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

SUBMITTED BY: Maldives, Kenya and Mozambique

Explanatory memorandum

The Indian Ocean Tuna Commission, through Resolution 16/01 adopted an "Interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC area of competence" which was further modified in 2017 (Resolution 17/01), in 2018 (Resolution 18/01) and in 2019 (Resolution 19/01). The objective of the 2016 interim plan was to reduce the catches by 20% of the 2014 levels and to recover the stocks to levels above the interim target reference points with 50% probability by 2024.

However, the IOTC Commission consistently failed to achieve the catch reductions required by the interim plan and in 2020, the Scientific Committee, noted that even though some of the fisheries subject to catch reductions have reduced their catches, these reductions were offset by increase in catches from fisheries exempt and some fisheries subject to catch limits. Despite the existence of an interim rebuilding plan for the last 4 years, catches have continued to increase and in 2019 increased by around 5.22% of 2014, proving that the current measure is ineffective.

Furthermore, the Scientific Committee in 2020 noted that the Kobe II strategy matrix (K2SM) based on the 2018 stock assessment is not suitable for management advice due to critical errors in the projections and estimations for computing probabilities in the K2SM. The Scientific Committee also advised the Commission as a precautionary measure, the Commission should ensure that CPCs take all necessary action to achieve catch reductions and recommended that catches be reduced to a level at least below the C_{MSY} estimate until new information based on the 2021 stock assessment and its associated projections are carried out. The Scientific Committee also reminded the Commission that F_{2017} was 20% above the target reference point.

Thus, in order to bring Fishing intensity towards the target reference point which equates to around 16.7% reduction in catches compared to 2017 levels, and since the K2SM derived from 2016 stock assessment provides guidance for the Commission to take a precautionary reduction targets to recover stock by 2025, i.e, to reduce catches by 15% compared to 2015 levels, 346,438t.

Furthermore, the working party on tropical tuna noted the concerns of the change in fishing strategy of purse seine vessels to maintain yellowfin tuna catch reduction targets. This has led to a substantial increase in number of juvenile yellowfin tuna and bigeye tuna.

Thus, the measure amends 19/01 and proposes the following:

- Reduce and maintain overall yellowfin tuna catch in the Indian Ocean at 394,291t
- Eliminate exemptions provided for in 16/01 (superseded by 17/01, then by 18/01 then by 19/01)
- Reduce the role of supply vessels in purse seine operations to reduce fishing pressure on juvenile yellowfin tuna
- Differentiate reductions based on development status of CPCs as reflected in UN Fish Stocks agreement
- Reduce burden on CPCs that are subjected to catch reductions/gear change by other IOTC resolutions
- Strengthen the penalty, compliance and monitoring mechanisms.

RESOLUTION ~~19/01~~ 21/xx
ON AN INTERIM PLAN FOR REBUILDING THE INDIAN OCEAN YELLOWFIN TUNA STOCK IN THE IOTC AREA OF COMPETENCE

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

The Indian Ocean Tuna Commission (IOTC),

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

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

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

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

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

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

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

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

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

CONSIDERING the 23rd IOTC Scientific Committee (7-11 December 2020) confirmed that the yellowfin tuna stock is overfished and subject to overfishing and recommended that, as a precautionary measure to reduce overfishing, catches should be reduced to a level at least below the CMSY estimate (403 000 MT) from the 2018 assessment until new information, based on the 2021 stock assessment and its associated projections, is available;

FURTHER NOTING that F2017 was 20% above the target reference point FMSY which infers the need to implement an overall reduction of catches of 16.7% to meet the reference point FMSY. This indicates a need to reduce catches significantly below the CMSY estimate;

CONSIDERING THAT the most recently estimated spawning biomass was 17% lower than the target BMSY and well above the limit reference point of 0,4 BMSY;

~~FURTHER CONSIDERING the management advice of the 21st 23rd session of the Scientific Committee, that given on the limitations and uncertainties in the stock assessment and the inability to use K2SM derived from the 2018 yellowfin tuna stock assessment, the catches to be reduced to a level at least below the C_{MSY} estimate (403, 000MT) from the 2019 assessment and the need to decrease F_{2017} to the target reference point;~~

~~FURTHER CONSIDERING the issues raised in the 23rd session of the Scientific Committee regarding the estimated K2SM probabilities derived from the 2018 stock assessment, and that due to critical errors in the projections and estimtions for computing the probabilities in the K2SM developed in 2018, the K2SM is not suitable to provide management advice.~~the K2SM derived from 2016 provides guidance for the Commission on precautionary reduction ~~targets to recover stock by 2025 (to reduce catches by 15% compared to 2015 levels, 346,438t);~~

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

FURTHER CONSIDERING that SC2020 cautioned that Fishing Mortality of 2017 was 20% higher than higher than the target reference point of Fishing Mortality at MSY, and that a reduction in fishing mortality of 20% to achieve the target reference point of FMSY equates to roughly a catch of 341,000 tons.

