# INTER-AMERICAN TROPICAL TUNA COMMISSION PERMANENT WORKING GROUP ON FLEET CAPACITY 25<sup>TH</sup> MEETING

Panama City, Panama 29 August 2024

# **DOCUMENT CAP-25-01**

# UTILIZATION OF VESSEL CAPACITY UNDER RESOLUTIONS C-02-03, C-12-06, C-12-08, C-15 -02 and C-18-06

This document contains updated data on the capacity of the purse-seine fleet in the Eastern Pacific Ocean and pending issues that should be addressed<sup>1</sup>.

It also includes information pertinent to the implementation of Resolutions <u>C-12-06</u> and <u>C-12-08</u> on capacity loans or concessions and chartering of vessels with temporary transfers of capacity and on the sealing of wells, respectively.

#### 1. INTRODUCTION

Resolution <u>C-02-03</u> on the capacity of the fleet operating in the Eastern Pacific Ocean (EPO) has been in force for twenty-two years. The capacity management system created by the Resolution establishes limitations essentially determined by the IATTC Regional Vessel Register. Therefore, the key elements of the Resolution address how vessels may be added to or removed from the Regional Register.

Each year, the Secretariat has made, and continues to make available to each Member and Cooperating Non-Member (CPC) a document that shows the history of each CPC's flag vessels with regard to the Regional Register since 2002, and how that has affected, historically, the changes in the well volume available to each CPC since the Resolution entered into force. A monthly report of all movements made in the Regional Register and related to capacity, including temporary loans and concessions as well as chartering, in accordance with Resolutions C-02-03, C-12-06, C-12-08, C-15-02 and C-18-06 is also sent. In addition to the possibility of accessing this information on the IATTC website where it is permanently updated, this ensures that at any time the Commission and all CPCs are fully and precisely informed of the situation regarding the capacity of the fleet.

It should also be recalled that, in June 2005, the Commission adopted a <u>Plan for Regional Management of Fishing Capacity</u>. The principal objective of the Plan is to establish a comprehensive program for managing the capacity of all fishing fleets operating in the eastern Pacific Ocean (EPO), to ensure the long-term sustainability of the fisheries covered by the IATTC. For the purse-seine fishery, this will mean a reduction in the current level of fishing capacity. According to section 3 of the Plan, which establishes its objectives and principles: "CPCs and all participants in these fisheries should limit the total fleet capacity to the present level and to reduce it, as appropriate, in accordance with an agreed program. After any targets for the fleet capacity have been achieved, CPCs and all participants in these fisheries should exercise caution to avoid growth in fleet capacity."

For some years, initially with resources provided by the European Union, and following the holding of

<sup>&</sup>lt;sup>1</sup> See document <u>SAC-06 INF-B Capacity scenarios</u>, prepared for the 6th meeting of the Scientific Advisory Committee in May 2015. It contains 11 scenarios of the impact on the tuna resources in the EPO of various increases in fleet capacity that would result from different resolutions of the currently pending capacity requests or capacity disputes.

several workshops on the issue in general or on specific aspects such as vessels buybacks, a consultant to facilitate progress in the consideration and development of an updated and more complete management scheme to address the excess capacity in the Eastern Pacific Ocean (EPO). That process is still ongoing after consideration and discussion in the Permanent Working Group on Fleet Capacity and in the Commission of several written and oral reports that were presented by the consultant. The latest document which he submitted t can be found here: <u>CAP-23- INF A & B</u> Consultant's report An update will be provided at the 24<sup>th</sup> meeting of the Working Group, including a proposal to hold a workshop with the participation of representatives of members as well as of the fishing sector, tentatively in Panama in September 2023.

#### 2. UTILIZATION OF WELL VOLUME TO DATE

The active purse-seine capacity on the Regional Register on 30 June 2024 is 279,071 m<sup>3</sup>. The capacity of inactive or sunk or vessels under construction vessels is 9,149 m<sup>3</sup>, and the capacity available as a result of movements of vessels on the Regional Register is 14,643 m<sup>3</sup>, for a potential total of 302,863 m<sup>3</sup>. In June 2002, when the Resolution entered into force, the active capacity was 218,482 m<sup>3</sup>, while the sum total of the active and inactive capacity, plus that included in paragraph 10 of the resolution, was 273,467 m<sup>3</sup>; although the current operative capacity is below that level (Figure 1), this represents an increase in the potential total capacity of 29,396 m<sup>3</sup>. It should be further noted that these numbers do not take fully into account the capacity requests in the footnote to the Resolution, which two of the three countries mentioned, Peru and Colombia, have utilized partially, with the approval of the Commission.

The following are the main reasons for this increase in the potential total capacity.

First, the addition of several vessels to the Regional Register in the months following the adoption of Resolution C-02-03 and subsequently, as agreed by the Commission to correct omissions by several delegations at the meeting at which the resolution was adopted.

Second, the increased capacity deriving from the actual measurement and confirmation of the wells volume of the vessels on the Regional Register, which in its great majority was merely estimated in 2002. In order to finalize this process and prevent any further increase, during its 89<sup>th</sup> IATTC Meeting held in Guayaquil, Ecuador, the Commission adopted Resolution C-15-02, which established a deadline for confirming capacity through such measurement, as follows:

"For the purposes of interpretation of paragraph 6 of Resolution C-02-03 with regard to the deadlines for confirming capacity, as of 1 January 2017 the well volume reflected on the Regional Vessel Register will be considered confirmed for vessels currently included in the Register. In the case of new vessels, the well volume notified at the time the vessel is added to the Register will be considered confirmed".

