



IOTC-2023-WPDCS19-11\_Rev1

### UPDATES ON YELLOWFIN TUNA CATCH LIMITS FOR 2023 AND 2024

#### PREPARED BY: IOTC SECRETARIAT, LAST UPDATED: 22<sup>ND</sup> NOVEMBER 2023

### Purpose

To inform participants at the 19<sup>th</sup> Working Party on Data Collection and Statistics (WPDCS19) on the yellowfin tuna catch limits for 2023 (calculated) and 2024 (estimated) resulting from the application of the criteria set forth by IOTC Resolution 19/01 and 21/01 to the historical catch data of IOTC CPCs.

## Background

Considering among others:

- the discussions of the Working Parties on Tropical Tunas on the limitations and uncertainties in the stock assessment models, and
- 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.

the Commission, at its 20<sup>th</sup> Session 2016, adopted <u>IOTC Resolution 16/01</u> On interim plan for rebuilding the Indian Ocean yellowfin tuna stock in the IOTC area of competence, which among other things called IOTC CPCs to reduce their future catches of yellowfin tuna on a gear-specific basis, if and when these exceeded a given threshold.

Res. 16/01 was superseded by Resolutions 17/01, 18/01 and 19/01 which brought in minor changes to the procedures for the determination of per-gear catch reductions, while introducing mechanisms to penalize those CPCs that would exceed the maximum catch levels in one or more consecutive years.

In this document we will refer to Resolution 19/01, which still remains binding for five CPCs, 18/01 that remains binding for one, and 21/01 that is binding for all other CPCs. For convenience purpose, we define the type of fishery as *industrial* when the fisheries are composed of fishing vessels authorised to fish on the high seas or with a length overall of 24 m and above (Resolution 19/04) while *coastal* (or artisanal) fisheries, on the opposite, refer to any fishery composed of vessels of a length overall below 24 m exclusively operating in areas under national jurisdiction of their flag state.

The following points shall be noted:

• the **limits of applicability** of Res. 16/01, 17/01, 18/01 and 19/01, as indicated in the first paragraph of each version:

"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

- the **source of historical catches** to be used to produce estimates of catch reductions and maximum catch levels is the <u>best scientific estimates of retained catches</u> agreed by the IOTC Scientific Committee, with the exception of Indonesia whose catches are derived from the national Reports submitted to the IOTC Scientific Committee
- that India objected to Res. 19/01, and therefore Res. 18/01 remains binding in their case.

The catch reductions requested by Res. 19/01 are limited to industrial fisheries only (see the *limits of applicability* of the Resolution).

Considering that both Res. 18/01 and 19/01 only apply to industrial catches, India's objection to Res. 19/01 does not introduce any difference in the output catch limits, as India did not report any active industrial fishery for tuna and tuna-like species exceeding the set threshold for the years 2016 and following, and therefore is not currently subject to any yellowfin tuna catch limit.

It is also worth recalling that the adoption of IOTC best scientific estimates to determine catch limits and the expected reductions in future catch levels could potentially introduce differences with catch limits calculated using official catch data available to IOTC CPCs, as the best scientific estimates attempt to break catches for species aggregates that might include yellowfin tuna and – in some circumstances – re-estimate the species / gear composition of a given CPC as a whole (e.g., Indonesian artisanal fisheries).

Over the years, the IOTC Secretariat issued several circulars reporting the calculated / estimated catch limits as they applied to all IOTC CPCs, plus various amendments and updates following requests from clarifications issued by some members.

The list of the latest relevant circulars is as follows:

- IOTC CIRCULAR 2020-55 ("Regarding Resolution 19/01 yellowfin tuna allocated catch limits for 2021")
- <u>IOTC CIRCULAR 2020–55 rev1</u> ("Correction notice regarding Resolution 19/01 yellowfin tuna allocated catch limits for 2021")
- IOTC CIRCULAR 2021-78 ("Regarding yellowfin tuna allocated catch limits for 2022")
- <u>IOTC CIRCULAR 2022-04</u> ("Regarding the interpretation of Resolution 21/01 in relation to the yellowfin tuna allocated catch limits for 2022")
- <u>IOTC CIRCULAR 2022-56</u> ("Regarding IOTC yellowfin tuna allocated catch limits for 2023")
- IOTC CIRCULAR 2023-02 ("A communication from China regarding 2023 allocated catch limits for 2023")
- IOTC CIRCULAR 2023-04 ("A communication from Japan regarding 2023 allocated catch limits for 2023")
- IOTC CIRCULAR 2023-06 ("A communication from Bangladesh regarding 2023 allocated catch limits for 2023")
- <u>IOTC CIRCULAR 2023-21</u> ("A communication from Seychelles regarding 2023 allocated catch limits for 2023")
- <u>IOTC CIRCULAR 2023-47</u> ("Regarding yellowfin tuna allocated catch limits for 2023")

### IOTC Resolution 21/01

Res. 21/01 was adopted by the IOTC at its 25<sup>th</sup> session in June 2021. Objections were received after its adoption and therefore an extension period of 60 days was further applied.

However, only six objections were received and as these accounted for less than one third of the members the Resolution entered in force on 17 December 2021.

