

Chair's Paper on Catch Attribution

Technical Committee on Allocation Criteria (TCAC15)
Zanzibar, July 2025

Introduction

In October 2024, TCAC13 requested the IOTC secretariat and TCAC Chair to prepare information papers and tables for its next in-person meeting in July 2025. These included a request for the Chair to prepare an information paper that explores options for the attribution of catch history for CPCs fishing in the EEZ of other CPCs. The paper shall include options of transition periods and other options to address and balance coastal CPC and flag CPC concerns.

Background

As discussed in more detail in the jurisdiction paper,¹ the United Nations Convention on the Law of the Sea (LOS) applied a zone-based order, dividing the oceans into areas *within* and *beyond* national jurisdiction, each zone being characterised by a different set of rights and responsibilities. When adopted in 1982, the LOSC allocated ~ 36% of the world's ocean surface and ~ 90% of the world's fisheries to coastal States.² At the adoption of the LOSC, it was suggested that the property rights granted to coastal States would significantly resolve the tragedy of the commons in fisheries and allow for effective fisheries management within coastal regions.³ Almost all IOTC CPCs are party to the LOSC,⁴ which also arguably holds customary legal status.

Within internal waters and territorial seas out to 12 nautical miles, coastal States hold sole jurisdiction, free of external interference within internationally agreed limits.⁵ The fisheries framework in the Law of the Sea provides minimal obligations for these maritime zones under sovereignty.⁶ Under general international law, coastal States have absolute

¹ <https://iotc.org/documents/TCAC/15/06E>

² Davis RA, Hanich Q, Haas B, Cisneros-Montemayor AM, Azmi K, Seto KL, Swartz W, González Espinosa PC, Colléter M and Adams TJH (2022) Who Gets the Catch? How Conventional Catch Attribution Frameworks Undermine Equity in Transboundary Fisheries. *Front. Mar. Sci.* 9:831868. doi: 10.3389/fmars.2022.831868

³ J. Moore, Norton. (1995) Welcoming Remarks and Framing the Issues. *Entry into Force of the Law of the Sea Convention*. Ed. M. H. Nordquist and J. Moore, Norton. The Hague. Martinus Nijhoff Publishers.

⁴ All CPCs are party to the LOSC except for Iran which has signed, but not yet ratified or acceded.

⁵ https://treaties.un.org/pages/ViewDetailsIII.aspx?src=TREATY&mtdsg_no=XXI-6&chapter=21&Temp=mtdsg3&clang=en

⁶ Articles 2, 19, 21, 49, 52 of LOSC

⁷ The only references to fisheries in zones under sovereignty are under Article 19(2)(a), Article 21(1)(d), and Article 51(1).⁸ However, none of these provisions relate to the conservation and management of fisheries.

sovereignty in respect of the living and non-living resources out to 12 nautical miles,⁷ and that can only be limited by their express agreement.⁸ Sovereignty is qualified only by specific international obligations assumed by States. In the absence of any specific fisheries conservation and management qualifications, coastal States “have a wide margin of discretion in regulating the use of the resources in maritime internal waters, archipelagic waters and the territorial sea.”⁹

It is common global practice for coastal and island States to prohibit foreign vessels from fishing within these waters so as to avoid conflict with artisanal and small-scale fishing vessels. Given the sovereignty of internal waters and territorial seas out to 12nm, the minimal catch by foreign vessels in these waters, and the focus of TCAC on EEZ questions – this paper assumes that catch history inside 12nm belongs to the coastal State and is attributed accordingly.

Beyond 12 nautical miles, coastal States may claim an exclusive economic zone (EEZ) out to a maximum of 200 nautical miles, within which they hold sovereign rights for the purpose of exploring, exploiting, conserving, and managing natural resources (i.e., living, and non-living resources) and a responsibility to protect the marine environment.¹⁰ Coastal States hold exclusive rights to determine who can access their EEZ resources, and under what conditions.¹¹ Coastal States shall promote the objective of optimum utilisation and provide foreign access to any surplus allowable catch, but, they are given exclusive discretion in determining the surplus, if any, and any conditions and fees.

Access arrangements have provided a critically important mechanism for coastal States to promote optimum utilisation and enable foreign flagged fleets to fish within their EEZs. Through these arrangements, fishing fleets pay for access to an EEZ. Depending on the structure of the arrangement, they may also pay additional fees for any resulting catch. The resulting catch is a significant component of the IOTC fisheries and is the focus of this paper. A recent study of access arrangements found no evidence of any payment for catch history – all arrangements only provided for access to fish within the short timeframe of the access arrangement. No evidence of any payment or provision could be found for the transfer of longer-term rights.¹²

This is consistent with the LOSC which does not provide for any transfer of long-term rights. Article 61 of the LOSC requires the coastal State to ensure the conservation and management of target, associated, and dependent species, and prevent

⁷ *Permanent Sovereignty over Natural Resources*, GA Res 1803 (XVII), UN GAOR, 17th session, 1194th plenary meeting, Agenda Item 39, UN Doc. A/RES/1803(XVII) (14 December 1962).