Third, consistent with the provisions of Resolution C-02-03, the Commission adopted several decisions that led to an increase of the potential total capacity. Pursuant to paragraph 10 of the Resolution, 5,000 m³ of well volume were granted to Peru in June 2011 to be used only by Peruvian-flag vessels operating only in waters under the jurisdiction of Peru, a restriction that was removed by the Commission in July 2014; the situation of some Colombian and Ecuadorian vessels was regularized in June 2013, and a number of capacity requests or disputes were resolved by the Commission in 2014, as described in the minutes of its 88th meeting.

At its 91<sup>th</sup> Meeting (Extraordinary), the Commission approved the activation of the capacity of Guatemala (3,762 m³) and Venezuela (1,688 m³) that had been restored to them by the Commission at its 88<sup>th</sup> Meeting (Extraordinary).

At 94<sup>th</sup> Meeting of the Parties, the Commission approved the activation of the capacity for the vessel Maria Del Mar (281 m³) (Flag: Ecuador) which is currently on the Inactive/Sunk PS Capacity List.

In 2021, a letter (0274-410 on 01 July 2021) was circulated regarding the vessel Milena A (Flag: Ecuador) barely missing the deadline of Resolution C-15-02 for confirmation of the vessel's well volume and since there was no objection to this modification this vessel from 996 m³ to 1,217 m³ which was an increased by 221 m³.

In the past, there have been several requests for changes in the capacity of vessels on the Regional Register that have sunk or been scrapped, with well volumes greater than those originally recorded in the Regional Register by the respective flag CPC and with which the vessels operated until they sank or were scrapped. This type of situation cannot arise any longer since Resolution C-15-02 stipulates that "as of 1 January 2017 the well volume reflected on the Regional Vessel Register will be considered confirmed for vessels currently included in the Register". In addition, it should be noted that these provisions have been applied literally, excluding the possibility after 1 January 2017 of any correction in the amount of the registered capacity of a previously unconfirmed vessel, even if this correction would have been made before the date upon the request of the respective flag State and the presentation of the appropriate documentation. The only change made afterwards were those derived from the restructuring of the wells of a vessel and any increase in total wells volume had to be covered by capacity made available to it by the flag State or through a process of temporary loan or compensated through the sealing of wells.

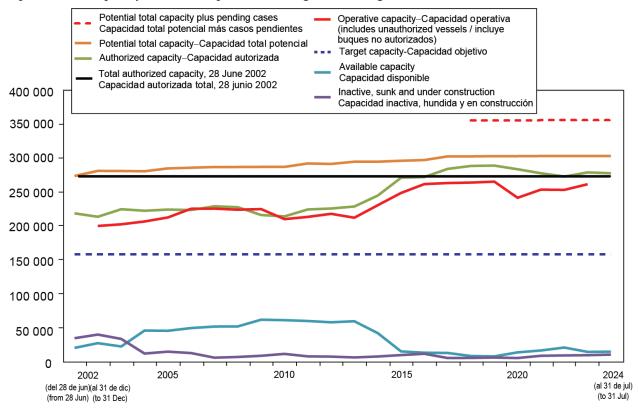


FIGURE 1. Active, inactive, available, potential total, and operative capacity, in cubic meters (m<sup>3</sup>) of well volume, 2002-2024 (see glossary in the Appendix).

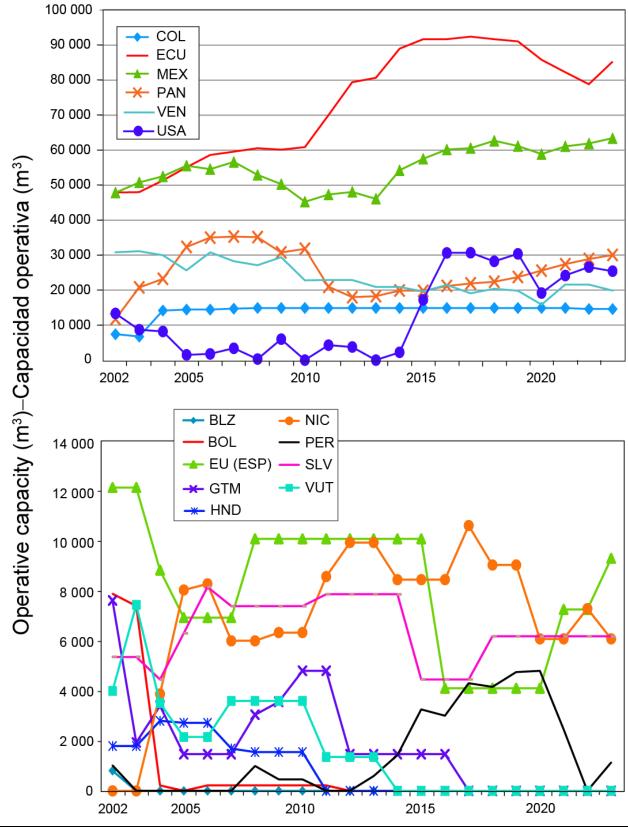


Figure 2 illustrates the evolution of the operative capacity of the fleets during 2002-2023.