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

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

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

NOTING THAT Article V.2b of the Agreement for the Establishment of the Indian Ocean Tuna Commission give full recognition to the special interests and needs of Members in the region that are developing countries, in relation to the

conservation and management and optimum utilization of stocks covered by this Agreement and encouraging development of fisheries based on such stocks;

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

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

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

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

Application

1. This resolution shall apply to all fishing vessels targeting tuna and tuna like species in the Indian Ocean ~~of 24 meters overall length and over, and those under 24 meters if they fish outside the EEZ of their flag State,~~ within the IOTC area of competence.

2. This resolution will be effective from 1st January 2022. The measures contained within this Resolution shall be considered as interim measure and will be reviewed by the Commission no later than at its annual Session in ~~2020~~ 2022.

3. Notwithstanding paragraph 2, this Resolution shall be reviewed when a formal Management Procedure for the management of the yellowfin tuna stock is adopted by the Commission and in effect.

4. Nothing in this resolution shall pre-empt or prejudice future allocation of fishing opportunities.

Catch limits

5. **Purse seine:** CPCs whose reported purse seine catches of yellowfin tuna;
    a. ~~reported~~ for 2014 were above 5000 MT to reduce their purse seine catches of yellowfin by ~~15~~ 25% from the 2014 levels.

    b. for 2014 were below 5000MT but average catch of yellowfin tuna from 2014 to 2019 were above 2000MT, to reduce their purse seine catches of yellowfin tuna by
        i. 25% of the average catch for the period, 2014 to 2019 for developed CPCs
        ii. 20% of the average catch for the period 2014 to 2019 for developing and least developed CPCs

    c. for the period from 2014 to 2019 were on average below 2000MT to maintain their catches below 2019 yellowfin tuna catch level.

    d. for Small Island Developing States bound by paragraph a) and b(ii) to reduce their purse seine catches by 18% and 14% respectively.

6. **Gillnet:** CPCs whose reported Gillnet catches of yellowfin tuna;
    a. ~~reported~~ for 2014 were above 2000 MT to reduce their Gillnet catches of yellowfin by ~~10~~ 15% from the

2014 levels.

b. for 2014 were below 2000MT but average catch of yellowfin tuna from 2014 to 2019 were above 2000MT, to reduce their gillnet catches of yellowfin tuna by
   i. 15% of the average catch for the period, 2014 to 2019 for developed CPCs
   ii. 12% of the average catch for the period, 2014 to 2019 for developing and least developed CPCs.

c. for the period from 2014 to 2019 were on average below 2000MT to maintain their catches below 2019 yellowfin tuna catch level.

7. **Longline:** CPCs whose reported Longline catches of yellowfin tuna;
   a. ~~reported~~ for 2014 were above 5000 MT to reduce their Longline catches of yellowfin by ~~10~~ 15 % from the 2014 levels.

   b. for 2014 were below 5000 ~~2000~~MT but average catch of yellowfin tuna from 2014 to 2019 were above 2000MT, to reduce their longline catches of yellowfin tuna by
      i. 15% of the average catch for the period, 2014 to 2019 for developed CPCs
      ii. 12% of the average catch for the period, 2014 to 2019 for developing and least developed CPCs.

   c. for the period from 2014 to 2019 were on average below 2000MT to maintain their catches below 2019 yellowfin tuna catch level.

8. **CPCs' other gears:** CPCs whose reported catches of yellowfin tuna;
   a. reported from other gears reported for 2014 were above 5000 MT to reduce their other gear catches of yellowfin by ~~5~~ 9 % from the 2014 levels.

   b. for 2014 were below 2000MT but average catch of yellowfin tuna from 2014 to 2019 were above 2000MT, to reduce their other gear catches of yellowfin tuna by
      i. 9% of the average catch for the period, 2014 to 2019 for developed CPCs
      ii. 6% of the average catch for the period, 2014 to 2019 for developing and least developed CPCs.

   c. for the period from 2014 to 2019 were on average below 2000MT to maintain their catches below 2019 yellowfin tuna catch level.

9. CPCs overall catch limit for yellowfin tuna is the sum of their catches arising from paragraphs 5, 6, 7, and 8. CPC's may choose to compensate for over-catch of one gear/fleet with a higher reduction from another gear/fleet of that CPC, keeping within its overall catch limit for that particular year.