⁸ LOSC Art. 2(3).

⁹ E. Hey, “The Fisheries Provisions of the LOS Convention”, in Hey (ed) *Development in International Fisheries Law* (Netherlands: Kluwer Law International 1999); See also R. R. Churchill and A. V. Lowe, *The Law of the Sea* (3rd ed, Manchester: Manchester University Press 1999).

¹⁰ Article 56(1)(b)(i-iii) of LOSC

¹¹ Article 56 of LOSC: “In the exclusive economic zone, the coastal state has: (a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds [...]”

¹² Mialy Andriamahefazafy, Bianca Haas, Liam Campling, Frédéric LeManach, Camille Goodman, Timothy J. H. Adams & Quentin Hanich (2024). Advancing tuna catch allocation negotiations: an analysis of sovereign rights and fisheries access arrangements . *npj Ocean Sustainability*. <https://doi.org/10.1038/s44183-024-00055-9>

overexploitation. The rights and obligations of coastal States to conserve and manage fishery resources in the EEZ and determine the terms of their utilisation remain perpetually with the coastal State.

As discussed in the jurisdiction paper, the United Nations Fish Stocks Agreement (UNFSA)¹³ is also fundamental to the governance framework for highly migratory stocks. UNFSA further clarified the scope and content of the duty to cooperate in relation to straddling fish stocks and highly migratory species, and elaborated the necessity and development of compatible measures for both EEZs and high seas, but it also explicitly declared that:

*Nothing in this Agreement shall prejudice the rights, jurisdiction and duties of States under the Convention. This Agreement shall be interpreted and applied in the context of and in a manner consistent with the Convention.*¹⁴

The IOTC Agreement similarly balances the need to manage migratory stock across their entire range, including EEZs, while protecting the sovereign rights of coastal States, declaring:¹⁵

This Agreement shall not prejudice the exercise of sovereign rights of a coastal State in accordance with the international law of the sea for the purposes of exploring and exploiting, conserving and managing the living resources, including the highly migratory species, within a zone of up to 200 nautical miles under its jurisdiction.

While progressing the duty to cooperate and modernising the management of transboundary fisheries, UNFSA very carefully continued to recognise the sovereign rights of coastal States over their EEZs. UNFSA clarified and expanded coastal and flag State duties and obligations, without undermining the LOSC framework for coastal and flag State rights.

UNFSA also prescribed a number of other important developments in fisheries management, particularly relating to the provision of data. UNFSA explicitly obliges coastal States and States fishing on the high seas, in giving effect to their duty to cooperate in accordance with the Convention, to (among other things):¹⁶

(j) collect and share, in a timely manner, complete and accurate data concerning fishing activities on, inter alia, vessel position, catch of target and non-target species and fishing effort, as set out in Annex I, as well as information from national and international research programmes;

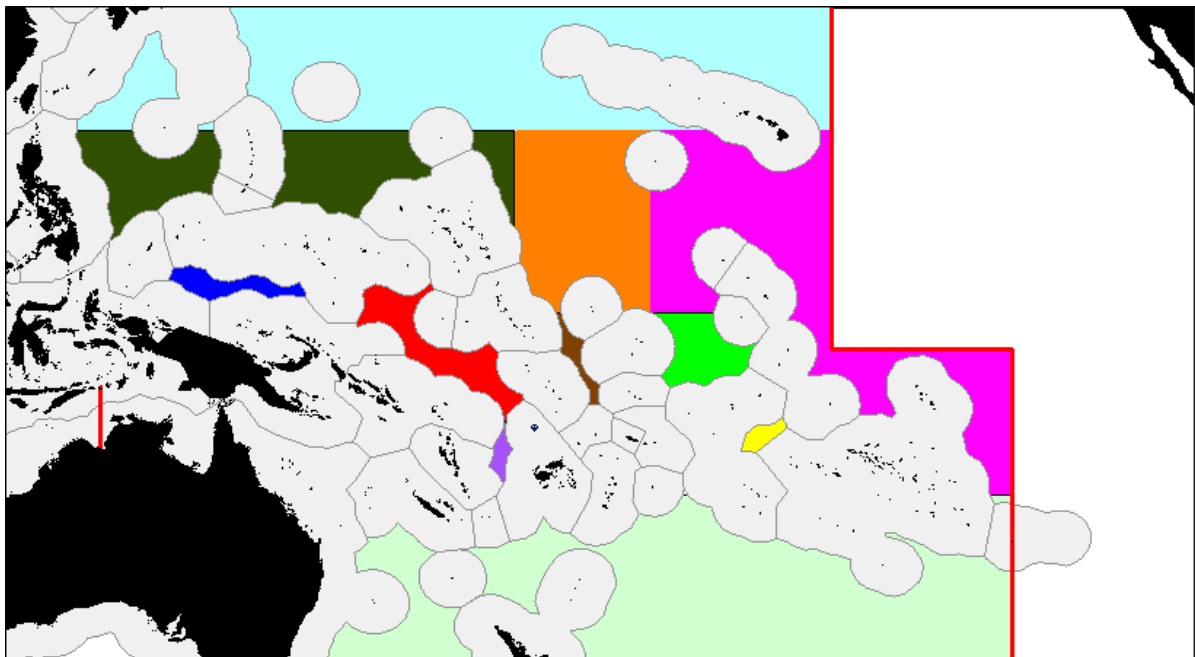
¹³UNFSA, *Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea 10 December 1982, Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks*. (New York, USA. International Legal Materials, vol. 34. 1995).