**FIGURE 2.** Operative capacity of purse-seine fleets that fished in the EPO during 2002-2023 with current capacities (a) greater than and (b) less than 14,000 cubic meters of well volume.

## 3. EXCEPTIONS FOR ADDING NEW VESSELS TO THE REGIONAL REGISTER

Although the current system is not based on national capacity limits, paragraph 10 of Resolution C-02-03 and Resolution C-11-12 allow certain countries to add to their fleet new vessels that are not on the Register. The current situation regarding these exceptions is:

|              | Limit (m <sup>3</sup> ) |           |  |  |  |  |
|--------------|-------------------------|-----------|--|--|--|--|
|              | Provided                | Remaining |  |  |  |  |
| Costa Rica   | 9,364                   | 5,745     |  |  |  |  |
| El Salvador  | 861                     | 0         |  |  |  |  |
| Guatemala    | 1,700                   | 0         |  |  |  |  |
| Nicaragua    | 5,300                   | 0         |  |  |  |  |
| Peru         | 8,195                   | 454       |  |  |  |  |
| <b>TOTAL</b> | 25,420                  | 6,199     |  |  |  |  |

## 4. CAPACITY LOANS OR CONCESSIONS AND CHARTERS

Resolution C-12-06, approved in June 2012, establishes the rules of procedure regarding loans or concessions of capacity and chartering vessels with temporary transfer of capacity. The table details the agreements of this type recorded as of 30 June 2024.

| Capacit         | Capacity loans or concessions and chartering of vessels with temporary transfer of capacity carried out in accordance with Resolution C-12-06 |           |                    |          |  |  |  |  |  |  |  |
|-----------------|---|-----------|--------------------|----------|--|--|--|--|--|--|--|
| Year<br>started | Loaning/conced ing CPC  | Vessel    | Well volume (m³)   |          |  |  |  |  |  |  |  |
|                 | CAPACITY CONCESSIONS  |           |                    |          |  |  |  |  |  |  |  |
|                 |   |           |                    |          |  |  |  |  |  |  |  |
|                 |   | CAPACIT   | Y LOANS            |          |  |  |  |  |  |  |  |
| 2016            | SLV   | ECU       | Ugavi Dos          | 1,881    |  |  |  |  |  |  |  |
|                 | ECU   | PAN       | Juan Pablo II      | 442      |  |  |  |  |  |  |  |
| 2017            | GTM   | PAN       | Diva Maria         | 1,633    |  |  |  |  |  |  |  |
|                 | GTM   | PAN       | Ljubica            | 2,000    |  |  |  |  |  |  |  |
| 2022            | BOL   | ECU       | Chiara             | 222      |  |  |  |  |  |  |  |
| 2022            | GTM   | ECU       | Emilio             | 1,488    |  |  |  |  |  |  |  |
|                 | CRI   | ECU       | 542                |          |  |  |  |  |  |  |  |
| 2023            | CRI   | PAN       | Contadora I        | 1,907    |  |  |  |  |  |  |  |
|                 | CRI   | PAN       | Esthercho          | 1,170    |  |  |  |  |  |  |  |
| 2024            | BLZ   | ECU       | Ria de Aldan       | 220      |  |  |  |  |  |  |  |
| 2024            | SLV   | ECU       | Ria de Aldan       | 131      |  |  |  |  |  |  |  |
| VES             | SEL CHARTERS  | WITH TEME | PORARY CAPACITY TE | RANSFERS |  |  |  |  |  |  |  |
|                 | GTM   | PAN       | Reina de la Paz    | 2,100    |  |  |  |  |  |  |  |
| 2012            | PAN   | ECU       | María Del Mar A    | 2,304    |  |  |  |  |  |  |  |
|                 | PAN   | ECU       | Milena A           | 1,217    |  |  |  |  |  |  |  |
| 2013            | PAN   | ECU       | Delia              | 995      |  |  |  |  |  |  |  |
| 2016            | PAN   | ECU       | Connie Jean Two    | 742      |  |  |  |  |  |  |  |
| 2017            | GTM   | PAN       | La Peña            | 1,475    |  |  |  |  |  |  |  |
| 2022            | NIC   | ECU       | Maria Eulogia      | 1,217    |  |  |  |  |  |  |  |
| 2023            | PAN   | ECU       | Dalmacia C         | 454      |  |  |  |  |  |  |  |
| 2024            | PAN   | ECU       | El Marquez         | 486      |  |  |  |  |  |  |  |

#### 5. PERMANENT TRANSFERS OF CAPACITY

The following permanent transfers of capacity between CPCs, were recorded from 01 July 2023 through 30 June 2024:

| Permanent transfers of capacity between CPCs |              |               |                  |                  |  |  |  |  |  |  |  |
|--|--------------|---------------|------------------|------------------|--|--|--|--|--|--|--|
| Date recorded                                | Donor<br>CPC | Receiving CPC | Vessel / Company | Well volume (m³) |  |  |  |  |  |  |  |
| 8 May 2024                                   | Panama       | Ecuador       | Umiña            | 90               |  |  |  |  |  |  |  |