[9bis] CPCs intending to reassign catch allowance from one gear/fleet to another, under paragraph 9 shall notify the Secretariat as soon as practicable and not later than 31st December for that particular year.

[9tera] Notwithstanding paragraphs 5c, 6c, 7c and 8c, if the overall catch limit arising in paragraph 9 is less than 2000MT for any given coastal CPC, such CPCs may catch up to 2000MT of yellowfin tuna.

10. In applying the catch reductions by gears in provisions in paragraph 5, 6, 7 and 8, Small Island Developing States and Least Developed Countries can either choose between catches of yellowfin tuna reported for either 2014, or 2015. ~~For such CPCs Paragraph 12(a) is applicable over the accumulated catch in 2018 and 2019~~.

~~11. Exceptionally for 2019 and 2020, Small Island Developing States CPCs that contributed less than 4% of the total yellowfin catch of the Indian Ocean in 2017, shall reduce their purse seine catch by 7.5% of 2018 levels.~~

~~12. Any CPC to whom para 5- 10 do not apply and whose catches exceeded the threshold limits in any subsequent year (from 2017), shall reduce their catches to the levels prescribed for that particular gear as mentioned in paragraphs 5, 6, 7 and 8.~~

11. Flag States will determine appropriate methods for achieving these catch reductions, which could include capacity reductions, effort limits, *etc*.., and will report to the IOTC Secretariat in their Implementation Report every year.

[11bis] Any CPC who submits updated catch histories of yellowfin tuna in accordance with IOTC resolution 15/01 and verified by the secretariat and the Scientific Committee, shall have a right to access yellowfin tuna in accordance with the limits prescribed in the Resolution.

Over catch of annual limit

12. If over catch of an annual limit for a given ~~fleet of a~~ CPC prescribed in paragraph 9~~listed in paragraph 5 to 10~~ occurs, catch limits for that ~~fleet~~ CPC shall be reduced as follows:

~~a. If the accumulated catch in 2017, 2018 and 2019 exceeds the sum of the catch limit[1] for 2017, 2018 and 2019 the excess (over-catch) shall be deducted from the 2021 catch limit.~~
~~b. for 2020 and following years, 100% of that over-catch shall be deducted from following two years limit; unless~~

a. for over-catch of limits set forth in Resolution 19/01, in 2020 and/or 2021, 100% of that over-catch shall be deducted from following two years limit

b. over-catch in 2022 and following years, 100% of that over-catch shall be deducted from the following two years' limit, unless;

c. Over-catch for that ~~fleet~~ CPC has occurred in two or more consecutive years, in which case 125% of the over-catch shall be deducted from the following two years limit.

13. CPCs that are subject to catch reductions due to over-catch shall inform the Commission via the IOTC Compliance Committee, corrective actions taken by the CPC to adhere to the prescribed catch levels, ~~any reductions in the following year because of over catch in paragraph 12~~ in their implementation Report.

14. The revised limits from paragraph 12 will apply in the following year and CPCs compliance shall be assessed against the revised limits reported to the IOTC Compliance Committee.

15. The tropical tuna data submitted by CPCs in accordance with Resolution 15/01 *"On the recording of catch and effort data by fishing vessels in the IOTC area of competence"* and Resolution 15/02 *"Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)"* shall be reviewed by the Secretariat and the Scientific Committee for inconsistencies. In such cases, the data used for catch limit calculations shall be based on the estimates derived by the Secretariat and endorsed by the Scientific Committee.

~~[1] Catches of Indonesia is based on the national reports submitted to the Scientific Committee~~

[Supply Vessels

16. CPCs shall gradually reduce supply vessels[2] by 31st December 2022 as specified below in (a), (b), (c) and (d). Flag States shall submit the status of reducing the use of supply vessel as part of the report of Implementation to the Compliance Committee.

    a) ~~From 1st of January 2018 to 31st December 2019: 1 supply vessel in support of not less than 2 purse seiners, all of the same flag State[3].~~

    b) ~~From 1st of January 2020 to 31st December 2020: 2 supply vessels in support of not less than 5 purse seiners, all of the same flag State[4].~~

    a. Until the 31st December 2021: 2 supply vessels in support of not less than 5 purse seiners of all the same CPC.

    b. From 1 January 2022 to 31 December 2024: 3 supply vessels in support of not less than 10 purse seiners, all of the same CPC[3].

    c. After 31 December 2024: No supply vessels shall be used by Purse seine vessels in IOTC area of competence.

    d. No CPC is allowed to register any new or additional supply vessel on the IOTC Record of Authorized Vessels ~~after 31st December 2017.~~

17. A single purse seine vessel shall not be supported by more than one single supply vessel of the same CPC ~~flag State~~ at any point of time.

