

INTER-AMERICAN TROPICAL TUNA COMMISSION
PERMANENT WORKING GROUP ON FLEET CAPACITY
23RD MEETING
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DOCUMENT CAP-23 INF-C

POTENTIAL RESOLUTION FOR THE *TRANSFERABLE DAY CREDIT SCHEME* AS PART OF A *PLAN OF ACTION TO MANAGE FLEET CAPACITY*

The Parties to the Inter-American Tropical Tuna Commission (IATTC): Aware that the issue of excess fishing capacity is of concern worldwide and is the subject of an International Plan of Action developed by the United Nations Food and Agriculture Organization;

Understanding that excess fishing capacity in a region makes it more difficult for governments to agree on and implement effective conservation and management measures for the fisheries of that region;

Concerned that purse-seine fishing capacity in the eastern Pacific Ocean (EPO) has been increasing in recent years;

Believing that it is important to limit fishing capacity in the EPO in order to help ensure that the tuna fisheries in the region are conducted at a sustainable level;

Aware of the importance of tuna fishing to the economic development of the Parties;
Committed to giving full effect to the relevant rules of international law, as reflected in the United Nations Law of the Sea Convention;

Recalling the resolutions to limit the capacity of the tuna purse-seine fleet in the EPO approved by the IATTC in Resolution C-02-03;

Seeking to address the problem of excess capacity in the tuna purse-seine fleet operating in the EPO by limiting such capacity to a level which, in harmony with other agreed management measures and projected and actual levels of catch, will ensure that tuna fisheries in the region are conducted at a sustainable level;

Have agreed as follows:

1. For the purposes of this Resolution, the EPO is defined as the area bounded by the coastline of the American continents, the 40° North parallel, the 150° West meridian and the 40° South parallel.
2. For the purposes of this Resolution, and without setting any precedent, “participant” means Parties to the IATTC, and States and regional economic integration organizations (REIOs), and fishing entities that have applied for membership of the Commission or that cooperate with the management and conservation measures adopted by the Commission. The Commission shall determine which States, REIOs and fishing entities are considered to be cooperating with such management and conservation measures.
3. To finalize and adopt, as soon as possible, *A Plan of Action to Manage Fleet Capacity*. Such a Plan shall take into account the right of coastal States and other States with a longstanding and

significant interest in the tuna fisheries of the EPO to develop and maintain their own tuna fishing industries.

4. To implement the Plan in two phases. The first phase is the *Transferable Day Credit Scheme* that introduces an incentive-based approach to conserving and managing the fishery to realign the incentives from “race to fish” and “race to invest” to incentives more closely aligned with economic efficiency in the fishery, and creates the requisite preconditions for a successful vessel buyback program. Details of the *Transferable Day Credit Scheme* are developed in this Resolution.
5. To eventually implement a second phase through a future vessel buy-back program.
6. To base the *Transferable Day Credit Scheme* upon the provisions of Resolution C-02-03, Resolution on the Capacity of the Tuna Fleet Operating in the Eastern Pacific Ocean (Revised) adoption at the 69th meeting of the IATTC in Manzanillo (Mexico) 26-28 June 2002. Features of the *Transferable Day Credit Scheme* deriving from this Resolution include the following. The foundation of the *Transferable Day Credit Scheme* is the Regional Vessel Register. Every CPC has the right to participate through its registered capacity. Vessel-level registration (and allocation) is through CPCs and then to their vessels. Even when vessels are part of a multi-vessel company, the registered capacity is linked to individual vessels. A multi-vessel company could consolidate the allocated days limit and reallocate the limit (and subsequent credits) among its own vessels.
7. The *Transferable Day Credit Scheme* recognizes two rights: the CPC Flag State right and the eligible vessel’s capacity (from Resolution C-02-03) which in turn establishes the right to use days but does not establish a property right to days per se (including a specific number of days or specific Party Allowable Effort Share).
8. To eliminate the 72-day time-area closure and replace it with the *Transferable Day Credit Scheme*.
9. For the IATTC Secretariat to estimate a Total Allowable Effort (TAE), which ensures that the *Transferable Day Credit Scheme* meets biological sustainability for yellowfin, bigeye, and skipjack tunas.
10. To allocate days to the CPCs and their eligible vessels in the form of Party Allowable Effort Shares (PAES), which are shares or proportions of the TAE allocated to each eligible vessel through its CPC. Each vessel’s PAES when multiplied by the TAE gives each vessel its Party Allowable Effort (PAE), i.e. days, for the Management Year. Changes in the TAE then automatically lead to changes in each holder’s PAE (days) that can be applied in each time period.
11. To implement the *Transferable Day Credit Scheme* as a three-year pilot program consistent with the IATTC regulatory cycle and thereby minimize risk and uncertainty, learn from limitations, and to maintain fleet industry structure (number of vessels, capacity). After three years, the pilot *Transferable Day Credit Scheme’s* performance is evaluated to make design changes or to revert back to existing features of the 72-day time-area closure. No registered capacity is lost during the initial 3-year trial period of the scheme, except if voluntarily withdrawn. Thus: (i) No complete transfer of days between vessels (i.e. no vessels exit from the Scheme), (ii) No carry-forward of unused PAE (credits), etc. (iii) No carry-backward of unused PAE (credits) to retroactively cover a vessel’s excess use of PAE (days), (iv) No granting of CPC capacity claims, (v) No addressing of small fish issues.
12. Because the *Transferable Day Credit Scheme* is a pilot, during this pilot phase, days are not distinguished on the basis of: (i) vessels holding a Dolphin Mortality Limit or not and (ii) capacity size class. This creates one pool of PAE and PAES and confers administrative simplicity and costs, and does not face issues such as differences in PAE’ fishing mortality, size of fish, and other factors