#### 6. SEALED WELLS

Resolution C-12-08, approved in June 2012, contains a protocol for sealing fish wells on purse-seine vessels. The following cases were recorded as of 30 June 2024:

| Vessel         | Flog | Cap   | pacity (m <sup>3</sup> ) | Well volume sealed or |  |  |
|----------------|------|-------|--------------------------|-----------------------|--|--|
| vessei         | Flag | Total | On Register              | disabled (m³)         |  |  |
| Bernardita B   | ECU  | 352   | 302                      | 50                    |  |  |
| Don Ramón      | ECU  | 1,720 | 1,571                    | 149                   |  |  |
| Elizabeth F    | ECU  | 755   | 623                      | 132                   |  |  |
| Ocean Lady     | ECU  | 270   | 238                      | 32                    |  |  |
| Rocio          | ECU  | 1,403 | 1,257                    | 146                   |  |  |
| Rosa F         | ECU  | 756   | 682                      | 74                    |  |  |
| Theresa Janene | MEX  | 1,269 | 944                      | 325                   |  |  |
| Tokiwa         | MEX  | 1,036 | 540                      | 496                   |  |  |
| Lady Jannette  | PAN  | 140   | 86                       | 54                    |  |  |
| Txopituna Dos  | PAN  | 1,881 | 1,781                    | 100                   |  |  |
| Atlántico      | VEN  | 1,321 | 993                      | 328                   |  |  |

Paragraph 5 of the resolution states that: "Any vessel with one or more of its wells sealed to reduce its well volume recorded on the Regional Vessel Register shall be required to carry an observer from the International Dolphin Conservation Program (IDCP) on board".

Consequently, all these vessels, including those smaller than Class 6, must pay the required fee for the AIDCP on-board observer program. This fee is assessed based on their total capacity, including sealed wells. In the case of vessels smaller than Class 6, Resolution AIDCP A-18-01 establishes that the amount of the fee "shall be the equivalent of the quota of a Class 6 vessel with the minimum capacity corresponding to its class(508 m<sup>3</sup>)".

Another requirement of Resolution C-12-08 is that "The well must be physically sealed in a tamper-proof manner, and in such a way that it does not communicate with any other space on the vessel and that its use for any other storage is prevented. The inspection and verification of the vessel's sealed wells for the first time shall be carried out by vessel's flag government".

Finally, it should be recalled that, to all purposes, including, for instance, closure periods, the reduction of the operative capacity of a vessel as a result of sealing wells does not change the vessel's capacity class, which is based on the total capacity of its wells, sealed or unsealed.

# 7. PENDING CASES OF CAPACITY REQUESTS, CLAIMS, AND DISPUTES

During the 88<sup>th</sup> IATTC meeting (extraordinary) in October 2014, a number of cases of capacity requests, claims, and disputes were identified and discussed, some of which have been resolved. Discussion on the pending cases continued during the 89<sup>th</sup> IATTC meeting in June-July 2015.

The pending cases are classified in the following four categories:

- a. Requests by coastal Members based on the footnote to Resolution C-02-03;
- b. Claims arising from disputes resulting from capacity transfers and/or differences in the implementation of Resolution C-02-03;

- c. Requests for new increases in capacity by EPO coastal and non-coastal countries.
- d. Other cases, including cases such as new vessel measurements, national administrative errors, etc.

The pending cases in each of these four categories are currently:

| Country         | <b>Cubic meters</b> | Details  |  |  |  |  |  |  |  |
|-----------------|---------------------|--|--|--|--|--|--|--|--|
| a. Requests ba  | sed on footnote in  | Resolution C-02-03   |  |  |  |  |  |  |  |
| Peru            | 5,851               | Part of 14,046 m <sup>3</sup> in footnote to Resolution C-02-03. Already granted 5,000 m <sup>3</sup> in 2014.   |  |  |  |  |  |  |  |
| Costa Rica      | 7,058               | Part of 16,422 m <sup>3</sup> in footnote to Resolution C-02-03.   |  |  |  |  |  |  |  |
| Colombia        | 4,772               | Part of 14,046 m <sup>3</sup> in footnote to Resolution C-02-03. Already granted 2,024 m <sup>3</sup> in 2013.   |  |  |  |  |  |  |  |
| SUBTOTAL        | 17,681              |  |  |  |  |  |  |  |  |
| b. Claims arisi | ng from disputes    |  |  |  |  |  |  |  |  |
| Bolivia         | 5,830               | Capacity which was allegedly transferred to Colombia without Bolivia's approval.   |  |  |  |  |  |  |  |
| Vanuatu         | 1,358               | For the vessel <i>Esmeralda C</i> , which was allegedly transferred to Panama without Vanuatu's approval.  |  |  |  |  |  |  |  |
| Venezuela       | 3,805               | From vessels Jane IV (1,250 m³), Baraka (1,287 m³) and Templario I (1,268 m³) request still pending for the future if the status of the tuna stocks allows it. All these vessels are on Regional Register under Panamanian flag. |  |  |  |  |  |  |  |
| SUBTOTAL        | 10,993              |  |  |  |  |  |  |  |  |
| c. New request  | ts                  |  |  |  |  |  |  |  |  |
| El Salvador     | 2,105               | Special needs and requirements of developing coastal countries   |  |  |  |  |  |  |  |
| Nicaragua       | 4,200               |  |  |  |  |  |  |  |  |
| Honduras        | 3,000               |  |  |  |  |  |  |  |  |
| Guatemala       | 9,000               | · · · · · · · · · · · · · · · · · · ·  |  |  |  |  |  |  |  |
| Mexico          | 2,000               | · · · · · · · · · · · · · · · · · · ·  |  |  |  |  |  |  |  |
| SUBTOTAL        | 20,305              |  |  |  |  |  |  |  |  |
| d. Other cases  |                     |  |  |  |  |  |  |  |  |
| Ecuador         | 220                 | Eli  |  |  |  |  |  |  |  |
|                 | 176                 | Ljubica M.   |  |  |  |  |  |  |  |
|                 | 908                 | Monteneme  |  |  |  |  |  |  |  |
|                 | 1,534               | Isabel IV (never on the Regional Register)   |  |  |  |  |  |  |  |
|                 | 850                 | Victoria A. (never on the Regional Register)   |  |  |  |  |  |  |  |
| SUBTOTAL        | 3,688               |  |  |  |  |  |  |  |  |
| TOTAL           | 52,667              |  |  |  |  |  |  |  |  |

