and swordfish • Adopt the completed standard compliance table • Agree CPC utilisation plans (with revisions as appropriate) 	
IOTC Secretariat <ul style="list-style-type: none"> • Apply agreed level of TAC and control rules and derive effective allocated catch limits per CPC (quota). • Inform each CPC of its quota for the present quota allocation period. 	
CPCs <ul style="list-style-type: none"> • Utilise quota according to agreed utilisation plan • Submit any complaints to the Compliance Committee • Comply with all IOTC conservation and management measures and ensure that quota allocations are not exceeded. 	
Compliance Committee <ul style="list-style-type: none"> • Review complaints and require CPCs to act according to decisions of the Committee 	
All bodies <ul style="list-style-type: none"> • Report on and review the implementation of the quota allocation system on an annual basis during the defined quota allocation period. 	

ANNEX 1

STANDARD TABLES TO BE APPLIED IN THE QUOTA ALLOCATION SYSTEM FOR IOTC.

Table 1: Setting the Baseline nominal Catch Proportion (%): For each species for which the Commission has agreed a TAC, and for the defined reference period, to calculate the total catch (A) and proportion (%) of the total catch (B) in the EEZ of coastal states within the IOTC area of competence and the total high seas catch by flag states that have fished during the reference period (C)

Table 2: Setting the baseline nominal catch proportion: Application of the values derived in Table 1 to set the baseline nominal catch proportion (E)

Table 3: Standard Compliance Table, to set the level of reduction of the nominal catch for each CPC due to non compliance, F. This Table will be completed by the Compliance Committee during its meeting in 2013 when the level of sanctions for non compliance will be agreed. Over time the Standard Compliance Table is expected to evolve. Comments and examples are provided for guidance only.

Table 4: Summary of eligibility of each CPC to receive a full quota based on membership status (G, H) and compliance with IOTC conservation and management measures (F), and calculation of the combined adjustment (I) to be applied to the nominal catch allocation when setting the effective allocated catch limit.

Table 5: Setting the Effective allocated catch limit and final quota allocation, indicating the nominal catch allocation (K), effective allocated catch limit (L) and penalty CPC set-aside (M), the bonus allocation (P) and final quota allocated to each CPC (Q) for the quota allocation period.

Note: Tables 2, 4 & 5 need to be updated to indicate Mozambique's Membership Status as a full Contracting Party/Member

ADDENDUM 1 EXPLANATORY NOTE

This Explanatory Note provides a summary and explanation of the quota allocation system presented by Republic of Seychelles to the Technical Meeting on Quota allocation held in Nairobi 16-18 February 2011.

Recognising the legitimate rights and aspirations of both coastal states, in particular small island developing coastal states and territories and small and vulnerable economies; and, distant water fishing nations that have historically fished and invested in an area is a challenge. This proposal draws on the experience of other tuna RFMOs presented at the Kobe 2 workshop on managing tuna fishing capacity in Brisbane during 2010, and on the particular situation of IOTC and tuna stocks in the Indian Ocean.

This proposal describes a fair and transparent quota allocation system through a combination of suitable rights based quota allocation criteria and a phased implementation system. We propose a hybrid scheme based on catch per area in the EEZs and fishing zones of Coastal States, and on historical levels of catch by all eligible flag state fishing vessels on the high seas. As more than 50% of historical catches have been taken on the high seas this does not disadvantage distant water fishing nations that have historically invested in the Indian Ocean fisheries whilst by considering where the fish are caught it recognises the sovereign rights of Coastal States to a share of the resource.

UNCLOS Article 56(1) defines coastal states sovereign rights within their EEZs. Coastal states have the necessary jurisdiction related to those sovereign rights giving them the power to regulate the terms of use relating to activities for the exploitation of the living resources in their EEZs. In the past this has included the sale of licences and agreements with third parties for them to fish inside the EEZ of a coastal zone for a defined period. Fixed term licences and agreements do not confer a future right to the resources within an EEZ. Any catch history within an EEZ indicates the resource availability within that EEZ and it is appropriate to attribute it to the coastal state that claims the sovereign rights.

High seas catches by contrast are not claimed as sovereign rights and it may therefore be more appropriate to allocate quota on the basis of historical catch.

In this proposal by the Republic of Seychelles, the combination of the quota allocation criteria and the implementation system proposed for use of the allocated quota enables an equitable system to be developed so that in the short term the status quo is approximately maintained, thus ensuring economic stability for existing fleets, whilst over the longer term the development plans of coastal states can be realised in a phased and planned way. The quota allocation system must be considered in its entirety.