¹⁴ Article 4, UNFSA.

¹⁵ Article XVI. IOTC Agreement. <https://iotc.org/sites/default/files/documents/2012/5/25/IOTC%20Agreement.pdf>

¹⁶ Article 5j, UNFSA.

Other RFMOs have implemented this obligation, establishing comprehensive data regimes that apply to both EEZs and high seas, and require the provision of operational data for all relevant fisheries within EEZs and high seas. These regimes enable the accurate attribution of all catch to the appropriate EEZ and high seas area, supporting science, management and MCS objectives. One example is the WCPFC, where operational data is provided by all WCPFC parties to the WCPFC for all industrial fleets (including longline) and for all high seas areas, as well as EEZs. In the early years, WCPFC allowed parties to provide aggregated data while developing their domestic processes. But these processes have now all long been implemented with full operational data provided to the secretariat and science provider.¹⁷ This enables easy attribution of catches to the appropriate EEZ or high seas area. As a result, the WCPO region annually prepares and distributes a public database of all catches for key species that is attributed by EEZ and high seas area, visualised in the colour-coded map below.¹⁸



Many of the IOTC EEZ fisheries are harvested by numerous artisanal and small-scale fishing fleets across large EEZs in developing coastal States, with limited capacity to monitor and report catches. This has long been an ongoing challenge and the subject of previous discussion at TCAC meetings as it directly impacts on catch attribution and undermines the efficacy of catch history as an allocation principle. TCAC13 discussed these problems in October 2024 and agreed to the following related recommendations:¹⁹

*The TCAC **REQUESTED** the WPDCS provide advice on applicability of available catch estimation methodologies to account for artisanal catch history in IOTC CPCs that have been unable to monitor and report artisanal fisheries. The TCAC*

¹⁷ SPC advises that WCPFC has been receiving full operational data from all WCPFC members since approximately 2018. The definition of 'operational data and reporting requirements is provided in <https://www.wcpfc.int/doc/data-01/scientific-data-be-provided-commission-revised-wcpfc4-6-7-and-9>

¹⁸ The raw database can be downloaded at <https://www.ffa.int/download/wcpfc-area-catch-value-estimates/>

¹⁹ https://iotc.org/sites/default/files/documents/2025/02/IOTC-2024-TCAC13-RE_FINAL.pdf

ENCOURAGED all CPCs with artisanal catch histories to attend the upcoming WPDCS.

NOTING the ongoing challenges for some IOTC CPCs to adequately monitor and record artisanal fishing effort and catch, TCAC **REQUESTS** the WPDCS to identify the current gaps in data collection and for the WPICMM to review capacity needs in CPCs on the basis of their input and **RECOMMENDS** that the Commission consider developing an integrated capacity building strategy to build resilient and enduring fisheries monitoring and data reporting systems and domestic expertise for IOTC developing CPCs, and expand catch estimation methods at State and regional levels. This strategy should include consideration of funding grant opportunities for regional programs, such as the Global Environment Facility and other global funders.