The current status of the discussion of these pending cases is reflected in the minutes of the  $88^{th}$  (extraordinary) and  $89^{th}$  meetings of the IATTC.

#### **GLOSSARY OF TERMS**

- 1. Active capacity. See Resolution <u>C-02-03</u>. The total well volume, in cubic meters, of vessels that are on the IATTC Regional Register and are authorized to fish in the EPO. May change status to inactive at any time during the year.
- 2. Available capacity. The total well volume, in cubic meters, that a Member or Cooperating Non-Member (both referred to as "CPC") has available for allocation to vessels as the result of: (a) vessels being removed from the Regional Register; (b) changes of flag, considering that a CPC may choose to retain for future use the right to the capacity of a vessel that is transferred to another flag; (c) non-allocated residuals from transfers and movements of vessels on the Regional Register; (d) the capacity limits specified in paragraph 10 of Resolution C-02-03.
- **3.** Inactive/sunk capacity. See Resolution <u>C-02-03</u>. The total well volume, in cubic meters, of (a) vessels that are on the IATTC Regional Register and have declared that they will not fish during a given year but retain the right to become active provided they remain on the Regional Register, or (b) vessels that have sunk. May change status to active only at the beginning of the year.
- **4. Operative capacity**. Operative capacity of purse seine vessels for a completed year is the total cubic meter well volume of all vessels which fished for tuna in the EPO in that year<sup>2</sup>. The following criteria apply in the selection of operative capacity for a completed year:
  - Vessels include those that made at least one EPO set with catch during that year.
  - Only one quarter of the capacity of vessels operating under the special allowance in paragraph 12 of resolution C-02-03 is added to the total, since these vessels will have effectively fished for approximately one quarter of the fishing year only.
  - If a vessel's capacity changes during the completed year, then the capacity at the end of the year is used. The calculation of operative capacity for a year that has not yet been completed is the same as that for a completed year, except it is based on the vessels that are expected to fish, which include vessels that made at least one EPO set with catch during that year or during the previous year.
- 5. Potential total capacity. The sum of active capacity, inactive/sunk capacity, and available capacity. The total well volume, in cubic meters, that would be operating in the EPO if all CPCs activated all their vessels and used all their available capacity (including inactive/sunk capacity) to bring new vessels into the fishery.
- **6.** Capacity disputes. Disputes that arise when a vessel changes flag, and both the vessel's previous flag CPC and its new flag CPC claim the vessel's capacity as their own.
- 7. Vessels authorized to fish. The vessels currently listed on the Regional Vessel Register as active pursuant to Resolution C-14-01.
- 8. Total capacity of vessel. The total well volume of a vessel, including the volume of any sealed wells.
- **9. Sealed well.** Any space aboard a vessel, intended for freezing, maintenance, or storage of fish, access to which has been blocked to prevent its use for these purposes.
- **10.** Capacity loans or concessions. Temporary loan or concession by a CPC of an available well volume capacity for use by a vessel of another CPC's flag.
- 11. Vessel charters with temporary capacity transfer. Vessel charters which include the temporary transfer of the capacity of the chartered vessel from the CPC granting the charter ("chartering CPC") to the receiving CPC ("charterer CPC").

<sup>&</sup>lt;sup>2</sup> See tables 1 and 2ab in Appendix 3

# Appendix 2

#### Utilization of capacity in the calculation of the number of days of closure

The tropical tunas are managed following a harvest strategy based on fishing at the level that corresponds to maximum sustainable yield ( $F_{MSY}$ ). The stock assessments calculate the Fmultiplier, which is the fishing mortality corresponding to  $F_{MSY}$  relative to the average fishing mortality over the last three years in the stock assessment, which is usually the three years prior to the year in which management is being decided for the following year (i.e. there is a two-year lag). The F multiplier is the amount that fishing mortality needs to be adjusted to achieve MSY. The three-year average is used because fishing mortality can fluctuate from year to year due to factors unrelated to fishing effort and the estimates of fishing mortality for the final year in the assessment are uncertain.