The system proposed provides an objective framework to define quota allocation which is a strength of the proposal. A baseline allocation is clearly defined at the start of the quota allocation system in 2012, and once established removes uncertainty for all CPCs. Each CPC knows its baseline allocation that is achievable if fully compliant. Economic stability is thus provided and the ability to plan for future development, including the accumulation of additional, or sale of surplus quota as desired. It avoids uncertainty that would follow from having less clearly defined criteria that require negotiation at the start of each new quota allocation period. It thus provides a sound basis for sustainable management of fish stocks.

A summary of the quota allocation system proposed is provided in Boxes 1-4. Box 1 indicates the rights allocation mechanism. More detail explaining how control rules for the quota allocation criteria will be applied is provided in Box 2 (The baseline nominal catch proportion) and box 3 (the effective allocated catch limit, or quota). Box 4 describes the Implementation of the quota allocation system.

A summary description of the system:

For any species for which the IOTC will apply a quota allocation system (e.g. yellowfin tuna, bigeye tuna) the system involves:

An assessment/management procedure to set the total allowable catch (TAC) in the whole of the IOTC area of competence or sub areas as relevant for each species. Any set aside allocation for new coastal state members is subtracted from the TAC to give the Effective TAC before allocation amongst CPCs.

Application of allocation Criteria

- Based on catches recorded during a defined historical reference period, applying control rules that set a baseline nominal catch proportion for all eligible CPCs (i.e. all coastal states and all distant water fishing nations that have fished in IOTC waters). The baseline is set only once in 2012.
- Deriving the CPC nominal catch allocation for the current quota allocation period from the effective TAC and the baseline nominal catch proportion.
- Applying adjustments to the nominal catch allocation related to membership status and compliance with IOTC conservation and management measures.
- The reallocation of any unallocated balance as a bonus to all fully compliant eligible CPCs. The final effective allocated catch, or quota, is thus derived for each CPC.
- An arbitration committee will be formed to deal with disputes

Implementation – i.e. use of quota, fishing (amongst others:)

- The quota will apply for a fixed Quota Allocation Period before it is recalculated (e.g. 3 years) to ensure economic stability and to enable fleet development.
- Quota may be taken anywhere in the area to which the TAC for the species in question relates i.e. in the IOTC area of competence, or a defined sub area,
- Only vessels on the IOTC register can utilise a quota
- CPCs will submit quota utilisation plans to IOTC – for use by their own flagged vessels and listed artisanal fleet. Any surplus may be transferred (rented) to CPCs that have fishing capacity, for example those that have historically fished, thus maintaining the status quo in the short term. In the medium to longer term, fleet development plans will take effect for the uptake of that surplus. The Arbitration Committee will deal with disputes.
- No reallocation of underutilised quota between years; sanctions may be imposed for CPCs exceeding quota
- CPCs responsible for monitoring and compliance of fishing by their own fleet on their own quota and any quota rented (transferred) to them.

A summary of responsibilities and a timeline to achieve implementation by 2012 is presented in Section 15 of the Proposal.

Annex 1 provides fully worked up tables for the application of control rules to set the **baseline nominal catch proportion** for each of yellowfin tuna, bigeye tuna and swordfish, and provides a detailed explanation of the methodology used. The calculations of the baseline nominal catch proportion (Tables 1 and 2 of the Proposal itself) are based on an historical reference period of 1981- 2008, the latter being the latest information available within the IOTC database. Hence these tables are shown in this explanatory note but have been left blank in the proposal itself – the proposal indicates an historical reference period of 30 years, 1981-2010, and this dataset will be available by 2012.

Annex 2 provides hypothetical examples of setting the **effective allocated catch limit**, or quota (i.e. Tables 3-5 of the Proposal itself; actual examples can only be provided after details such as the level of sanctions to be applied have been defined by the Compliance Committee during 2012).

This system:

- Provides a fair rights based distribution of benefits between coastal states and distant water fishing nations
- In the short term aims to maintain the status quo, providing economic stability
- In the longer term allows fleet development up to the level of any quota allocated to a CPC.
- Allows for new coastal state entrants by allocating a set aside
- Encourages full membership of IOTC by applying a sliding scale of allocations for members and cooperating non contracting parties; An exception will be made for Taiwan. China pending discussions on its membership, but this will be the only exception.

- Encourages full compliance with IOTC conservation and management measures, including payment of fees by setting sanctions (quota reductions) for non compliance.

Thus the system proposed has the potential to address more than just a means of sharing out the catch.

