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Governments Make Progress on United Nations Fish Stocks Agreement

Tuna RFMOs have implemented some key provisions, but ecosystem protections, accountability lag

Overview

The United Nations Fish Stocks Agreement (UNFSA) has governed worldwide “long-term conservation and sustainable use” of shared fish stocks—those that bridge the legal boundaries separating the waters of nations, mainly tunas and sharks—since 2001.¹ Yet more than 20 years on, a new analysis from The Pew Charitable Trusts finds that, despite some notable progress, countries still are not meeting important legal obligations under the agreement, even as advances in scientific knowledge present critical opportunities to update UNFSA’s decades-old provisions.

The UNFSA directs countries to cooperate to ensure that shared stocks are fished sustainably, according to the best science available, and to use an ecosystem-based management approach that accounts for these species’ value in the ocean’s broader web of life. Governments, in turn, pursue those collaborations through membership in regional fisheries management organizations (RFMOs), the international bodies empowered to manage shared fish populations.

Ahead of the 2016 review conference held on the 15th anniversary of the agreement's entry into force, Pew conducted an independent assessment of implementation of the UNFSA provisions. That study found that RFMOs were largely failing their management obligations, except in efforts to tackle illegal, unreported and unregulated (IUU) fishing.² At that time, RFMOs and their Member States had done only modest work to move fish stocks towards science-based harvest strategies, overfishing remained a global problem, and countries still largely ignored ecosystem considerations for species such as sharks.

In the intervening years, support has grown among parties to the agreement for a range of science-driven updates to the UNFSA provisions, particularly through new mandates for science-based approaches, such as harvest strategies, to managing fish stocks; for implementation of ecosystem-based management; and for incorporation of climate change impacts into RFMO practices. RFMOs should also enhance compliance regimes to align them with suggested improvements under consideration by the Resumed Review Conference.³ Additional approaches to sustainable management, including measures to protect biodiversity, such as marine protected areas (MPAs) and other effective area-based conservation measures, known as OECMs, also are garnering increased support and have been the focal points of discussion in other international forums.

In early 2023, the UN concluded negotiations on the text of an agreement to establish a new intergovernmental organization charged with the conservation and sustainable use of marine biodiversity on the high seas—that is, areas of the ocean that are beyond national jurisdiction. This new body will be empowered to establish comprehensive MPAs, and the agreement lays out a process, standards and guidelines for assessing the environmental impact of new exploratory activities not covered by current governance structures and undertaken outside of national jurisdictions.⁴

Additionally, this high seas agreement provides a platform to bring together multiple stakeholders, including RFMOs, for conservation and management to ensure the effectiveness and implementation of MPAs and the management measures that will underpin them. Establishment of comprehensive MPAs is not the primary function of any RFMO. However, by cooperating with the new high seas body, RFMOs can not only support effective management of the species under their jurisdiction, but also help Member States fulfil their wider conservation obligations, such as the Convention on Biological Diversity Global Biodiversity Framework.⁵

The new high seas agreement presents an opportunity for governments across the globe to consider marine biodiversity more holistically. For example, scientists or scientific bodies can identify non-fishing activities that jeopardize the health of fish stocks, and RFMOs can then act to mitigate the threats—in collaboration with the new high seas organization—as part of RFMOs' wider move towards ecosystem-based fisheries management.

Now, as the parties to the UNFSA prepare for the next Resumed Review meeting, Pew has again examined the progress that RFMOs and their Member States have made since 2016 in implementing the most critical provisions of the Fish Stocks Agreement. The analysis is based on a review of the status of key tuna stocks and of the management measures across the five tuna RFMOs: the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Inter-American Tropical Tuna Commission (IATTC), the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Indian Ocean Tuna Commission (IOTC) and the Western and Central Pacific Fisheries Commission (WCPFC).

The analysis found that UNFSA implementation has been inconsistent. Since 2016, the share of commercially fished highly migratory fish stocks that are overfished has increased from 36% to 40%, and three quarters of oceanic shark and ray species for which data is available remain potentially overexploited or depleted to the point of endangerment.⁶ At the same time, however, RFMOs have adopted new science-based, sustainable management measures and put stronger rules in place to end illegal fishing, and some stocks that were depleted are healthier or recovered.

As RFMOs work to improve how they are conserving and managing their stocks, they and their States need to hold one another accountable for ensuring that the RFMOs' mandated measures are being effectively implemented. These findings can help inform the work of the Parties as they convene for the 2023 UNFSA review conference to assess the progress to date and make needed revisions to the agreement.