The F multipier is adjusted for increases in capacity. Since the F multiper is based on the average of the last three years in the assessment, the increase in capacity is calculated based on the average capacity for the same three years. The current capacity is based on the most recent estimate of capacity for the current year. For these calculations, the operative capacity as described above is used.

Adjusted F multiplier = F multiplier / (current capacity / average capacity)

The number of days of closure is calculated based on multiplying the current days open by the adjusted F multiplier with appropriate adjustments for the *corralito*.

# Appendix 3

TABLE 1. Numbers and well volumes, in cubic meters, of purse-seine and pole-and line vessels of the EPO tuna fleet. The data for 2022 and 2023 are preliminary. (\* The data provided for pole and line vessels for these years are reported under total catch because there is no information available by individual vessel; therefore, the total number of LP vessels and well volume is not available.)

TABLA 1. Número y volumen de bodega, en metros cúbicos, de buques cerqueros y cañeros de la flota atunera del OPO. Los datos de 2022 and 2023 son preliminares. (\* Los datos de buques cañeros de estos años se presentan combinados bajo captura total porque no se dispone de información por buque individual; por lo tanto, no se dispone del número total de buques cañeros ni del volumen de bodega.)

|      | P   | S                      |     | LP      |     | Total                  |
|------|-----|------------------------|-----|---------|-----|------------------------|
|      |     |                        |     | Vol.    |     |                        |
|      | No. | Vol. (m <sup>3</sup> ) | No. | $(m^3)$ | No. | Vol. (m <sup>3</sup> ) |
| 1991 | 152 | 124,062                | 22  | 1,997   | 174 | 126,059                |
| 1992 | 158 | 116,619                | 20  | 1,807   | 178 | 118,426                |
| 1993 | 151 | 117,593                | 15  | 1,550   | 166 | 119,143                |
| 1994 | 166 | 120,726                | 20  | 1,726   | 186 | 122,452                |
| 1995 | 175 | 123,798                | 20  | 1,784   | 195 | 125,582                |
| 1996 | 180 | 130,774                | 17  | 1,646   | 197 | 132,420                |
| 1997 | 194 | 147,926                | 23  | 2,127   | 217 | 150,053                |
| 1998 | 202 | 164,956                | 22  | 2,216   | 224 | 167,172                |
| 1999 | 208 | 178,724                | 14  | 1,642   | 222 | 180,366                |
| 2000 | 205 | 180,679                | 12  | 1,220   | 217 | 181,899                |
| 2001 | 204 | 189,088                | 10  | 1,259   | 214 | 190,347                |
| 2002 | 218 | 199,870                | 6   | 921     | 224 | 200,791                |
| 2003 | 214 | 202,381                | 3   | 338     | 217 | 202,719                |
| 2004 | 218 | 206,473                | 3   | 338     | 221 | 206,811                |
| 2005 | 220 | 212,419                | 4   | 498     | 224 | 212,917                |
| 2006 | 225 | 225,166                | 4   | 498     | 229 | 225,664                |
| 2007 | 227 | 225,359                | 4   | 380     | 231 | 225,739                |
| 2008 | 219 | 223,804                | 4   | 380     | 223 | 224,184                |
| 2009 | 221 | 224,632                | 4   | 380     | 225 | 225,012                |
| 2010 | 202 | 210,025                | 3   | 255     | 205 | 210,280                |
| 2011 | 208 | 213,237                | 3   | 339     | 211 | 213,576                |
| 2012 | 209 | 217,687                | 4   | 464     | 213 | 218,151                |
| 2013 | 203 | 212,087                | 3   | 268     | 206 | 212,355                |
| 2014 | 226 | 230,379                | 2   | 226     | 228 | 230,605                |
| 2015 | 244 | 248,428                | 1   | 125     | 245 | 248,553                |
| 2016 | 250 | 261,474                | *   | *       | 250 | 261,474                |
| 2017 | 254 | 263,018                | *   | *       | 254 | 263,018                |
| 2018 | 261 | 263,666                | *   | *       | 261 | 263,666                |
| 2019 | 261 | 265,085                | *   | *       | 261 | 265,085                |
| 2020 | 242 | 241,331                | *   | *       | 242 | 241,331                |
| 2021 | 236 | 253,323                | *   | *       | 236 | 253,323                |
| 2022 | 239 | 253,071                | *   | *       | 239 | 253,071                |
| 2023 | 246 | 261,296                | *   | *       | 246 | 261,296                |

**TABLE 2a.** Well volume (cubic meters) of purse-seine (PS) vessels that fished in the EPO, by year and flag. <sup>3</sup> **TABLA 2a.** Volumen de bodega (metros cúbicos) de buques cerqueros (PS) que pescaron en el OPO, por año y bandera. <sup>4</sup>