It also has the potential to encourage full compliance with all of IOTC’s conservation and management measures, making it a strong tool for the Commission.

ANNEX 1

CALCULATION OF THE BASELINE NOMINAL CATCH PROPORTION FOR YELLOWFIN TUNA, BIGEYE TUNA AND SWORDFISH FOR AN HISTORICAL REFERENCE PERIOD OF 1981-2008 (I.E. TABLES 1 AND 2 OF THE PROPOSAL FOR EACH SPECIES).

The Proposal indicates that the IOTC Secretariat is responsible for applying the control rules (*i.e.* methodology for estimation) for the agreed reference period to determine the baseline nominal catch proportion by CPC. The Science Committee will review and approve the estimates derived for submission to the Commission. This Annex is presented for guidance only and is based on the estimation procedure described below. Refinements to this procedure are also indicated below and may be recommended by the Technical Meeting on quota allocation. The final baseline nominal proportion allocated to each CPC may differ from the figures shown based on any such refinements to the estimation procedure and on the historical reference period adopted. It is noted that IOTC have developed a tool that enables the calculation of catches on the high seas and in CPC EEZs that uses the same approach as that outlined below.

The data sources used for all calculations of catch by area, flag, gear and species were the individual IOTC catch and effort databases for the different gear types. It is important to use an agreed data source that has been submitted by IOTC Members and CNCPs and is readily available to all parties to enable verification and transparency throughout the process. Longline data are available by year, flag and by 5° x 5° grid, purse seine and bait boat (pole and line) by a 1° x 1° grid. In order to divide the Indian Ocean catch by EEZ relating to the coastal states and those catches taken on the high seas, a series of 5° x 5° and 1° x 1° grids were overlaid with a chart of the EEZ or equivalent definitions for the entire region. Zone definitions were taken from the Global Maritime Boundaries Database (GMDB). The approximate proportion of each zone within each individual grid square was determined by visual estimation manually and the process repeated until the entire Indian Ocean region (FAO Areas 51 and 57) had been covered. It is recommended that for transparency that the process of allocating the proportion of grid squares to coastal state zones is repeated using a detailed GIS to determine the exact proportion of each zone inside a grid square; the IOTC tool does this.

Further refinements, such as allocating all catches in a grid square to the high seas where fishing is excluded from a coastal state EEZ except under license can also be made. At present IOTC does not have all such information and if this refinement is agreed during the Technical Meeting, CPCs should make the details available to the Secretariat.

Annual catch totals by species are then calculated for each gear type, coastal state zone and flag state in each grid square by multiplying the catch within a grid square by the proportion. For the purpose of this estimation the High Seas are considered the equivalent of a coastal state zone. The total catches for each coastal state zone for each species can then be calculated by adding the catch totals for all gears and all years within the defined period for each coastal state zone. Catches are assumed to be distributed uniformly throughout a grid square. These figures form the basis of Table 1. Artisanal catches (assumed to only occur in a coastal state’s own zone) are estimated by the secretariat and have been included in the IOTC catch and effort database. The total catch in a particular zone and as a proportion of the total Indian Ocean catch overall can now be calculated (Columns A and B in Table 2) along with the total high seas catch and as proportion of the total Indian Ocean catch for all fishing nations (Columns C and D in Table 2). The baseline catch proportion is calculated as the proportions taken inside the zone of a state and taken by the state on the high seas added together (Column E in Table 2).

EU catch data are disaggregated in the IOTC catch databases as they have historically been reported as such (hence France, Spain, Portugal appear as separate lines in the tables, and Table 1 shows the disaggregated catch data). In Tables 2 and 5, these catch data have been aggregated in the model so that all French, Portuguese and Spanish catches are included as “European Union” (and thus Spain/Portugal appear as zero in Table 2 and 5). French catches that have

been recorded separately for the French territories of Mayotte and Reunion are recorded as French catches only for the calculation of coastal state allocation in these tables.

A further refinement could be to use logbook data submitted to CPCs by vessels licensed to fish in their zones. However such information is not currently publically available and will be more difficult to verify. It is therefore recommended that the approach described above, with refinements to improve the estimation, is employed using the publically available and agreed IOTC database. By taking an historical reference period the catch by area over time is averaged; , the method applied similarly proportionately apportions catches by area. Furthermore, currently unreported elements such as artisanal catches are estimated within the IOTC database. Consequently even with accurate logbook data from the commercial and licensed part of the fishery there will still be an element of estimation in the procedure. Thus the above method provides a good approximation on which to base quota allocations and takes into account both commercial and artisanal catches. It provides a good basis for quota allocation.