Compared to the previous resolutions (Res. 19/01 and preceding) the limits of applicability of Res. 21/01 are wider, as recalled by its first paragraph:

#### "This resolution shall apply to all CPCs within the IOTC area of competence"

which basically confirms that the resolution is relevant to **all** fisheries catching yellowfin tuna in the Indian Ocean, regardless of the size and area of operation of the vessels involved.

For this reason, Res. 21/01 takes into account also catches from artisanal fisheries to establish the base catch levels for each CPC and determine future catch reductions (when applicable). Artisanal catches were not considered *by design* in the preceding versions of this resolution, so catch levels and catch reductions are now global (at CPC level) and not gear-specific as in the past.

Several different conditions apply to determine the CPCs subject to catch reductions and the extent of the latter under Res. 21/01, including:

- a) Catch levels for the year 2014 (to determine how the resolution applies)
- b) Nature of each CPC (coastal state, SIDS, distant water fishing nation)
- c) Development classification<sup>1</sup> of each CPC (least developed, developing, developed)
- d) Historical catch levels from 2014 to 2019 (chosen with different criteria depending on a), b), and c))
- e) Reductions from the catch levels identified in d) to determine the base catch limits (also depending on a), b) and c))
- f) Potential penalties deriving from the application of IOTC Res. 19/01 to the years 2020 and 2021

Discussions on the various proposals for Res. 21/01 were supported by interactive simulations prepared by the IOTC Secretariat and based on best scientific estimates of historical catch data for years until 2019. These simulations were particularly useful to compare the outputs emerging from the two distinct proposals under consideration, and to assess the effect of changes in the revisions of criteria and reduction percentages.

The approval of the final proposal for Res. 21/01 was objected by the following six CPCs, to which one of the preceding resolutions (Res. 18/01 or Res. 19/01) still applies:

- 1. Indonesia
- 2. India (objected to Res. 19/01, and therefore Res. 18/01 applies in their case)
- 3. I.R. Iran
- 4. Oman
- 5. Madagascar
- 6. Somalia

The provisions of IOTC Res. 21/01 became effective on 1 January 2022, although due to the current IOTC data reporting cycle detailed information on catch levels for 2021, which are crucial to determine catch limits for 2022, were not available until 30 June 2022.

This paper provides an update on the **effective** yellowfin tuna catch limits for 2022 calculated using the officially reported catch data for 2021, and attempts to estimate **tentative** catch limits for 2023 by considering:

- a) That resolutions other than 21/01 might be binding for some CPCs, with all additional constraints that these imply (e.g., use of National Report catch data for Indonesia in the context of Res. 19/01)
- b) That catch levels for 2023 are not yet available, and that therefore the provided estimations for 2024 are based on assumptions that will be confirmed / disproved as soon as official catch data for 2023 are provided by all concerned CPCs (i.e., by the end of June 2024, tentatively)
- c) That for CPCs non objecting to Res. 21/01, Res. 19/01 remained in force until 31 December 2021, and that for this reason estimated penalties (in the form of additional catch reductions) might need to be applied to catch limits determined for 2022 for some CPCs, even in the context of Res. 21/01
- d) That Res. 21/01 applies to all fisheries, for which it determines catch limits on a CPC-by-CPC basis from 2022 onwards
- e) That Res. 19/01 applies to catches from industrial fisheries only, and that therefore artisanal catches for the CPCs bound to Res. 19/01 are not limited in any way
- f) That official catch data from Indonesia (to be used for the estimation of catch limits according to Res. 19/01) might be subject to revisions during the year, and furthermore differ from the best scientific estimates of retained catches for the fisheries and years concerned.

<sup>&</sup>lt;sup>1</sup> Source: <u>United Nations World Economic Situation and Prospects</u>, 2020

Interpretation of Resolution 19/01 and 21/01 as confirmed by the Commission at its 27<sup>th</sup> Session

Following the issues highlighted by Seychelles and shared through <u>IOTC CIRCULAR 2023-21</u>, the Commission at its 27<sup>th</sup> Session provided the following remarks (as extracted from its <u>report</u>):

39. The Commission **NOTED** that paragraph 13.b of Resolution 19/01, states that for 2020 and following years, 100% of that over-catch shall be deducted from the following two years limit. Additionally, Resolution 21/01, paragraph 14 provides for over-catch of limits recorded in 2020 and/or 2021, stating that 100% of that overcatch shall be deducted over the following two years limit in 2022 and/or 2023. The overlapping years within the two resolutions resulted in some CPCs having to pay-back the same over-catch, or portion of the same, twice.

40. The Commission **AGREED** that this situation was not the intended outcome of the Resolutions but is simply the result of drafting inconsistencies between Resolution 19/01 and 21/01, and further **AGREED** that in such case where payback applicable under Resolution 19/01 has been partially paid, it should not be paid back again under Resolution 21/01, but only the remaining over-catch amount should be paid to avoid causing a double penalty.

41. The Commission further **AGREED** that in the application of Resolution 21/01, over-catch repayment made under Resolution 19/01 should be taken into consideration and CPCs should only pay back the outstanding over-catch amount for the 2020-2021 period, rather than the full 100%. The Commission **REQUESTED** that the Secretariat issue a revision to the yellowfin tuna allocated catch limit for 2023.