|             |     | 2002    | 2003    | 2004    | 2005    | 2006    | 2007    | 2008    | 2009    | 2010    | 2011    | 2012    | 2013    | 2014    | 2015    | 2016    | 2017    | 2018    | 2019    | 2020    | 2021    | 2022    | 2023    |
|-------------|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|             |     |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |         |
| BLZ         | PS  | 1,018   | 486     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| BOL         | PS  | 7,910   | 7,910   | 4,742   | 0       | 222     | 222     | 222     | 222     | 222     | 222     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| COL         | PS  | 7,397   | 7,259   | 14,148  | 14,439  | 14,439  | 14,689  | 15,110  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,860  | 14,590  | 14,590  |
| ECU         | PS  | 47,880  | 47,991  | 51,784  | 55,075  | 58,580  | 59,517  | 60,519  | 60,096  | 60,840  | 70,014  | 79,391  | 80,611  | 88,957  | 91,651  | 92,832  | 92,391  | 91,658  | 91,057  | 87,210  | 82,234  | 78,820  | 85,275  |
| EU<br>(ESP) | PS  | 12,177  | 12,177  | 8,859   | 6,955   | 6,955   | 6,955   | 10,116  | 10,116  | 10,116  | 10,116  | 10,116  | 10,116  | 10,116  | 10,116  | 4,120   | 4,120   | 4,120   | 4,120   | 4,120   | 7,281   | 7,281   | 9,330   |
| GTM         | PS  | 7,640   | 3,820   | 3,415   | 1,475   | 1,475   | 1,475   | 3,056   | 3,575   | 4,819   | 4,819   | 3,575   | 1,475   | 1,475   | 1,475   | 1,475   | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| HND         | PS  | 1,798   | 1,798   | 2,810   | 2,729   | 2,729   | 2,870   | 1,559   | 1,559   | 1,559   | 547     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| MEX         | PS  | 47,832  | 50,745  | 52,503  | 55,536  | 55,046  | 57,859  | 52,920  | 50,254  | 45,224  | 47,274  | 48,054  | 46,062  | 54,206  | 57,502  | 60,146  | 60,551  | 62,659  | 61,146  | 58,854  | 61,072  | 61,880  | 63,389  |
| NIC         | PS  | 1,229   | 2,018   | 3,895   | 8,060   | 8,308   | 6,023   | 6,023   | 6,353   | 6,353   | 9,685   | 9,966   | 9,966   | 8,478   | 8,478   | 8,478   | 10,648  | 9,066   | 9,066   | 6,099   | 6,099   | 7,316   | 6,099   |
| PAN         | PS  | 11,706  | 20,754  | 25,531  | 33,595  | 35,007  | 40,046  | 36,711  | 31,225  | 32,599  | 25,443  | 17,976  | 19,251  | 19,865  | 19,794  | 21,174  | 22,649  | 22,361  | 23,719  | 25,564  | 27,390  | 28,865  | 30,035  |
| PER         | PS  | 1,022   | 0       | 0       | 0       | 0       | 0       | 1,000   | 1,000   | 458     | 0       | 0       | 599     | 1,437   | 3,268   | 3,019   | 4,325   | 4,175   | 4,767   | 4,818   | 2,475   | 0       | 1,143   |
| SLV         | PS  | 5,377   | 5,377   | 5,377   | 6,324   | 8,184   | 7,415   | 7,415   | 7,415   | 7,415   | 7,892   | 7,892   | 7,892   | 7,892   | 4,473   | 4,473   | 4,473   | 6,202   | 6,202   | 6,202   | 6,202   | 6,202   | 6,202   |
| UNK         | PS  | 695     | 2,073   | 0       | 222     | 0       | 494     | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| USA         | PS  | 13,318  | 8,665   | 9,653   | 1,487   | 1,763   | 3,395   | 292     | 5,952   | 0       | 4,275   | 3,735   | 0       | 2,203   | 17,219  | 30,619  | 30,677  | 28,201  | 30,367  | 19,174  | 24,152  | 26,559  | 25,386  |
| VEN         | PS  | 30,784  | 32,699  | 29,961  | 33,839  | 30,788  | 29,684  | 27,083  | 29,403  | 22,747  | 24,007  | 22,862  | 20,890  | 20,890  | 19,592  | 21,448  | 19,066  | 20,364  | 19,781  | 16,986  | 21,558  | 21,558  | 19,847  |
| VUT         | PS  | 5,213   | 7,467   | 5,082   | 2,163   | 2,163   | 3,609   | 3,609   | 3,609   | 3,609   | 3,609   | 1,360   | 1,360   | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       |
| То          | tal | 199,870 | 202,381 | 206,473 | 212,419 | 225,166 | 225,359 | 223,804 | 224,632 | 210,025 | 213,237 | 217,687 | 212,087 | 230,379 | 248,428 | 261,474 | 263,018 | 263,666 | 265,085 | 241,331 | 253,323 | 253,071 | 261,296 |

<sup>&</sup>lt;sup>3</sup> The amount and numbers provided are estimates. Moreover, each vessel is included in the total for each flag under which it fished during the year, but is included only once in the "Grand total"; therefore this grand total may not equal the sums of the individual flags.

<sup>&</sup>lt;sup>4</sup> Los montos y números indicados son estimaciones. Además, se incluye cada buque en los totales de cada bandera bajo la cual pescó durante el año, pero solamente una vez en el "Total general"; por consiguiente, los totales generales no equivalen necesariamente a las suma de las banderas individuales.