Yellowfin – Table 1

Yellowfin – Table 2

Bigeye tuna – Table 1

Bigeye tuna – Table 2

Swordfish - Table 1

Swordfish – Table 2

Note:

1. All above tables need to be updated to indicate Mozambique's Membership Status as a full Contracting Party/Member.
2. All tables need to be updated with respect to historical catches in zone to correct the under-reporting due to use of an erroneous boundary under the EU Arrangements

ANNEX 2

Hypothetical worked examples applying control rules defined in the proposal to set the effective allocated catch limit for each species for each CPC (*i.e.* Table 4-5 of the Proposal).

All species – Table 4 using Hypothetical Standard Compliance Table outputs (F) to derive hypothetical values for the combined adjustment (I) to be applied to the nominal catch when setting the effective allocated catch limit.

Yellowfin – Table 5 Hypothetical example of CPC quota allocations and set aside using hypothetical input values

Bigeye tuna – Table 5 Hypothetical example of CPC quota allocations and set aside using hypothetical input values for the adjustments (I), from Table 4 above.

Swordfish – Table 5 Hypothetical example of CPC quota allocations and set aside using hypothetical input values for the adjustments (I), from Table 4 above.

Note:

1. All above tables need to be updated to indicate Mozambique's Membership Status as a full Contracting Party/Member.
2. All tables need to be updated with respect to historical catches in zone to correct the under-reporting due to use of an erroneous boundary under the EU Arrangements

APPENDIX IX

INDONESIA –PROPOSAL INF01

QUOTA ALLOCATION SYSTEM FOR INDIAN OCEAN TUNA FISHERIES

Proposed by INDONESIA Background The IOTC Resolution 10/01, which was adopted in 2010, requires the development of quota allocation system or any other relevant measure for the sound management of main targeted species falling under the IOTC competence, such as Yellowfin, Bigeye and Swordfish stocks. To meet such requirement, the IOTC Technical Committee has invited proposal and held meeting to discuss the quota allocation system. This proposal is the revised version of the proposal submitted during the first IOTC Technical Committee meeting in Nairobi – Kenya on 16-18 February 2011. In this proposal in the development of the quota allocation system, Indonesia maintain the importance of historical engagement of the country in fishing the resources, the legitimate and aspiration of the coastal country and the socio-economic importance of fisheries activity for the country. The revised version is simpler in how the quota for each individual country will be allocated. In this revised version, Indonesia also continues to acknowledge the importance of allocating certain percentage of the resource as a reserve stock or for allocation for the new entrance and for the compliance to the IOTC resolution.

The Indian Ocean Tuna Commission

Recognizing – that based on past experience in the fishery, the potential production from the resource can be negatively impacted by excessive fishing effort;

Recognizing – that during the 13th and 14th IOTC scientific meeting, the committee recommended the Yellowfin and Bigeye tuna catches should not exceed the MSY levels which have been estimated at 357,000 tones for Yellowfin and at 114,000 for Bigeye and around 30,000 for Swordfish;

Recognizing – that IOTC Resolution 10/01 requires the development of quota allocation system for Yellowfin and Bigeye tuna stocks;

Taking into account – the sovereign rights of coastal states for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, within their respective exclusive zones in accordance with Article 56 (1) of the United Nation Convention on the Law of the Sea, Montego Bay of 10 December 1982;

Taking into account – the available scientific information and advice, in particular the IOTC Scientific Committee conclusions whereby the Yellowfin and Bigeye tuna stocks might have been over or fully exploited in recent years;

Acknowledging – that the implementation of TAC without a quota allocation system would result in an inequitable distribution of the catches and fishing opportunities among the CPSs and non CPCs;

Noting – the importance of applying the precautionary approach for the management of the tropical tuna and swordfish stocks;

Noting – the 13th Scientific Committee recommendation to develop a Compliance Monitoring Scheme;

Adopts, in accordance with the provision of Article IX, paragraph 1 of the Agreement establishing the IOTC, the proposed quota allocation system is as follows.

Basic Principle and Consideration

1. Sustainable Fisheries – the development and implementation of quota allocation system should ensure the sustainability of fish stock. For that matter, the best available scientific data and method of analysis should be used to determine the MSY and TAC. A portion of the stock should be allocated to reserve stock or for the new entrance. The sum of all countries quota should not exceed the TAC.
2. Distribution of Benefits – the utilization of the resources should be distributed among members that consider historical engagement, geographic location/proximity to the resources, the fisherman livelihood and the socio-economic level of development of the country
3. Membership and Compliance – the quota allocated for each country should be given to the member country based on their membership statute and their level of compliance to the IOTC resolutions.