The request included under paragraph 41 of the Commission report was taken into account, among other things, when producing the allocated catch limits for 2023 shared through <u>IOTC CIRCULAR 2023-47</u> (*"Regarding yellowfin tuna allocated catch limits for 2023"*) and the updates to the process included therein were also maintained when producing the catch limits calculated for 2023 and estimated for 2024.

## **Catch limit calculations**

Considering the above, the estimation of catch limits and potential penalties in agreement with Res. 19/01 and 21/01 is a necessary requirement to produce the actual catch limits for 2023 and the estimated catch limits for 2024.

The estimation of catch limits according to Res. 19/01 applies to all non-objecting CPCs until 2021, and to all other until further notice, including those that are currently bound to Res. 21/01 as the latter has specific provisions to incorporate penalties from the former.

The IOTC Secretariat has prepared two sets of estimations, taking in consideration:

- 1) **Fishery-specific catch limits and penalties** for CPCs with industrial fisheries active in the Indian Ocean (according to Res. 18/01 and 19/01)
- 2) Global catch limits for all CPCs (according to Res. 21/01), which also include estimations for those CPCs objecting to Res. 21/01 as a reference

and the results of these estimations are presented in <u>Appendix 1</u> and <u>Appendix 2</u>, respectively.

The historical catches used to calculate catch limits for Indonesia and I.R. Iran according to Res. 19/01, and for Seychelles according to Res. 19/01 and 21/01, reflect the latest updates on catch data for all fisheries concerned as submitted to the Secretariat by the three CPCs.

For the general details on the calculation of base annual limits, overcatches, and annual catch limits according to Resolutions 19/01 and 21/01 we refer to the process described in <u>IOTC-2022-WPDCS18-11</u> (*"Updates on yellowfin tuna catch limits for 2022 / 2023"*).

### Overall catch limits for 2020-2024 according to Res. 19/01 and 21/01

**Table 1** and **Table 2** below summarize the catch limits for CPCs bound to Res. 19/01 and Res. 21/01 respectively andare extracted from **Table A1** provided in the appendices of this document.

YFT annual	YFT annual catch limits (t) for 2020-2023 (calculated) and 2024 (estimated) as per Res. 19/01													
CDC	Fichom	Base annual limit		(	Catch limits	5								
СРС	Fishery	base annual limit	2020	2021	2022	2023	2024							
	PS	4,833	4,833	4,095	3,961	4,136	4,833							
IDN – Indonesia	LL	-	-	-	•	•	-							
	ART	-	-	-	-	•	-							
IND - India	LL	-	-	-	-	-	-							
IND - IIIula	ART	-	-	-	-	-	-							
	GN	16,948	16,948	-12,490	-398	-16,978	- 7,087							
IRN – I.R. Iran	PS	-	-	-	-	-	-							
	ART	-	-	-	-	-	-							
MDG – Madagassar	LL	-	-	-	-	-	-							
MDG – Madagascar	ART	-	-	-	-	-	-							
OMN – Oman	LL	-	-	-	-	-	-							
	ART	-	-	-	-	-	-							
SOM – Somalia	IND	-	-	-	-	-	-							
SOIVI - SUIIIdiid	ART	-	-	-	•	•	-							

**Table 1**: YFT annual catch limits (by fishery, catches in metric tonnes; t) for 2020, 2021, 2022, 2023 (calculated) and 2024 (estimated), for CPCs currently bound to Res. 18/01 (India) and 19/01 (all others). Catch limits for 2024 are estimated with the assumption that catches for 2023 will not exceed the catch limit calculated for the year. Cells with lighter backgrounds correspond to CPC / fishery / years where the catch limit (calculated or estimated) is lower than the base annual catch, whereas values in red correspond to negative catch limits. LL = Industrial longline, PS = Industrial purse seine, GN = Industrial gillnet, ART = Artisanal, IND = All other industrial fisheries

YFT annual catch limits	(t) for 2023 (calculate	ed) and 2024 (estimate	ed) as per Res. 21/01
CDC	Dees survey limit	Catch	limits
CPC	Base annual limit	2023	2024
AUS – Australia	2,000	2,000	2,000
BGD – Bangladesh	2,000	2,000	2,000
CHN – China	10,557	4,940	7,462
COM – Comoros	5,279	5,279	5,279
ERI – Eritrea	2,000	2,000	2,000
EU – European Union	73,078	72,091	73,078
FRA – France (territories)	500	500	500
GBR – United Kingdom	500	500	500
JPN – Japan	4,003	4,003	4,003
KEN – Kenya	3,654	3,654	3,654
KOR – Republic of Korea	9,056	9,056	9,056
LKA – Sri Lanka	33,245	33,245	33,245
MDV – Maldives	47,195	47,195	47,195
MOZ – Mozambique	2,000	2,000	2,000
MUS – Mauritius	10,490	10,140	10,140
MYS – Malaysia	2,000	2,000	2,000
PAK – Pakistan	14,468	14,468	14,468
PHL – Philippines	700	700	700
SDN – Sudan	2,000	2,000	2,000
SYC – Seychelles	39,577	37,732	39,577
THA – Thailand	2,000	2,000	2,000
TZA – Tanzania	3,905	3,905	3,905
YEM – Yemen	26,262	26,262	26,262
ZAF – South Africa	2,000	2,000	2,000
Totals	298,469	288,217	293,571

**Table 2**: YFT annual catch limits (all fisheries, catches in metric tonnes; t) for 2023 (calculated) and 2024 (estimated) for CPCs currently bound to Res. 21/01. Catch limits for 2024 are estimated with the assumption that catches for 2023 will not exceed the catch limit calculated for the year. Cells with lighter backgrounds correspond to CPC / years where the catch limit (calculated or estimated) is lower than the base annual catch.