18. Complementary to Resolution 18~~15~~/08 ~~[superseded by Resolution 17/08, then by Resolution 18/08]~~ and to Resolution 15/02, CPC/flag States shall report annually before the 1st of January for the coming year of operations which Purse seiners are served by each supply vessel. This information will be published on IOTC website so as to be accessible to all CPCs and is mandatory.]

~~19. CPCS shall report by 1 March 2019, the number of FADs that were deployed in 2018 and 2019 by purse seine vessels and associated supply vessels per 1°x1° grid~~

Gillnet

20. Without prejudice to Article 16 of the IOTC Agreement, CPCs shall encourage phasing out or convert gillnet fishing vessels to other gears, considering the huge ecological impact of these gears and fast track the implementation of Resolution 17/07 *"On the Prohibition to use large-scale driftnets in the IOTC"*, noting that large-scale driftnets are prohibited in the IOTC Area of Competence from 1 January 2022.

21. CPCs shall set their gillnets at 2m depth from the surface in gillnet fisheries by 2023 to mitigate ecological impacts of gillnets.

22. CPCs are encouraged to increase their observer coverage or field sampling in gillnet fishing vessels by 10% using alternative data collection methodologies (electronic or human) verified by the IOTC Scientific Committee by 2023.

23. CPCs shall report the level of implementation of para ~~18 –~~ 20 - 22 to the IOTC Commission via the Compliance

[2] For the purpose of this resolution, the term "supply vessel" includes "support vessel"

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

Committee.

Administration

24. The IOTC Secretariat under advice of the Scientific Committee shall prepare and ~~circulate~~ publish a table of allocated catch limits disaggregated as per the conditions set out in paragraphs 5 – 10 for ~~preceding~~ following year, in December of the current year.

25. CPCs shall monitor the yellowfin tuna catches from their vessels in conformity with Resolution 15/01 *"On the recording of catch and effort data by fishing vessels in the IOTC area of competence"* and Resolution 15/02 *"Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non Contracting Parties (CPCs)"* and will provide a summary of most-recent yellowfin catches for the consideration of the IOTC Compliance Committee.

~~26. For the purposes of the implementation of this resolution, CPCs shall submit their catches of yellowfin disaggregated for vessel 24 m overall length and over, and those under 24 m meter if they fish outside the EEZ as per resolution 15/02.~~

26. Each year, the Compliance Committee shall evaluate the level of compliance with the reporting obligations and the catch limits deriving from this Resolution and shall make recommendations to the Commission accordingly.

27. The Scientific Committee via its Working Party on Tropical Tunas shall implement the "Workplan to improve current assessment of yellowfin tuna" and shall advice the Commission the financial and administrational requirements to further strengthen the work undertaken to minimize the issues and complexities regarding yellowfin tuna stock assessment.

[27bis] The Scientific Committee and its Working Parties shall prioritise the work on the yellowfin tuna management procedure and to provide advice to the Technical Committee on Management Procedures and the Commission to enable the Commission to adopt the yellowfin tuna management procedure at the earliest opportunity.

28. The Scientific Committee via its Working Party on Tropical Tunas shall ~~in 2019~~ undertake ~~an~~ evaluation of the effectiveness of the measures detailed in this Resolution, taking into account all sources of fishing mortality possible aiming at returning and maintaining biomass levels at the Commission's target level.

29. This Resolution supersedes IOTC Resolution 19/01 *On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock.*

APPENDIX 1

Development classification of IOTC ~~member countries~~ CPCs

Country	Status
Australia	Developed
Bangladesh	Least Developed
China	Developing
Comoros	Least Developed
Eritrea	Least Developed
European Union	Developed
France (OT)	Developed
India	Developing
Indonesia	Developing

Islamic Republic of Iran	Developing
Japan	Developed
Kenya	Developing
Republic of Korea	Developing
Madagascar	Least Developed
Malaysia	Developing
Maldives	Developing
Mauritius	Developing
Mozambique	Least Developed
Sultanate of Oman	Developing
Pakistan	Developing
Philippines	Developing
Seychelles	Developing
Sierra Leone	Least Developed
Somalia	Least Developed
Sri Lanka	Developing
South Africa	Developing
Sudan	Least Developed
Tanzania	Least Developed
Thailand	Developing
United Kingdom of Great Britain and Northern Island	Developed
Yemen	Developing

Source: United Nations World Economic Situation and Prospects 2020 (https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/WESP2020_Annex.pdf)