**TABLE 2b.** Numbers of purse-seine (PS) vessels that fished in the EPO, by year and flag.<sup>5</sup> **TABLA 2b.** Número de buques cerqueros (PS) que pescaron en el OPO, por año y bandera.<sup>5</sup>

|             | ·  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 |
|-------------|----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| BLZ         | PS | 2    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| BOL         | PS | 10   | 10   | 7    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| COL         | PS | 10   | 9    | 13   | 13   | 13   | 14   | 15   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 14   | 13   | 13   |
| ECU         | PS | 76   | 74   | 80   | 81   | 85   | 83   | 84   | 85   | 86   | 96   | 103  | 102  | 111  | 112  | 114  | 114  | 113  | 114  | 109  | 106  | 103  | 109  |
| EU<br>(ESP) | PS | 5    | 5    | 4    | 3    | 3    | 3    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 4    |
| GTM         | PS | 4    | 2    | 2    | 1    | 1    | 1    | 2    | 2    | 3    | 3    | 2    | 1    | 1    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| HND         | PS | 2    | 2    | 3    | 3    | 3    | 4    | 2    | 2    | 2    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| MEX         | PS | 56   | 58   | 59   | 58   | 56   | 58   | 51   | 46   | 39   | 41   | 42   | 40   | 45   | 47   | 49   | 51   | 53   | 51   | 48   | 51   | 52   | 53   |
| NIC         | PS | 1    | 2    | 3    | 6    | 7    | 5    | 5    | 5    | 5    | 7    | 7    | 7    | 6    | 6    | 6    | 7    | 6    | 6    | 4    | 4    | 5    | 4    |
| PAN         | PS | 10   | 16   | 21   | 26   | 26   | 29   | 27   | 24   | 24   | 19   | 13   | 14   | 14   | 14   | 15   | 16   | 16   | 17   | 19   | 19   | 20   | 21   |
| PER         | PS | 1    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 1    | 0    | 0    | 2    | 3    | 7    | 6    | 9    | 9    | 11   | 10   | 4    | 0    | 2    |
| SLV         | PS | 3    | 3    | 3    | 4    | 5    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 3    |
| UNK         | PS | 2    | 2    | 0    | 1    | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| USA         | PS | 11   | 8    | 8    | 3    | 2    | 4    | 2    | 10   | 0    | 5    | 3    | 0    | 9    | 23   | 27   | 27   | 31   | 29   | 23   | 17   | 25   | 23   |
| VEN         | PS | 24   | 25   | 23   | 26   | 22   | 22   | 19   | 21   | 17   | 18   | 17   | 15   | 15   | 14   | 15   | 13   | 14   | 14   | 12   | 15   | 15   | 14   |
| VUT         | PS | 5    | 6    | 4    | 2    | 2    | 3    | 3    | 3    | 3    | 3    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Total       |    | 218  | 214  | 218  | 220  | 225  | 227  | 219  | 221  | 202  | 208  | 209  | 203  | 226  | 244  | 250  | 254  | 261  | 261  | 242  | 236  | 239  | 246  |

<sup>&</sup>lt;sup>5</sup> The amount and numbers provided are estimates. Moreover, each vessel is included in the total for each flag under which it fished during the year, but is included only once in the "Grand total"; therefore this grand total may not equal the sums of the individual flags.

<sup>&</sup>lt;sup>5</sup> Los montos y números indicados son estimaciones. Además, se incluye cada buque en los totales de cada bandera bajo la cual pescó durante el año, pero solamente una vez en el "Total general"; por consiguiente, los totales generales no equivalen necesariamente a las sumas de las banderas individuales.

Appendix 4

Comparison of estimated operating capacity to actual operating capacity (as determined when the data for the whole year is available).

| Year | Date     | Report             | Estimated capacity (m³) | Actual capacity (m <sup>3</sup> ) | Estimation error<br>(Estimated/Actual) |  |  |
|------|----------|--------------------|-------------------------|-----------------------------------|--|--|--|
| 2012 | 8 May    | IATTC-83-05c       | 214,422                 | 217,687                           | 0.99                                   |  |  |
| 2013 | 7 April  | IATTC-85-03d       | 214,979                 | 212,087                           | 1.01                                   |  |  |
| 2014 | 2 May    | IATTC-87-03d       | 215,608                 | 230,379                           | 0.94                                   |  |  |
| 2015 | 19 April | IATTC-89-04d       | 236,089                 | 248,428                           | 0.95                                   |  |  |
| 2016 | 17 April | IATTC-90-04d (REV) | 255,972                 | 261,474                           | 0.98                                   |  |  |
| 2017 | 30 April | SAC-08-11          | 263,283                 | 263,018                           | 1.00                                   |  |  |
| 2018 | 25 March | SAC-09-15          | 260,289                 | 263,666                           | 0.99                                   |  |  |
| 2019 | 14 April | SAC-10-19          | 263,858                 | 265,085                           | 1.00                                   |  |  |
| 2020 | 10 May   | SAC-11-15          | 262,213                 | 241,331                           | 1.09                                   |  |  |
| 2021 | 10 May   | SAC-12-16          | 262,213                 | 253,323                           | 1.04                                   |  |  |
| 2022 | 15 May   | SAC-13-14          | 254,340                 | 253,071                           | 1.01                                   |  |  |
| 2023 | 14 May   | SAC-14-14          | 255,872                 | 261,296                           | 0.98                                   |  |  |
| 2024 | 9 June   | SAC-15-13          | 264,004                 |                                   |  |  |  |