# Conclusions

CPCs are invited to assess and review the procedures adopted to produce the outputs of **Table 1** and **Table 2**, confirm the validity of the results, and eventually provide a tentative estimate of their yellowfin tuna catches for 2023 (not yet available to the Secretariat) to update the estimates of catch limits for 2024.

All CPCs are also requested to consider how to best progress to ensure that catches of yellowfin tuna for the year 2024 are properly monitored and do not exceed the limits set overall (or by fishery) by the resolutions they are bound to.

# Appendix 1 – YFT catch limits for 2020-2023 (calculated) and 2024 (estimated) according to Res. 19/01 and 21/01

	СРС		Base			Catches (t)				Overcatche	es (19/01. t)			Annual cat	tch limits			1
Code	Status	Fishery	annual limit (t)	2018	2019	2020	2021	2022	2017-2019	2020	2021	2022	2020	2021	2022	2023	2024 (estimated)	Resolution
IND	DG, C	IND	none	7	13	2	1	1	none	none	none	none	none	none	none	none	none	18/01
IND	DG, C	ART	none	37,481	33,541	20,793	24,515	17,249	none	none	none	none	none	none	none	none	none	18/01
IDN*	DG, C	ш	none	1,309	559	1,093	3,116	4,232	none	none	none	none	none	none	none	none	none	
IDN*	DG, C	PS	4,833	5,218	3,918	3,372	5,490	2,151	738	-	1,395	-	4,833	4,095	3,961	4,136	4,833	
IDN*	DG, C	ART	none	33,779	37,006	40,006	48,500	61,902	none	none	none	none	none	none	none	none	none	
IRN	DG, C	GN	16,948	25,884	25,938	18,838	20,313	21,080	28,493	1,890	32,803	21,478	16,948	- 12,490	- 398	- 16,978	- 7,087	
IRN	DG, C	ART	none	32,766	32,109	29,477	23,968	17,741	none	none	none	none	none	none	none	none	none	19/01
MDG	LD, C	IND	none	29	40	33	29	29	none	none	none	none	none	none	none	none	none	13,01
MDG	LD, C	ART	none	675	675	675	675	675	none	none	none	none	none	none	none	none	none	
OMN	DG, C	IND	none	177	297	207	168	282	none	none	none	none	none	none	none	none	none	
OMN	DG, C	ART	none	28,660	36,735	68,578	74,912	74,519	none	none	none	none	none	none	none	none	none	
SOM	LD, C	ALL	none	N/R	N/R	N/R	N/R	N/R	none	none	none	none	none	none	none	none	none	
CHN	DG, DW	LL	12,027	15,486	12,640	12,781	12,570		4,123	755	5,043		12,027	7,526				
EU	DD, DW	PS	77,694	78,148	71,791	71,058	75,919		3,749	-	1,974		77,694	73,945				19/01
LKA	DG, C	LL	7,763	8,554	10,746	7,481	5,255	N/A	2,461	-	-	N/A	7,763	5,302		N/A		(until 2021)
SYC	DG, S, C	LL	5,836	6,484	9,790	8,126	3,778		4,603	2,290	3,690		5,836	88				(,
SYC	DG, S, C	PS	33,211	35,023	33,006	30,502	29,407		1,607	-	-		33,211	31,605				
AUS	DD, C		2,000	39	46	18	18	17	-	-	-			Ļ	2,000	2,000	2,000	
BGD	LD, C		2,000	-	-	2	142	825	-	-	-			Ļ	2,000	2,000	2,000	
CHN	DG, DW		10,557	15,486	12,640	12,781	12,570	13,847	4,123	755	5,043			-	7,658	4,940	7,462	
COM	LD, S, C	ALL	5,279	3,194	5,279	6,745	3,770	4,427	-	-	-			F	5,279	5,279	5,279	
ERI	LD, C		2,000	N/R	N/R	N/R	N/R	N/R	-	-	-			F	2,000	2,000	2,000	
EU	DD, DW		73,078	78,877	72,501	71,800	76,751	69,334	3,749	-	1,974			-	72,091	72,091	73,078	
FRA	DD,C		500	-	-	-	-	-	-	-	-			F	500	500	500	
GBR	DD, DW		500	13	17	8	-	2		-	-				500	500	500	
JPN	DD, DW		4,003	3,382	2,597	2,083	931	943	-	-	-			F	4,003	4,003	4,003	
KEN	DG,C	ALL	3,654	3,592	3,654	3,563	3,641	1,958	-	-	-				3,654	3,654	3,654	
KOR	DG, DW		9,056	6,990	10,790	3,687	6,208	4,259	-	-	-			F	9,056	9,056	9,056	
LKA	DG, C		33,245	39,817 47,217	44,756	37,013	31,318	30,038	2,461	-	-	N/A	N/	A	33,245	33,245	33,245	21/01
MDV MO7	DG, S, C		47,195	47,217	44,702	42,705	24,548	28,083	-	-	-			ŀ	47,195	47,195	47,195	
MOZ MUS	LD, C DG, S, C	ALL	2,000	11,656	269 12,684	301 9,779	358 9,711	75 11,191			-			-	2,000 10,490	2,000	2,000	
MYS	DG, S, C DG, C		2,000	446	428	374	9,711 391	339	-					F	2,000	2,000	2,000	
PAK	DG, C DG, C		14,468	18,384	9,358	7,919	8,470	7,470	-	-				-	14,468	2,000	14,468	
PAK	DG, C DG, DW	ALL	700	- 10,304	9,000	7,919	- 0,470	- 1,470	-					F	700	14,466	700	
SDN	LD, C		2,000	N/R	N/R	N/R	N/R	N/R	-	-	-			F	2,000	2,000	2,000	
SYC	DG, S, C		39,577	42,069	43,755	39,603	34,101	35,967	6,209	2,290	3,690			F	36,587	37,732	39,577	
THA	DG, 3, C DG, C		2,000		- 43,733		34,101	55,507						F	2,000	2,000	2,000	
TZA	LD, C	ALL	3,905	3,904	3,905	3,905	3,905	3,468	-	-	-			-	3,905	3,905	3,905	
YEM	LD, C		26,262	18,077	18,110	18,134	18,134	18,134	-		-			ŀ	26,262	26,262	26,262	
ZAF	DG, C		2,000	331	389	217	308	329	-	-	-			F	2,000	2,000	2,000	
	,-		2,250												2,230	2,230	2,200	