Main Criteria for Allocation There are seven main criteria for quota allocation for each country, namely:

- (1) Catch history
- (2) Dependence of fisheries sector to the national economy
- (3) Human Development Index
- (4) Coastal state of Indian Ocean
- (5) Bio-ecological Significance waters within the national jurisdiction of the country (spawning area, nursery ground and strategic migration path)
- (6) IOTC membership
- (7) Compliance with IOTC rule and regulation

Step by Step Allocation

1. Total Allowable Catch (TAC)

- TAC is determined based on the best available data and method by the scientific panel of IOTC
- TAC is allocated for member country as well as for new entrance.
- 2.5% of the TAC will be allocated to stock reservation or for new entrance as a starting percentage and will be increase gradually up to 10%.

2. Quota Allocation for each country (Q_{Ai}) is allocated based on the following simple formula:

$Q_{Ai} = Ave_Catch_i \times W1 + W2 + W3 + W4 + W5 \times CF1 + CF2$ where Ave_Catch_i is average catch (in tons) of the country reported to the IOTC for the last five years, $W1$ is dependence of fisheries sector to the national economy (high = 0.3, medium = 0.2, and low = 0.1), $W2$ is Human Development Index, HDI (underdeveloped=0.20, developing=0.15, developed=0.10), $W3$ is Coastal State of the Indian Ocean (yes = 0.25, no=0.15) $W4$ is Bio-ecological Significances (spawning ground, nursery ground, strategic migration path) within the country's ZEE (available = 0.25, none = 0.15) $CF1$ is IOTC membership (yes = 0.90, no = 0.85) $CF2$ is degree of compliance (full = 0.1, partial = 0.05, no = 0.0).

3. Adjusted Quota to MSY (Q_{i_adjust})

To ensure the total allocation for all the countries do not exceed the TAC, then the Q_{Ai} must be adjusted, as follows:
 $Q_{Ai_adjust} = Q_{Ai} \times \frac{Q_{A1} + Q_{A2} + Q_{A3} + \dots + Q_{An}}{TAC_{97.5}}$ where $TAC_{97.5}$ is the total allowable catch after 2.5% deduction for the new entrance or to stock reservation.

APPENDIX X

GUIDING LEGAL TEXT FOR A FUTURE ALLOCATION SYSTEM

Article V, paragraphs 1 and 2d, and Article XVI of the IOTC Agreement.

Article V. Objectives, Functions and Responsibilities of the Commission

1. The Commission shall 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.

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 states;

Article XVI Coastal States' Rights

This Agreement shall not prejudice the exercise of sovereign rights of a coastal state in accordance with the international law of the sea for the purposes of exploring and exploiting, conserving and managing the living resources, including the highly migratory species, within a zone of up to 200 nautical miles under its jurisdiction.

Part V of the Convention of the Law of the Sea on Exclusive Economic Zones; Articles 55, 56, 63 and 64.

Article 55 Specific legal regime of the exclusive economic zone.

The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal State and the rights and freedoms of other States are governed by the relevant provisions of this Convention.

Article 56 Rights, jurisdiction and duties of the coastal State in the exclusive economic zone.

1. In the exclusive economic zone, the coastal State has:

(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superadjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to: (i) the establishment and use of artificial islands, installations and structures; (ii) marine scientific research; (iii) the protection and preservation of the marine environment;

(c) other rights and duties provided for in this Convention.

2. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention.

3. The rights set out in this article with respect to the seabed and subsoil shall be exercised in accordance with Part VI.

Article 63 Stocks occurring within the exclusive economic zones of two or more coastal States or both within the exclusive economic zone and in an area beyond and adjacent to it.

1. Where the same stock or stocks of associated species occur within the exclusive economic zones of two or more coastal States, these States shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary to coordinate and ensure the conservation and development of such stocks without prejudice to the other provisions of this Part.

2. Where the same stock or stocks of associated species occur both within the exclusive economic zone and in an area beyond and adjacent to the zone, the coastal State and the States fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area.

Article 64 Highly migratory species.

1. The coastal State and other States whose nationals fish in the region for the highly migratory species listed in Annex I shall cooperate directly or through appropriate international organizations with a view to ensuring conservation and promoting the objective of optimum utilization of such species throughout the region, both within and beyond the exclusive economic zone. In regions for which no appropriate international organization exists, the coastal State and other States whose nationals harvest these species in the region shall cooperate to establish such an organization and participate in its work.