This brief documents the progress of the five RFMOs across five of the Fish Stocks Agreement's highest-priority mandates and explores opportunities to update the agreement in light of the latest science and the effectiveness of RFMOs' and Member States' efforts to date.

Precautionary fisheries management

The Fish Stocks Agreement stipulates that “States shall apply the precautionary approach widely ... in order to protect the living marine resources and preserve the marine environment,” which means being “more cautious when information is uncertain, unreliable or inadequate.”⁷ In addition, the absence of scientific information cannot “be used as a reason for postponing or failing to take conservation and management measures.”⁸

Three of the ways that RFMOs can implement the precautionary approach include establishing reference points for targeting and limiting of harvest; maintaining or restoring of stocks to levels at or above those that provide maximum sustainable yield; and using an ecosystem-based approach that considers the impact of fishing within the broader ocean.

Establish target and limit reference points as part of comprehensive management procedures

The agreement requires States, via RFMOs, to develop management procedures (MPs) that implement the precautionary approach by determining two sets of stock-specific reference points—limit (also called conservation) and target (also called management)—based on fishing mortality or stock size and to act when those reference points are breached according to pre-agreed management responses.

The limit reference points represent the outer boundary of sustainable fishing and define the level beyond which fishing is no longer sustainable. According to the agreement, “limit reference points set boundaries that are intended to constrain harvesting within safe biological limits within which the stocks can produce maximum sustainable yield [(MSY)].”⁹ Target reference points define the ideal fishery state, which can create a buffer zone to help managers ensure that the limit point is not reached.

When a stock size drops below or fishing mortality rises above a set reference point, managers implement a “harvest control rule.” The details will depend on whether a target or limit has been breached, but in general, rules that are triggered at or near the target reference point aim to return or maintain the stock at the target while those triggered at the limit reference point are intended to return a stock to biologically safe levels and prevent a crash. Under severe circumstances, managers may close a fishery that has breached a reference point until the stock recovers.

Pew's 2016 progress report focused on evaluating RFMOs' progress towards adoption of reference points, but this latest analysis concentrates on the second component of these requirements: adoption of management procedures, also known as harvest strategies—that have been tested and shown effective using a model known as management strategy evaluation (MSE)—and harvest control rules.

Table 1

RFMOs Have Made Notable Progress Establishing MSE-Tested Management Procedures

Status of reference point provision, by organization

	Has at least one fully implemented, MSE-tested management procedure
	Has adopted, but not yet implemented, at least one MSE-tested management procedure
	Has not adopted any MSE-tested management procedures
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	After southern bluefin tuna declined to an estimated 5% of its unfished biomass, CCSBT in 2011 adopted a management procedure (MP) to link annual catch limits to fishery-dependent and -independent indices of abundance. CCSBT revised the MP in 2019. Under this regime, the stock reached its initial recovery target of 20% of unfished biomass by 2020, 15 years ahead of schedule, even as the catch limit increased by 87% over the same nine-year period. The commission's new target, set in 2021, aims to grow the stock to 30% of unfished biomass by 2035, with the maximum sustainable yield (MSY) equivalent (24% of unfished biomass) as the de facto limit reference point. The stock has no reference points based on fishing mortality.
Inter-American Tropical Tuna Commission (IATTC)	IATTC is the only tuna RFMO that has not adopted any MPs. In 2014, IATTC set interim target and limit reference points for tropical tunas, but those points are not consistent with United Nations Fish Stocks Agreement obligations because IATTC set the fishing mortality rate that would produce MSY as the target, rather than the limit, reference point, as required by the agreement. Additionally, a target for fishing mortality that is at, and not below, MSY does not account for depletion to date or buffer against overfishing. Further, the commission's harvest control rule for tropical tunas, adopted in 2016, does not automatically trigger a specific action, instead calling for a response "as soon as is practical." Finally, even if the rule applied the interim limit reference points, stocks could still be fished down to 8% of unfished biomass, well below the stock size that would produce MSY.
International Commission for the Conservation of Atlantic Tunas (ICCAT)	In 2015, ICCAT adopted a recommendation calling for development of harvest control rules—including setting reference points—for its most important stocks within five years. Although ICCAT did not meet that deadline, it has adopted and fully implemented management procedures for northern albacore in 2021 and for both stocks of Atlantic bluefin tuna in 2022. Additionally, ICCAT in 2013 set an interim limit reference point for North Atlantic swordfish equal to 40% of the biomass that produces MSY, the same value it used for albacore and bluefin.
Indian Ocean Tuna Commission (IOTC)	IOTC has adopted one MP—for bigeye tuna in 2022—but will not implement it until 2024. In 2012, IOTC set interim nonbinding reference points for biomass and fishing mortality for yellowfin, bigeye, albacore and swordfish. The target fishing mortality rate is at MSY, which does not comply with the requirement that fishing mortality at MSY serve as a limit, not a target, reference point. The Commission adopted a harvest control rule for skipjack in 2016, with a target reference point of 40% of unfished biomass and a limit point of 20% of unfished biomass. However, fishing has exceeded that limit by up to 30% every year since its adoption, primarily because no agreement on a formula for allocation of catch between fishing nations has been reached.
Western and Central Pacific Fisheries Commission (WCPFC)	WCPFC has adopted one MP—for skipjack in 2022—but has not yet implemented it and did not include a mandate for management action. In 2014, WCPFC committed to develop and implement harvest strategies, including the adoption of reference points and management procedures for its key fisheries or stocks. The Commission then agreed to interim target reference points in 2015 and 2018 of 50% of unfished biomass for skipjack and of 56% of unfished biomass for South Pacific albacore, respectively. WCPFC also set interim limit reference points for the tropical tunas and South Pacific albacore at 20% of unfished biomass, at or above the MSY level.