However, in regard to clarifying catch attribution by foreign vessels in EEZs, the key concern is with distant water fishing fleets that harvest significant catches, both in EEZs and on the high seas. While most IOTC CPCs are UNFSA parties, and many IOTC CPCs are also WCPFC members,²⁰ the IOTC has so far failed to implement this UNFSA requirement and continues to depend on aggregated data that is insufficient to differentiate between EEZ and high seas. As a result, the IOTC depends on a rough methodology to attribute catches between high seas and EEZ boundaries. Unfortunately, these estimates are sometimes erroneous and require further validation to improve their accuracy. TCAC13 discussed these problems in October 2024 and agreed to the following related recommendations:²¹

- **NOTING** that the spatial granularity of the 5° grid area set in IOTC Resolution 15/02 (para. 4) for catch data from longline fisheries hampers accurate estimation of catch distribution between EEZs and High Seas, the TCAC **ENCOURAGES** CPCs with longline fisheries to provide geo-referenced catch data by species from longline fisheries to be reported in weight by 1° grid area and monthly strata or finer scale if available.
- TCAC **REQUESTED** CPCs cooperate with the secretariat as it prepares an information paper that estimates catches taken by one CPC (or non-CPC) in another CPC's EEZ which may be subject to catch attribution questions. In order to support this study, TCAC reiterated the importance for CPCs to provide relevant information to the secretariat as covered in Resolution 14/05 or operational data to enable accurate distribution of catch across overlapping HS/EEZ boundaries.

Given that many IOTC coastal States are also developing States, it is important to note the special needs, rights and aspirations of developing States, particularly the need to avoid adverse impacts on, and ensure access to fisheries by, subsistence, small-scale

²⁰ Most CPCs are party to the UNFSA except for: Madagascar, Somalia, Sudan, Tanzania, Yemen; and China and Pakistan which have signed, but not yet ratified or acceded. IOTC CPCs that are party to WCPFC include: Australia, China, EU, France, Indonesia, Japan, Korea, and Philippines.

https://www.un.org/Depts/los/reference_files/StatusTablesEnglish.pdf

²¹ https://iotc.org/sites/default/files/documents/2025/02/IOTC-2024-TCAC13-RE_FINAL.pdf

and artisanal fishers, women fishworkers, and Indigenous Peoples. UNFSA also explicitly requires parties to ensure that conservation measures do not result in transferring, directly or indirectly, a disproportionate burden of conservation action onto developing States.²² The FAO Code of Conduct for Responsible Fisheries²³ also similarly recognised development concerns, noting that the capacity of developing countries to implement fisheries management should be duly taken into account. Paragraph 5.2 of the Code of Conduct states:

In order to achieve the objectives of this Code and to support its effective implementation, countries, relevant international' organizations, whether governmental or non-governmental, and financial institutions should give full recognition to the special circumstances and requirements of developing countries, including in particular the least-developed among them, and small island developing countries. States, relevant intergovernmental and non-governmental organizations and financial institutions should work for the adoption of measures to address the needs of developing countries, especially in the areas of financial and technical assistance, technology transfer, training and scientific cooperation and in enhancing their ability to develop their own fisheries as well as to participate in high seas fisheries, including access to such fisheries.

Finally, there has been some uncertainty in previous TCAC meetings over the identification of coastal States, particularly in relation to REIOs. For the purposes of catch attribution, it is understood that the EEZs of Mayotte and La Reunion are considered part of the EU, effectively granting the EU membership as a coastal State.²⁴

Options for Attribution of Catch History for Foreign Fishing Vessels in an EEZ, Transition Periods and Other Balance Options

Historically, global fisheries have allocated quota based on historical catch, primarily defined by flag State catch attribution.²⁵ However, more recently, consistent with the LOSC and UNFSA, coastal States have become more assertive of their sovereign rights. This is most visibly demonstrated in the world's biggest tuna fishery where the WCPFC has applied zone-based models for catch limits, assigning limits to flag States for high seas, and limits to coastal States for their EEZs. These developments are also responses to global commitments to consider the special requirements of developing States, and the expansion of criteria that should be considered in allocation frameworks, beyond just catch history.

Within the Indian Ocean context, there are four options for catch attribution, two of which would utilise transition periods to balance the sovereign rights of coastal States with the fishing interests of distant water fishing flag States. Its critically important that TCAC

²² Article 24, UNFSA.

²³ FAO. *Code of Conduct for Responsible Fisheries*. 1995.