 Table A1: Catch limits (metric tonnes; t) of yellowfin tuna for 2020-2023 (calculated) and 2024 (estimated) by CPC objecting / subject to Res. 19/01 and 21/01

# Appendix 2 – YFT base annual limits and catch limits according to Res. 19/01

1. Purse seine         cpc       csc         Status       Baseline         Catch (tonnes)       c. Base annual         Res. 19/01 para 13a (2017, 2018, 2019)*       f. Overcatch 2017+2018+20													
СРС	Status					•							
		Year	Reduction	2014	2015	2016	2017	2018	2019	limit	d. Sum of annual limits = c x 3**	e. Accumulated catch	= e- d
EU	DD, DW	2014	15.0%	91,405	86,149	87,075	86,893	78,148	71,791	77,694	233,083	236,832	3,749
IDN~	DG, C	2014	15.0%	5,686	4,240	5,229	6,102	5,218	3,918	4,833	14,499	15,237	738
KOR	DG, DW	2014	15.0%	8,852	7,509	10,347	6,362	5,415	8,730	7,524	22,573	20,507	-
MUS	DG, S, C	2018	7.5%	4,844	5,448	7,404	7,681	11,322	12,290	10,473	31,419	31,293	-
SYC	DG, S, C	2015	15.0%	23,463	39,072	40,014	41,694	35,023	33,006	33,211	66,422	68,029	1,607
2. Longline         rt       c. Base annual         Res. 19/01 para 13a (2017, 2018, 2019)*         f. O												f. Overcatch 2017+2018+2019*	
Fleet	Status	Year	Reduction	2014	2015	2016	2017	2018	2019	limit	d. Sum of annual limits = c x 3**	e. Accumulated catch	= e- d
CHN	DG, DW	2014	10.0%	13.363	15,714	18,770	12,077	15,486	12,640	12.027	36.080	40,203	4,123
SYC	DG, S, C	2018	10.0%	1.606	2.339	2,739	3,647	6,484	9,790	5,836	11.671	16.274	4,603
LKA	DG, C	2014	10.0%	8,625	5,933	3,939	6,448	8,554	10,746	7,763	23,288	25,748	2,461
3. Gilln	et												
Fleet	Status	Bas	eline			Catch (1	tonnes)			c. Base annual	Res. 19/01 para 13a (2017, 2	018, 2019)	f. Overcatch 2017+2018+2019
Heet	Status	Year	Reduction	2014	2015	2016	2017	2018	2019	limit	d. Sum of annual limits = c x 3	e. Accumulated catch	= e- d
IRN	DG, C	2014	10.0%	18,831	22,809	23,350	27,515	25,884	25,938	16,948	50,844	79,337	28,493
4. Othe	r gears												
Fleet	Status	Bas	eline			Catch (t	-			c. Base annual			f. Overcatch 2018+2019
neet	Status	Year	Reduction	2014	2015	2016	2017	2018	2019	limit	d. Sum of annual limits = c x 2	e. Accumulated catch	= e- d
MDV BB	DG, S, C	2014	5.0%	11,416	9,270	4,978	10,543	10,749	10,165	10,845	21,690	20,914	-
MDV HL	DG, S, C	2014	5.0%	17.831	19.247	24,648	16.713	16.704	15,918	16,939	33.879	32,622	-