between vessels with and without a Dolphin Mortality Limit or of different capacity size classes. Exchange rates for transfers of credits between vessels are not required. At the end of the pilot, the *Transferable Day Credit Scheme* can be differentiated by Dolphin Mortality Limit or capacity size classes if so desired.

13. To retain other limits to fishing that are required to achieve overall ecosystem sustainability and conservation of biodiversity, such as bycatch.
14. Days at sea (24 hours per day) are the proposed unit of effort because they are the simplest and least costly to monitor and control (they are already reported to the IATTC). Portions of days at sea as the unit of effort, such as time actually spent fishing as fractions of a day, open up questions of definitions of fishing, difficulties in monitoring portions of days, etc. Days at sea, whether the vessel is in transit, searching for fish, or actually fishing, provide a single homogenous unit of effort.
15. Any vessel cannot start operating in the Management Year without a previous allocation of PAE, which shall be officially registered. Details remain to be determined (how, where, etc. to register), but Dolphin Mortality Limits provide an example.
16. To allow the unused portion of a vessel's annual PAE, called a credit, to be transferred within a CPC Flag State to other vessels within the same company or to other companies and even across vessels of different CPC Flag States following the same or similar procedures to those used to manage capacity under Resolution C-02-03. PAE allocated to individual vessels within the same multi-vessel company can be pooled and reallocated as required by the company to maximize expected catch, revenue, or profit as the company sees fit and to reduce uncertainty. Vessels will no longer have to "race to fish" during the open period under the current day closure system.
17. Transferable vessel PAE credits are an individual vessel limit for days supplemented with the option to compensate the excess-use of days for one vessel by under-use of days (credits) for another vessel, and are not property rights.
18. Credits, denominated in units of homogenous 24-hour days, are created *gratis* when the vessel reduces days (at sea) below the required level in a certifiable and verifiable way. The credit or unused portion of the vessel's annual days allocation for that year are not transferrable forward to either the following year or the previous year (to cover catch beyond the previous year's limits). A credit buyer or receiver only needs credits to offset catch that exceeds the buyer's catch quota or limit.
19. Vessels that fish longer than their allocated PAE and fail to obtain credit PAE from other vessels should face a direct penalty is a fixed fine of a reduced number of days the vessel is allocated the following year. The size of this type of penalty remains to be determined, but there is no: (i) allowance for foregone growth of the fish stocks; (ii) accounting for discounting future catches, costs, revenues, and profits that can incentivize using days beyond the quota and not obtaining credit days; (iii) any disincentive created by a larger than directly proportional fine in the following year.
20. To allow for a TAE Allocation Reserve. Any portion of the TAE not allocated to vessels and held in a reserve for new vessels or other specified reasons that can be released at some agreed upon time during the Management Year. Any unused days in the TAE allocation reserve in the last 30 days of the Management Year will be cancelled and cannot be carried forward to the next Management Year. This implies that there is no carry-forward (transfer) of credits (unused PAE) from one Management Year to the next Management Year. It also implies no carry-backwards of