2. The provisions of paragraph 1 apply in addition to the other provisions of this Part.

APPENDIX XI**PROPOSAL OF THE LIKE-MINDED IOTC COASTAL STATES OF THE INDIAN OCEAN ON
GUIDING PRINCIPLES FOR ALLOCATION CRITERIA**

During the first Technical Committee Meeting on Allocation Criteria (TCAC01, Nairobi, 16-18 February 2011) a Group of Like-minded Coastal States of the Indian Ocean met at outside the plenary and noted that it was not possible, to agree at that stage, on a set of allocation criteria that may be used for developing a comprehensive quota system or any other relevant measures.

The Group met again on 18 February 2013, in Muscat, Oman, during the first day of the Second Technical Committee Meeting on Allocation Criteria (TCAC02, Muscat, 18-20 February 2013). The Group noted the increased harvesting pressure on the tuna resources in the IOTC area of competence.

The Group (listed below) considered and analysed the various proposals that has been submitted to the TCAC2 (see Annex 1).

- | | |
|---------------|----------------|
| 1. Australia | 9. Maldives |
| 2. Comoros | 10. Mauritius |
| 3. India | 11. Mozambique |
| 4. Indonesia | 12. Oman |
| 5. Iran | 13. Seychelles |
| 6. Kenya | 14. Sri Lanka |
| 7. Madagascar | 15. Tanzania |
| 8. Malaysia | 16. Thailand |

These like-minded coastal States of the Indian Ocean propose the following Guiding Principles to be used for the deliberation and consideration for adoption at the TCAC02 and then used in any future allocation criteria or any other relevant measures for the IOTC Commission:

1. Sustainable fishery.
2. Exclusive Rights of the Indian Ocean coastal States in their EEZs.
3. Special consideration for small, vulnerable economies and developing Coastal States of the Indian Ocean
4. Food and livelihood security
5. Equitable utilization and conservation of the resources.
6. Recognize and take account of the rights of all CPCs on the high seas.
7. Tuna management process shall be consistent with International laws.

Mindful of the unique nature of the fisheries in the region and complexities involved in developing a comprehensive scheme of allocation criteria, the Group also encouraged examining alternative management measures.

18 February 2013

Annex 1 (to Appendix XI)
PRINCIPLES AND RESULTS

PRINCIPLES	JAPAN	SEYCHELLES	EUROPEAN UNION	IRAN	MOZAMBIQUE	SRI LANKA	INDONESIA
Sustainable fishery	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Exclusive Rights of Indian Ocean coastal States in their EEZs	No	Yes	No	Yes	Yes	Yes	Yes
Special consideration for small, vulnerable economies and developing Coastal States of the Indian Ocean	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Food Security and Livelihood	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Equitable utilization and conservation of the resources	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recognize and take account of rights of all CPCs on the high seas	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tuna Management processes shall be consistent with international law	Yes	Yes	Yes	Yes	Yes	Yes	Yes

APPENDIX XII

STATEMENT BY THE EUROPEAN UNION AND FRANCE ON THE WORK UNDERTAKEN BY THE DRAFTING GROUP ON COMMON PRINCIPLES AND CRITERIA FOR AN ALLOCATION SYSTEM

The EU and France on behalf of its Indian Ocean Territories having participated in the discussions of the drafting group invoked by the IOTC chairman in order to discuss and draft the common principles and criteria on an allocation system, highlight the main inferences of the drafting group.

The work undertaken by the mentioned group was based on the main principles supported by all members in the 1st meeting of the Technical Committee Allocation Criteria, which the drafting group tried to upgrade, and the principles proposed by the Like-Minded IOTC Coastal States in its proposal of 18 February 2013 and in the appendix VI (Basic Guiding Principles agreed by Like-Minded Coastal States) of the report of the Technical Committee on Allocation Criteria held in Nairobi in 16–18 February 2011.