Catch data 2014-2022 from IOTC best scientific estimates (t)

CPCs that objected to Res. 21/01 and to whom Res. 19/01 still applies

Catch data 2014-2022 from National Reports or other official sources(t)

\* 2018-2019 for Seychelles

\*\* c x 2 for Seychelles

Table A2: Calculated base annual limits (column c) and historical overcatches (column f) (metric tonnes; t) of yellowfin tuna for industrial fisheries subject to reductions according to Res. 19/01

1. Purse	seine				2020			2021			2022			2023	<b>.</b>	2024
СРС	Status	a. Base annual limit	b. Overcatch	c. Limit	d. Catch	e. Overcatch	f. Limit	g. Catch	h. Overcatch	i. Limit	j. Catch	k. Overcatch	l. Limit	m. Catch	n. Overcatch	o. Limit
0.0	Status	a. buse annuar mite	2017+2018+2019*	= a	u. catch	= d - c	= a - b - e/2	g. cutch	= g - f	= a - h/2 - e/2	j. cuten	= j - i	= a - k/2 - h/2	=	= m- l	= a - n/2 - k/2
EU	DD, DW	77,694	3,749	77,694	71,058	-	73,945	75,919	1,974	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
IDN~	DG, C	4,833	738	4,833	3,372	-	4,095	5,490	1,395	3,961	2,151	-	4,136	4,136	-	4,833
KOR	DG, DW	7,524	-	7,524	2,393	-	7,524	5,806	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
MUS	DG, S, C	10,473	-	10,473	9,681	-	10,473	9,641	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
SYC	DG, S, C	33,211	1,607	33,211	30,502	-	31,605	29,407	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
										-						
2. Long	ine				2020			2021			2022			2023		2024
Fleet	Status	a. Base annual limit	b. Overcatch	c. Limit	d. Catch	e. Overcatch	f. Limit	g. Catch	h. Overcatch	i. Limit	j. Catch	k. Overcatch	l. Limit	m. Catch	n. Overcatch	o. Limit
meet	Status	a. base annuar mint	2017+2018+2019*	= a	u. catch	= <b>d</b> - c	= a - b - e/2	g. catch	= g - f	= a - h/2 - e/2	j. cutch	= j - i	= a - k/2 - h/2	=1	= m- l	= a - n/2 - k/2
CHN	DG, DW	12,027	4,123	12,027	12,781	755	7,526	12,570	5,043	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
SYC	DG, S, C	5,836	4,603	5,836	8,126	2,290	88	3,778	3,690	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
LKA	DG, C	7,763	2,461	7,763	7,481	-	5,302	5,255	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
3. Gilln	et				2020		2021			2022			2023			2024
Fleet	Status	a. Base annual limit	b. Overcatch	c. Limit	d. Catch	e. Overcatch	f. Limit	g. Catch	h. Overcatch	i. Limit	j. Catch	k. Overcatch	l. Limit	m. Catch	n. Overcatch	o. Limit
Heet	Status	a. Dase annuar mint	2017+2018+2019	= a	u. catch	= <b>d</b> - c	= a - b - e/2	g. catch	= g - f	= a - h/2 - e/2	j. cutth	=j-i	= a - k/2 - h/2	=1	= m- l	= a - n/2 - k/2
IRN	DG, C	16,948	28,493	16,948	18,838	1,890	- 12,490	20,313	32,803	- 398	21,080	21,478	- 16,978	-	16,978	- 7,087
4. Othe	r gears				2020			2021			2022			2023		2024
Fleet	Status	a. Base annual limit	b. Overcatch	c. Limit	d. Catch	e. Overcatch	f. Limit	g. Catch	h. Overcatch	i. Limit	i. Catch	k. Overcatch	l. Limit	m. Catch	n. Overcatch	o. Limit
rieet	Status	a. Dase annuar minit	2018+2019	= a	u. catch	= d - c	= a - b - e/2	g. catch	= g - f	= a - h/2 - e/2	j. cutti	= j - i	= a - k/2 - h/2	=1	= m- l	= a - n/2 - k/2
MDV BB	DG, S, C	10,845	-	10,845	10,697	-	10,845	7,085	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01
MDV HL	DG, S, C	16,939	-	16,939	15,181	-	16,939	8,928	-	N/A	N/A	N/A	N/A	N/A	N/A	See 21/01

Catch data 2014-2022 from IOTC best scientific estimates (t) CPCs that objected to Res. 21/01 and to whom Res. 19/01 still applies

~ Catch data 2014-2022 from National Reports or other official sources(t)

\* 2018-2019 for Seychelles

\*\* c x 2 for Seychelles

Table A3: Annual catch limits of yellowfin tuna (metric tonnes; t) for industrial fisheries subject to Res. 19/01 for the years 2020-2022 (columns *c*, *f*, *i*, <u>calculated</u>) and 2023 (column *I*, <u>estimated</u>), the latter only for the industrial gears of those CPCs objecting to Res. 21/01.

Catches for 2023 (column *m*) estimated to the same exact level of catch limits calculated for 2023 (column *I*).