credits (unused PAE) from one Management Year to the previous Management Year, for instance to cover overages. This reserve of days can be allocated in a number of ways, including: (i) following the PAES formula, (ii) equal amounts to all eligible vessels, (iii) to CPCs with some agreed-upon special circumstance such as reactivation from inactive to active, (iv) to vessels that satisfy criteria in a credit-reward program.

21. The US distant water purse seine fleet can be classified into at least four categories with corresponding options for the *Transferable Day Credit Scheme*. The first category is 32 US vessels under Paragraph 12 of Resolution C-02-03 that are currently allowed a single trip not to exceed 90 days. These vessels can be allowed: (i) the current single trip not to exceed 90 days, (ii) X days < 90 days and which cannot be transferred and no more than 32 vessels can hold days, (iii) the X days < 90 days are a maximum and if TAE falls these X days are proportionately reduced (so treated like everybody else), (iv) If the TAE increases these days are proportionately increased according to the rest of the eligible vessels but cannot exceed 90 days, (v) any unused PAE (credits) within a Management Year cannot be transferred and are cancelled. The second category is vessels that are active in Regional Vessel Register but the EPO is secondary, and they are treated the same as all other eligible vessels. The third category is vessels that are full-time in EPO and on the Regional Vessel Register, and they are treated the same as all other eligible vessels. The fourth category is vessels that do not fish in the EPO as of the beginning date of the Scheme, and they are excluded from the program, but they can apply like any new vessels.
22. To establish enforcement through readily enforceable penalties and fines because vessels should not exceed their PAE during a Management Year not covered by credits. PAE must be balanced prior to start of new Management Year. A penalty creates a disincentive. Thus, if a vessel exceeds its PAE (no threshold) for a Management Year, that vessel's PAE for the following Management Year can be adjusted by a penalty if the vessel cannot find credits to cover their overage during the Management Year. During the pilot phase no retroactive covering of overages is allowed. The size and nature of the penalty remain to be determined.
23. Options for penalties are as follows. The simplest and most direct penalty is a fixed fine of a reduced number of PAE the vessel is allocated the following Management Year. An alternative might be a differentiated penalty, such as a step function that creates a graduated penalty. Such a graduating penalty incentivizes compliance but creates additional program complexity and costs.
24. Vessels are given a limited period of time to obtain the necessary credits from another source if the vessel does not have valid PAE at the end of the Management Year. The question is how much time? Retroactive balancing of PAE from a new Management Year to a previous one is disallowed, and creates a need to find credits prior to the end of Management Year, not ex-post. Use of penalties and fines does not require the development of an adjudication process to assess whether in fact infringements have been committed. Information on day leaving harbor and returning makes this clear.
25. Financing is required for *Transferable Day Credit Scheme* All CPCs shall contribute to the expenses necessary to achieve the objectives of this scheme, through the establishment and collection of vessel fees or some other method to financing the scheme, the level of which shall be determined by the Commission, without prejudice to other voluntary financial contributions. Any vessel that is in arrears shall not be eligible to fish in a Management Year until that vessel's assessed contribution is paid in full. An open question is whether this payment is required prior to the Management Year or following X months after the beginning of the Management Year.