Elements discussed and proposed to be taken into account for a quota allocation system are to:

- a. ensure the sustainable utilisation of the resource,
- b. allocate fair and equitable fishing opportunities to all participants,
- c. recognise the rights of both Indian Ocean coastal states and distant water fishing nations,
- d. take into account the aspirations of Indian Ocean coastal states, including to develop their fishing opportunities,
- e. consider socio-economic factors, such as dependency of Indian Ocean coastal state economies, for the livelihood of their local communities on tuna and tuna-like fisheries and investments made in the tuna sector,
- f. consider the weight of imports of tuna products on economies and on the global consumption of tuna products of Contracting Parties,
- g. reflect the compliance record/status of each CPC,
- h. consider incentives for compliance with IOTC Conservation and Management Measures,
- i. enforce effectively rules against IUU fishing,
- j. consider degree of sustainability of fishing methods with respect to ecosystem approach,
- k. authorise the transferability (lease) of allocations,
- l. consider food security issues, which shall include not only the catch of tuna and tuna-like species, but also their processing and trade.

The list of the elements of a quota allocation system supported by the first Technical Committee on Allocation Criteria (paragraph 29 of the document IOTC-2011-SS4-R[4]) remain the only principles endorsed by the Allocation Criteria Technical Committee.

No other elements have been adopted by the drafting group or by the technical Committee.

APPENDIX XIII

SRI LANKA – PROPOSAL F

USE OF ALTERNATIVE MANAGEMENT MEASURES IN LIEU OF A QUOTA ALLOCATION SYSTEM FOR THE MAIN TARGET SPECIES IN THE IOTC AREA OF COMPETENCE

1. Background:

IOTC Resolution 10/01 identifies the adoption of a quota allocation system or any other relevant measures for the management of the stocks of three main target species, yellowfin, bigeye and swordfish, falling under the IOTC area of competence.

The need for such management measures grew with time. Indian Ocean region, which was historically fished by several coastal CPCs for millennia, opened for distant water fleet operations in two stages, first in the early 50s and 60s and again in the early 80s. Advent of the distant water fleets and the technology transfer which ensued resulted in broad-basing the fishery operations, with the use of more efficient gear and vessels. Mindful of the expanding fleet operations and the severe pressure this would have on resources, importance of taking suitable measures to arrest the situation was realised. Thus, Indo Pacific Tuna Project (IPTP) based in Colombo, the precursor of IOTC was set up in mid-80s to create a scientific base for eventual measures towards resource management in the Indian Ocean.

Indian Ocean has distinct social and geographic characteristics. Majority of the IOTC Member Countries are Indian Ocean coastal states. The total population of these coastal states amounts to over 2 billion, or nearly 30% of the global population. Meanwhile, if you consider the total IOTC Membership, including the Distant Water Fishing Nations, the population size of the IOTC CPCs stands at around 4.2 billion or over 60% of the total global population. On the other hand, Indian Ocean lands only little over 20% of the total global tuna production of nearly 4.5 million metric tons. Thus it is evident that urgent measures have to be taken to support IOTC efforts in tuna resource management in the India Ocean as we have to find a formula to share around 20% of the global tuna resource among 60% of the global population. Thus, it is justifiable to grant some exclusivity to coastal CPCs as against DWFNs which enjoy wide access to the global resource base in other ocean areas coming under other RFMOs.

On the other hand, such a mechanism will be very important for most of the Indian Ocean coastal states as they are totally and exclusively dependent on the IOTC areas of competence for their fish. This is mainly due to the lack of technology, capital, know-how, skill levels and market access, which prevents them from venturing in to distant water fishing. Thus, indigenous fisheries have remained essentially artisanal in nature with poor CPU. However, they play an important role in the nutrition of the populations in many coastal states, while also providing employment and livelihood to a large number. Only a fraction of the fish caught in these fisheries finds their way to export markets, while most being used for domestic consumption. This is in sharp contrast to industrial fisheries which cater for ocean-based or land-based processing sectors which supply the global market with a wide range of processed products.

2. The Concept

The present proposal, while recognising the inalienable rights and aspirations of coastal states and the legitimate rights of the distant water fishing nations that have fished in the area for varying periods of time over the last six decades, notes that:

- Any management measure should be science based, transparent and should consider emerging ocean regimes, fisheries dynamics, socio-economic and technical aspects of fisheries;
- Though the management system will, understandably, have some commonalities with systems in other RFMOs, it should adequately address issues specific to the region;
- Due to complexities involved, the system has to evolve through not only scientific, but also a political consultation process to avoid any negative economic and social ramifications, which can even challenge the safety and sustainability of fleet operations in the IOTC area of competence;

- The system should have mechanisms to encourage development of domestic industry of coastal states on a sustainable basis, where applicable. This could be achieved by setting up a separate fund dedicated for the purpose;
- a mechanism to address the rights of Distant water Fishing nations based on the duration of their engagement in fishing in the IOTC area of competence over the last five decades;