Appendix 3 – YFT base annual limits and catch limits according	to Res. 21/01
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C	PC		Catche	s (best sci	entific esti	mates)		Refere	nce		<b>Catch limit</b>	(2022)
Code	Status	2014	2015	Average	Max (2017-2019)	2018	Last year (2022)	Year		i. Reduction	Criteria	j. Base annual limit = h * (1 - i) or fixed
AUS	DD, C	20	73	50	66	39	17	2014	20	-	Para. 8	2,000
BGD	LD, C	-	-	-	-	-	825	2014	-	-	Para. 8	2,000
CHN	DG, DW	13,363	15,714	13,401	15,486	15,486	13,847	2014	13,363	21%	Para. 5	10,557
СОМ	LD, S, C	1,399	1,748	4,426	5,279	3,194	4,427	2017-2019 (max)	5,279	-	Para. 7	5,279
ERI	LD, C	-	-	-	-	-	-	2014	-	-	Para. 8	2,000
EU	DD, DW	92,504	87,157	79,688	87,686	78,877	69,334	2014	92,504	21%	Para. 5	73,078
FRA	DD,C	-	-	-	-	-	-	2014	-	-	Para. 8 + 9	500
GBR	DD, DW	88	87	18	23	13	2	2014	88	-	Para. 8 + 9	500
JPN	DD, DW	4,072	3,478	3,327	4,003	3,382	943	2017-2019 (max)	4,003	-	Para. 7	4,003
KEN	DG,C	71	108	2,550	3,654	3,592	1,958	2017-2019 (max)	3,654	-	Para. 7	3,654
KOR	DG, DW	10,409	9,183	8,648	10,790	6,990	4,259	2014	10,409	13%	Para. 5 + 11	9,056
LKA	DG, C	37,778	32,673	40,850	44,756	39,817	30,038	2014	37,778	12%	Para. 5.a	33,245
MDV	DG, S, C	49,212	52,439	47,093	49,361	47,217	28,083	2015	52,439	10%	Para. 5.b + 10	47,195
MOZ	LD, C	5	69	197	269	155	75	2014	69	-	Para. 8	2,000
MUS	DG, S, C	4,908	5,530	10,786	12,684	11,656	11,191	2018	11,656	10%	Para. 6.b	10,490
MYS	DG, C	77	144	419	446	446	339	2014	144	-	Para. 8	2,000
РАК	DG, C	16,441	18,817	18,509	27,784	18,384	7,470	2014	16,441	12%	Para. 5.a	14,468
PHL	DG, DW	69	-	24	73	-	-	2014	69	-	Para. 8 + 9	700
SDN	LD, C	-	-	-	-	-	-	2014	-	-	Para. 8	2,000
SYC	DG, S, C	25,079	41,468	43,974	46,099	42,069	35,967	2017-2019 (avg.)	43,974	10%	Para. 5.b + 10	39,577
THA	DG, C	187	109	-	-	-	6	2014	187	-	Para. 8	2,000
TZA	LD, C	3,441	4,011	3,904	3,905	3,904	3,468	2017-2019 (max)	3,905	-	Para. 7	3,905
YEM	LD, C	29,180	24,518	18,083	18,110	18,077	18,134	2014	29,180	10%	Para. 5.b + 10	26,262
ZAF	DG, C	83	182	323	389	331	329	2014	182	-	Para. 8	2,000

Catches:  $0 \le$  catches < 2000 t; 2000 t  $\le$  catches < 5000 t; catches  $\ge$  5000 t

Status: LD = least developed country, DG = developing country, DD = developed country, S = small islands developing state, C = coastal state, DW = distant water fishing nation

**Table A4:** Calculated base annual limits (column *j*) for CPCs subject to Res. 21/01.

С	PC		Overcatch	es (19/01)	2021		2022			2023		2024
	<b>.</b>	a. Base	h 2020	- 2024	d Catalana	e. Limit	f. Catches	g. Overcatch	h. Limit	i. Catches	j. Overcatch	k. Limit
Code	Status	annual limit	b. 2020	c. 2021	d. Catches	= a - b/2 - c/2	=e	=f-e	= a - b/2 - c/2 - g/2	<i>= h</i>	= i - h	= a - g/2 - j/2
AUS	DD, C	2,000	-	-	18	2,000	17	-	2,000	2,000	-	2,000
BGD	LD, C	2,000	-	-	142	2,000	825	-	2,000	2,000	-	2,000
CHN	DG, DW	10,557	755	5,043	12,570	7,658	13,847	6,189.3	4,940	4,940	-	7,462
СОМ	LD, S, C	5,279	-	-	3,770	5,279	4,427	-	5,279	5,279	-	5,279
ERI	LD, C	2,000	-	-	-	2,000	-	-	2,000	2,000	-	2,000
EU	DD, DW	73,078	-	1,974	76,751	72,091	69,334	-	72,091	72,091	-	73,078
FRA	DD,C	500	-	-	-	500	-	-	500	500	-	500
GBR	DD, DW	500	-	-	-	500	2	-	500	500	-	500
JPN	DD, DW	4,003	-	-	931	4,003	943	-	4,003	4,003	-	4,003
KEN	DG,C	3,654	-	-	3,641	3,654	1,958	-	3,654	3,654	-	3,654
KOR	DG, DW	9,056	-	-	6,208	9,056	4,259	-	9,056	9,056	-	9,056
LKA	DG, C	33,245	-	-	31,318	33,245	30,038	-	33,245	33,245	-	33,245
MDV	DG, S, C	47,195	-	-	24,548	47,195	28,083	-	47,195	47,195	-	47,195
MOZ	LD, C	2,000	-	-	358	2,000	75	-	2,000	2,000	-	2,000
MUS	DG, S, C	10,490	-	-	9,711	10,490	11,191	700.6	10,140	10,140	-	10,140
MYS	DG, C	2,000	-	-	391	2,000	339	-	2,000	2,000	-	2,000
РАК	DG, C	14,468	-	-	8,470	14,468	7,470	-	14,468	14,468	-	14,468
PHL	DG, DW	700	-	-	-	700	-	-	700	700	-	700
SDN	LD, C	2,000	-	-	-	2,000	-	-	2,000	2,000	-	2,000
SYC	DG, S, C	39,577	2,290	3,690	34,101	36,587	35,967	-	37,732	37,732	-	39,577
THA	DG, C	2,000	-	-	1	2,000	б	-	2,000	2,000	-	2,000
TZA	LD, C	3,905	-	-	3,905	3,905	3,468	-	3,905	<i>3,905</i>	-	3,905
YEM	LD, C	26,262	-	-	18,134	26,262	18,134	-	26,262	26,262	-	26,262
ZAF	DG, C	2,000	-	-	308	2,000	329	-	2,000	2,000	-	2,000