<https://openknowledge.fao.org/server/api/core/bitstreams/4a456053-db08-4362-875a-2fdc723c1346/content>

²⁴ <https://iotc.org/documents/TCAC/15/06E>

²⁵ Davis RA, Hanich Q, Haas B, Cisneros-Montemayor AM, Azmi K, Seto KL, Swartz W, González Espinosa PC, Colléter M and Adams TJH (2022) Who Gets the Catch? How Conventional Catch Attribution Frameworks Undermine Equity in Transboundary Fisheries. *Front. Mar. Sci.* 9:831868. doi: 10.3389/fmars.2022.831868

adopts a pathway that can lead to consensus and balance these concerns. All options assume that all high seas catch history is attributed to the flag State.²⁶

- **Option 1** attributes EEZ catch history to the coastal State. Distant water fishing (DWF) CPCs would continue current practice and purchase access to fish coastal State quota through access arrangements. Option 1 appears to be consistent with the legal framework and global commitments to equity and the special requirements of developing States, but is opposed by some of the DWF CPCs, at least in the short term.
- **Option 2** attributes EEZ catch history to the coastal State but provides guarantees to DWF CPCs with relevant catch history that their vessels will be prioritised through preferential access arrangements that allow their vessels to continue fishing this quota up to the level of the DWF CPC's catch history in that EEZ. Beyond that level, distant water fishing States would continue to purchase access to fish this coastal State's quota through access arrangements as is current practice. An example scenario is provided below:
 - "*Beach*" is a Coastal State CPC that is allocated quota of 20,000mt, calculated through a mixture of allocation criteria that includes catch history as one of the criteria. *Beach* licenses foreign industrial fishing fleets, and a large number of domestic artisanal fishing fleets.
 - "*Ship*" is a DWF CPC with vessels that have previously fished within the EEZ of *Beach*, reporting a catch history of 2,000mt in these waters.
 - For a period of time, *Beach* guarantees that it will prioritise access agreements for DWF fleets flagged to *Ship*, up to 2,000mt per year, but retains its LOSC rights to determine fees and conditions.
 - *Beach* complies with the LOSC and continues to promote the optimum utilisation of its EEZs through licensing foreign fishing vessels to harvest any surplus quota that it is unable to exploit with its domestic fleets.
 - IOTC allows for CPCs to also trade surplus quota between CPCs, enabling *Beach* to transfer surplus quota to other CPCs for use in other EEZs or high seas, thereby maintaining stability of fishing operations across the IOTC within a limit consistent with IOTC scientific recommendations. *Ship* is also able to trade or purchase surplus quota for its own fleet.
- **Option 3** initially attributes the majority of EEZ catch history to the flag State, regardless of whether the flag State is the same as the coastal State or is foreign, but gradually transitions this catch history to the coastal State over a period of time. During the early period of this transition period, coastal States may need to purchase surplus quota from other CPCs if the coastal State wishes to develop their own domestic fleets within their own EEZ. Coastal States will only be able to license foreign DWF fleets that have sufficient quota of their own. Coastal States will still retain their sovereign rights to exclusively determine access fees and

²⁶ As noted above, the IOTC is yet to fully implement UNFSA obligations regarding data. As a result, the IOTC does not always have accurate data on high seas catches and will need to utilise estimation and validation methods to determine high seas catches.

conditions for all fleets, including those with their own quota. This compromise option was suggested by the previous TCAC chair.

- **Option 4** attributes EEZ catch history to the flag State, regardless of whether the flag State is the same as the coastal State or is foreign. Coastal States may need to purchase surplus quota from other CPCs if the coastal State wishes to develop their own domestic fleets within their own EEZ. Coastal States will only be able to license foreign DWF fleets that have sufficient quota of their own. Coastal States will still retain their sovereign rights to exclusively determine access fees and conditions for all fleets, including those with their own quota. Option 4 is opposed by the majority of CPCs and risks inconsistency with the LOSC and UNFSA and may also apply a disproportionate burden of conservation onto developing States.

Transferability and transition periods will be critical to consensus. A transition period is similarly critical as it provides time for industry and governments to adapt and maintain the viability and stability of fishing fleet operations. The length of the transition period is yet to be agreed, but previous discussions have suggested 10 years to be a reasonable period.

Hybrid options may also be developed that permanently divide attribution between coastal and flag States, not just for the transition period.

The Transferability paper²⁷ describes how transferability can also play an important role, providing flexibility and accommodating a wide range of interests. A well-designed framework should enable the IOTC to more effectively balance multiple objectives and achieve sustainability, equity and governance commitments.

Lastly - data is an ongoing challenge for the IOTC and must be resolved for any future allocation regime to succeed. The lack of historical data, particularly location data, has created substantial impediments to the accurate attribution of catch history. The IOTC will need to develop data reporting frameworks that provide sufficient location data so as to enable the implementation of any allocation agreement. This will require action by all CPCs – DWF CPCs will need to provide data comparable with what they provide to other RFMOs, while some developing CPCs may need assistance to build their capacity to implement data reporting frameworks.

²⁷ <https://iotc.org/documents/TCAC/15/05E>