3. Alternatives to QAS

As an alternative to QAS, and in line with resolution 10/01, Sri Lanka wishes to propose implementation of appropriate alternative measures for conservation and management of tuna resources in the IOTC area of competence. Such a process should, inter alia, constitute modalities of easing pressure on the resources through a combination of appropriate measures, taking note of:

- The possible pressure a quota allocation system directed at the three targeted species could have on non-target species such as Skipjack, Albacore, Billfish and Sharks etc. possibly resulting in the depletion and even collapse of the stocks;
- An out-put control through allocation of quotas, which mostly suit temperate water fisheries targeting few selected species, may not suit multi-species multi-gear fisheries of the Indian Ocean, which involves trans boundary species such as tropical tunas.
- Application of QAS will also require a very strong Monitoring Control and Surveillance mechanism, which is yet another major challenge.
- As a direct consequence of setting catch limits through the allocation of quotas, the proportion of discards at sea could increase, creating a major obstacle for realising the anticipated management goals of establishing a QAS.
- On the other hand, poor availability of data and statistics, low institutional capacities, poor knowledge in fisheries dynamics, infrastructure constraints, noncompliance and poor enforcement of IOTC resolutions etc would pose a big challenge to successful implementation of a quota allocation system;
- the overcapacity of the industrial purse-seine fishery in the Indian Ocean which has had a negative impact on the resource base;
- intense IUU fishing contributing to overfishing, undermining efforts to conserve and manage tuna stocks, while also broad negative impact on the ecosystem;

As such, Sri Lanka views the use of alternative management measures as the most suitable alternative for managing the tuna and tuna like resources in the Indian Ocean. Thus, establishing an effective input control system may probably be a viable alternative for effective management or rebuilding the stocks. Going by similar measures being promoted and/or employed by other RFMOs, the following approaches could be considered in this regard;

1. Confining the carrying capacity of vessels operating in the IOTC area of competence. An eventual upper limit target of 1500 GRT may be a reasonable tonnage from a resource management angle.
2. To enforce regulatory measures on large-scale purse seine fishing vessel to alleviate negative impact on bigeye and yellowfin resources through landing of juveniles. It has been established that industrial purse seines put severe pressure on the resources as compared to other gears such as gillnets, longline, pole and line, and mini purse seines etc.
3. Enforcing a limitation of fishing capacity of CPCs as per IOTC resolutions 03/01, 06/05 and 07/05;
4. Establishing and expanding closed seasons / areas;
5. Regulating gear types/specifications;
6. Taking effective measures to eliminate IUU fishing within the IOTC area of competence;

Due to the growing demand for marine fish, tuna and tuna like species in particular, issues related to resource sustainability, fisheries management, fishing rights, quotas, market access etc. are bound to figure prominently in the global fisheries scenario in the future. Hence it is important for all the CPCs to take an informed decision on a crucial matter such as quota allocation with full knowledge on the scientific base for such a decision, long-term socio-economic ramifications and food-security of their populations. Hence, Sri Lanka feels it is the bounden duty of IOTC to ensure that any process of resource management in its area of competence should be just and fair and in line with the aspirations of the Indian Ocean Coastal states.

APPENDIX XIV**RECOMMENDATIONS OF THE SECOND TECHNICAL COMMITTEE ON ALLOCATION CRITERIA**

Note: Appendix reference refer to the Report of the Second Session of the Technical Committee on Allocation Criteria (IOTC-2013-TCAC02-R)

Legal advice

TCAC02.01 ([para. 35.](#)) The TCAC **AGREED** that there was a need for a legal expert to be present at the next TCAC meeting to offer advice to the TCAC. As such, the TCAC **RECOMMENDED** that the Commission allocated the necessary funds for this purpose, either for an external legal expert or for the FAO legal office to commit a suitable expert.

Meeting Participation Fund

TCAC02.02 ([para. 42.](#)) The TCAC **NOTED** that the attendance by delegates from developing CPCs to the TCAC in 2013 (24 delegates from 15 Members, and 1 delegate from a CNCP) was largely due to the IOTC MPF, adopted by the Commission in 2010 (Resolution 10/05 on the establishment of a Meeting Participation Fund for developing IOTC Members and non-Contracting Cooperating Parties), and **RECOMMENDED** that the Commission maintain this fund into the future.

Review of the draft and adoption of the report of the second technical committee on allocation criteria

TCAC02.03 ([para. 43.](#)) The TCAC **RECOMMENDED** that the Commission consider the consolidated set of recommendations arising from TCAC02, provided at [Appendix XIV](#).