 Status:
 LD = least developed, DG = developing, DD = developed country, S = small islands developing state, C = coastal state, DW = distant water fishing nation

 Calculated annual catch limit differs from base annual limit

Table A5: Annual catch limits for CPCs subject to Res. 21/01 for the years 2022-2023 (calculated, columns *e*, *h*) and 2024 (estimated, column *k*).

Catches for 2023 (column i) estimated to the same exact level of catch limits calculated for 2023 (column h)

# Appendix 4 – best scientific estimates of YFT retained catches (all fisheries combined, 2014-2022)

СРС	Status	2014	2015	2016	2017	2018	2019	2020	2021	2022	Trend
AUS	DD, C	20	73	67	66	39	46	18	18	17	$\sim\sim$
BGD	LD, C	0	0	0	0	0	0	2	142	825	/
CHN	DG, DW	13363	15714	18770	12077	15486	12640	12781	12570	13847	$\sim\sim$
сом	LD, S, C	1399	1748	5584	4806	3194	5279	6745	3770	4427	
ERI	LD, C	0	0	0	0	0	0	0	0	0	
EU	DD, DW	92504	87157	88249	87686	78877	72501	71800	76751	69334	
FRA	DD,C	0	0	0	0	0	0	0	0	0	
GBR	DD, DW	88	87	44	23	13	17	8	0	2	
IDN~	DG, C	45122	40571	36485	39910	40306	41483	44471	57106	68285	
IND	DG, C	33427	1715 <mark>9</mark>	19244	13932	37488	33554	20795	24515	17249	$\sim$
IRN	DG, C	46215	42599	45111	56102	58650	58047	48315	44281	38821	$\frown$
JPN	DD, DW	4072	3478	3389	4003	3382	2597	2083	931	943	
KEN	DG,C	71	108	108	404	3592	3654	3563	3641	1958	
KOR	DG, DW	10409	9183	11721	8164	6990	10790	3687	6208	4259	$\sim \sim$
LKA	DG, C	37778	32673	33735	37977	39817	44756	37013	31318	30038	$\frown$
MDG	LD, C	735	747	736	703	704	715	709	704	704	$\frown$
MDV	DG, S, C	49212	52439	53705	49361	47217	44702	42705	24548	28083	
MOZ	LD, C	5	69	174	168	155	269	301	358	75	
MUS	DG, S, C	4908	5530	7585	8017	11656	12684	9779	9711	11191	
MYS	DG, C	77	144	156	384	446	428	374	391	339	
OMN	DG, C	7208	15183	20983	19499	28837	37033	68785	75080	74801	
РАК	DG, C	16441	18817	25560	27784	18384	9358	7919	8470	7470	
PHL	DG, DW	69	0	0	73	0	0	0	0	0	$\searrow$
SDN	LD, C	0	0	0	0	0	0	0	0	0	
SOM	LD, C	0	0	0	0	0	0	0	0	0	
SYC	DG, S, C	25079	41468	43261	46099	42069	43755	39603	34101	35967	
THA	DG, C	187	109	0	0	0	0	0	1	6	<u> </u>
TZA	LD, C	3441	4011	4013	3904	3904	3905	3905	3905	3468	/
YEM	LD, C	29180	24518	21253	18061	18077	18110	18134	18134	18134	<u> </u>
ZAF	DG, C	83	182	183	247	331	389	217	308	329	$\sim$

Catch data 2014-2022 from IOTC best scientific estimates

Catch data 2014-2022 from latest updates of forms 1-RC (prior to their re-estimation by the Secretariat) CPCs objecting to Res. 21/01

 Table A6: Annual retained catches (metric tonnes; t) of yellowfin tuna by CPC and year (2014-2022)