



## **PROPOSAL E**

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

**PROPOSED BY: MOZAMBIQUE, 18 JANUARY 2013**

#### **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.

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• Agree the historical reference period for application by subsidiary bodies later in 2012 in calculation of the baseline nominal catch proportion.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

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

**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

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## **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 apportion 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