26. The *Transferable Day Credit Scheme* will be administrated by the IATTC Secretariat with financing as noted in 25.
27. The *Transferable Day Credit Scheme* requires implementation at the national level. Each CPC shall adopt and report to the Commission the necessary measures to ensure the implementation of and compliance with this scheme including, as appropriate, the adoption of relevant laws and regulations.
28. The *Transferable Day Credit Scheme* respects the rights of States. No provision of the *Transferable Day Credit Scheme* may be interpreted in such a way as to prejudice or undermine the sovereignty, sovereign rights, or jurisdiction exercised by a State in accordance with international law, as well as its position or views with regards to matters relating to the Law of the Sea.
29. Settlement of disputes is not an issue because dispute settlement is already covered by the Antigua Convention.
30. The *Transferable Day Credit Scheme* requires monitoring, control, and surveillance. The IATTC staff already monitors departures and returns of vessels. The CPCs shall report in real time to the Secretariat the information on the departure and return of vessels under their jurisdiction. Vessels entering the EPO from the WCPO shall report in real time to the Secretariat their entry into the EPO. For verification purposes, any vessel in the EPO might be required to provide their VMS information to the Secretariat.
31. The *Transferable Day Credit Scheme* allows for new entrants through eligibility and allocation of PAES. New entrants without relevant historical days and no current allocated PAES are allocated days on the basis of average days/m³ of capacity. All vessels with assigned capacity are entitled to request and receive PAES and PAE through the following options: (i) Accommodate these vessels within the existing PAES allocation, either through existing members, voluntarily relinquishing limit, or through exchange, such as limit or credit markets, to new participants, (ii) set aside a portion of the TAE for future use by new members or the interests of coastal States, allowing them to rent limit days from the Commission, (iii) Receive PAES and PAE on the basis of days/m³ of capacity, (iv) Set aside and distinguish between the limit of a coastal CPC that can be fished in the marine waters of its jurisdiction and the limit of any CPC that can be fished on the high seas, (v) Require new distant-water entrants to rely upon transfer or trade of both capacity (and access to the Regional Vessel Register) and day limits to secure entry to the fishery (This option is consistent with Resolution C-02-03 and the Regional Vessel Register as the foundation for the Scheme), (vi) Restrict the duration of limits so that some limits expire in each year and are therefore always available every year for reallocation in some manner, (vii) Allow buybacks of existing capacity and hence any accompanying limits that are either reallocated or permanently expired to make room for expansion by others, (viii) Equi-proportional reductions in limit days and the relinquished limit days are then transferred to the new entrants.
32. As with DMLs under the AIDCP, after a specified date of each Management Year, any PAE that the IATTC Director determines will not be utilized or which has otherwise been forfeited could be reallocated to the vessels. The Director could reallocate such additional PAE among qualified vessels, subject to any limitations and conditions adopted.
33. Allocation of PAES includes the following. (i) PAES are allocated to existing eligible vessels through CPCs based on one of two formulae discussed below. (ii) Newly eligible vessels receive days from vessels they replace on the Regional Vessel Register or based upon allocated PAES of the closest size of existing eligible vessels on a Flag CPC using the PAES allocation formula. (iii) CPCs with newly eligible vessels that currently do not have PAES and PAE receive PAES and PAE based upon

the average capacity of the closest size of existing eligible vessels of the full fleet. (iv) For reactivated vessels, PAES are allocated to vessels through their CPCs based on average days per m³ of well capacity of all other eligible vessels in that size class that are active on the Regional Vessel Register.

34. Two PAES allocation formulae are recommended for further consideration due to their superiority in creating economic efficiency (daily vessel operating profit) and achieving an equitable distribution of PAES among CPCs for their eligible vessels. Both PAES allocation give fair shares because of the IATTC decision-making process (unanimous voting or otherwise consensual decision-making).
35. One of the two recommended fair PAES allocation formula is “Best X of Y” based upon each vessel’s historical days during 2014-2018 and chosen as: (i) Out of the most recent 5-year effort history, each vessel is allocated an average of its best 3 years of effort out of the most recent 5 years the vessel has been active on the regional vessel register. (ii) The average 3 out of the most recent 4 years of effort if a vessel has only been active on the regional vessel register 4 out of the past 5 years. (iii) The average 2 out of the most recent 3 years of effort if a vessel has only been active on the regional vessel register 3 out of the past 5 years. (iv) The average 1 out of the most recent 2 years of effort if a vessel has only been active on the regional vessel register 2 out of the past 5 years. (v) A vessel active on the regional vessel register for 1 out of the past 5 years receives its effort for that one year.
36. The second option for the PAES allocation formula is “Hybrid”. A vessel can choose whichever gives a larger PAES between “Best X of Y” and “Days/m³ of Capacity, in which days are directly proportional to a vessel’s m³ of capacity. This Hybrid formula compromises between historical Days and Capacity for PAES and gives a fair share because vessels voluntarily choose.
37. PAES are calculated as follows:

$$PAES_i = \frac{Days_i}{\sum_{i=1}^N Days_i}$$

where $i = Vessel\ i$, $N =$ number of vessels, $Days_i =$ days calculated using either “Best X of Y” or “Hybrid” allocation formulae, and $0 < PAES_i < 1, \sum_{i=1}^N PAES_i = 1$.

38. The following are formal definitions for *Transferable Day Credit Scheme*:

Days

- Definition: *Any calendar day, or part of a calendar day, in a Management Year during with a purse seine vessel is in the waters under the jurisdiction of the IATTC outside of a port*
 - i.e. days-at-sea.
- Time spent by a vessel within a port of a Contracting Party to the Convention (CPC) shall not be considered a day unless part of the day was spent out of the port, other than a direct port-to-port transit without any fishing activity.
- Potential exemptions include *force majeure* for certified vessel breakdowns and for emergencies involving the health and safety of the crew or the safety of a vessel or when a vessel is solely in transit from one port to another or from or to a fishing area outside of the EPO.

- When vessels transit from one port to another follow the similar procedure adopted in conservation resolutions, last one is C-17-02.

Total Allowable Effort (TAE) and Days

- Defined in terms of fishing mortality at FMSY.
- MSY basis
 - Current fishing mortality at age
- Which species?
 - For most “vulnerable” of yellowfin, bigeye, or skipjack
- Phased approach to potentially distinguish between different types of sets or optimizing yield.

Credits

- *Credits or credit-days*, denominated in units of days, are created *gratis* when the vessel uses a number of days below the vessel’s allocated limit of days in a certifiable way and reported to, and registered with, the IATTC Secretariat.
- The unused portion of a vessel’s annual days (PAE), called a *credit*, can be transferred within a CPC to other vessels within the same company or to other companies and even across vessels of different CPCs as agreed by those CPCs.
- A credit receiver only needs credits to offset days exceeding its limit.
- PAE (days limit) allocated to individual vessels within the same multi-vessel company can be pooled and reallocated as required by the company to maximize expected catch, revenue, or profit as the company sees fit and to reduce uncertainty.
- Credits transferred within a company from one vessel to another must still be reported to the Director.
- A vessel may not agree to transfer to other vessels more than a fraction of its PAE.
 - 75% or some other minimum?
 - The intent of this provision is to ensure continued eligibility in the Scheme. Vessels may request days only to maintain eligibility.
- An unresolved issue is whether or not there is a maximum limit to accumulated days per vessel.
- As discussed elsewhere, credits cannot be transferred forward to another Management Year or backwards to a previous Management Year to retroactively compensate for days that exceed the allocated limit (PAE).

Management Year

- *Management Year* is the period of one year during which management measures hold.

Party Allowable Effort Share (PAES)

- *Party Allowable Effort Share* or *PAES* is the proportion or share of the Total Allowable Effort allocated to each eligible vessel through its CPC. Part II of this report develops and analyzes four different formulae for the *PAES*.

Party Allowable Effort (PAE)

- Number of days in a Management Year for each CPC and its eligible vessels. The steps to create PAE are:
 - Create TAE
 - Allocate PAES to eligible individual vessels through the CPCs.
 - Each vessel's PAE is then calculated as PAES * TAE
- Three-year allocation period
 - Consistent with current conservation and management resolution duration

Capacity

- Total capacity of vessel. The total well volume of a vessel, including the volume of any sealed wells.
- Active capacity. See Resolution [C-02-03](#). 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.