Sources: RFMO resolutions: Commission for the Conservation of Southern Bluefin Tuna, "Operational Resolutions and Other Important Documents"; Inter-American Tropical Tuna Commission, "IATTC Resolutions"; International Commission for the Conservation of Atlantic Tunas, "Resolutions, Recommendations and Other Decisions"; Indian Ocean Tuna Commission, "Conservation and Management Measures (CMMS)"; Western and Central Pacific Fisheries Commission, "Conservation and Management Measures"

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Maintain or restore stocks to maximum sustainable yield according to the best available science

States working within RFMOs must adopt science-based measures “to ensure long-term sustainability” of fish stocks that are “designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors.”¹⁰ States must “apply the precautionary approach” in development and implementation.¹¹

The agreement does not include specific timelines to rebuild stocks. However, adherence to management procedures—following the objective standard of MSY—and to the best available science can and should dictate rebuilding timelines, which in turn can dramatically reduce the political influence frequently seen in fisheries negotiations and quota-setting.

Pew’s 2016 report focused on tunas, and since then, RFMOs have made some progress recovering some depleted stocks. But this analysis finds that other tuna stocks continue to be overfished. Additionally, this latest analysis examined the status of billfishes and sharks at the RFMO level and found that those stocks are inadequately assessed and insufficiently managed. These findings highlight the failure of Member governments to take the necessary steps to ensure recovery of depleted stocks. They also point to the urgent need to increase the available fisheries information so RFMOs can implement management measures that reflect what each stock needs to achieve stability.

Until this management gap is resolved, Member States will continue to fall short on their obligations under UNFSA.



Shortfin mako shark (*Isurus oxyrinchus*) swimming under the surface in open water

Photo by Nano Calvo/VWPics/Universal Images Group via Getty Images

Table 2

RFMOs Need to Do More for Troubled Populations, Starting With Applying the Best Science Available

Status of stocks maintenance or restoration to MSY, by organization

	All stocks are at or above the size required to produce MSY
	Has science-based rebuilding plans in force for any stocks that are below the size required to produce MSY
	Has no science-based rebuilding plans for some stocks that are below the size required to produce MSY

Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	CCSBT manages only southern bluefin tuna and by 2010, the stock was severely depleted, with a total reproductive output (TRO) of only about 10%. But since the Commission introduced a harvest strategy in 2011, the stock has more than doubled in size. This recovery rate is faster than expected, but the stock remains below the level estimated to achieve MSY. And even with harvest control rules in place, the stock's recovery timeline is more than 20 years. Further, although the stock achieved the interim recovery target of 20% of unfished biomass 15 years early, it remains at only 69% of the level required to sustain MSY. CCSBT has introduced a new rebuilding target of 30% of the original spawning biomass by 2035.
Inter-American Tropical Tuna Commission (IATTC)	IATTC appears on track to recover Pacific bluefin tuna, which was once fished to less than 2% of its unfished stock size. Implementation of the 2017 joint IATTC-WCPFC rebuilding plan has increased the stock to about 10% of its unfished size and projections show a 60% probability that it will achieve 20% by 2029, even though managers have already raised catch limits.
International Commission for the Conservation of Atlantic Tunas (ICCAT)	ICCAT has successfully recovered several stocks, including North Atlantic swordfish, North Atlantic albacore and the eastern population of Atlantic bluefin tuna, thanks to science-based rebuilding plans. However, several key species remain overfished, including bigeye tuna, white marlin, Mediterranean swordfish and North Atlantic shortfin mako sharks. Other stocks, including Mediterranean albacore, South Atlantic swordfish and blue marlin, are overfished and subject to continued overfishing. ICCAT manages all of these overfished species according to science-based rebuilding plans, but some of those plans do not appear to be successful. For example, blue marlin is still subject to overfishing, despite having a rebuilding plan that ICCAT adopted in 2000.
Indian Ocean Tuna Commission (IOTC)	Of the four main tuna stocks managed by the IOTC, skipjack and albacore are healthy. Yellowfin tuna has been overfished and subject to overfishing since 2015, and because IOTC has not effectively implemented the recovery plan it agreed to that same year, no stock recovery has been observed. Bigeye tuna is experiencing overfishing and could soon drop below the MSY maintenance level unless the Commission implements effective management. In 2022, the IOTC agreed to a harvest strategy for bigeye tuna but will not implement it until 2024. In addition to yellowfin, blue marlin and striped marlin, longtail tuna and narrow-barred Spanish mackerel all have stock levels below MSY, are being overfished and have no effective rebuilding plans.
Western and Central Pacific Fisheries Commission (WCPFC)	WCPFC appears on track to recover Pacific bluefin tuna, which was once fished to less than 2% of its unfished stock size. Implementation of the 2017 joint IATTC-WCPFC rebuilding plan has increased the stock to about 10% of its unfished size and projections show a 60% probability that it will achieve 20% by 2029, even though managers have already raised catch limits. However, the Commission does not manage its other overfished stocks, including southwest Pacific striped marlin and oceanic whitetip shark, according to science-based rebuilding plans.

Sources: RFMO stock assessments: Commission for the Conservation of Southern Bluefin Tuna, "Latest Stock Assessment"; Inter-American Tropical Tuna Commission, "Stock Assessment Reports"; International Commission for the Conservation of Atlantic Tunas, "Stock Assessments and Executive Summaries"; Indian Ocean Tuna Commission, "Status Summary for Species of Tuna and Tuna-Like Species Under the IOTC Mandate, as Well as Other Species Impacted by IOTC Fisheries"; Western and Central Pacific Fisheries Commission, "Current Stock Status and Advice"

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Application of the ecosystem approach

The UNFSA requires that States cooperate to “assess the impacts of fishing, other human activities and environmental factors on target stocks and species belonging to the same ecosystem or associated with or dependent upon the target stocks.”¹² It further provides that States must “adopt, where necessary, conservation and management measures for species belonging to the same ecosystem or associated with or dependent upon the target stocks, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened.”¹³

This would mean more holistic management that aims to boost the resilience of fish populations and maintain the functioning of ecosystems, for example by considering predator/prey dynamics, interspecies interactions, spatial protections for critical habitat, e.g., spawning and nursery areas, and adaptation to threats such as the impacts of climate change.

Seabirds, turtles and sharks are particularly threatened by bycatch from tuna fishing. An ecosystem approach to tuna fisheries management, in line with long-standing commitments to ecosystem-based management, is critical to protect these vulnerable marine species. Although delegations to the Informal Consultations of States Parties to the UNFSA agreed in May 2022 that an ecosystem approach is “of crucial importance and expressed strong support,”¹⁴ RFMOs have made little progress in applying the approach in practice.

Despite these statements of support from Member States, tuna RFMOs do not yet consistently assess or coherently address the wider impacts of fishing. And to date, no RFMO has implemented a comprehensive ecosystem approach that meets international standards.¹⁵ Instead, most of the progress made by tuna RFMOs since 2016 relates to measures to reduce bycatch only of individual shark species.

To finally make meaningful progress on ecosystem management, tuna RFMOs should learn from the experience of fisheries managers, including some RFMOs, such as the Northwest Atlantic Fisheries Organization, in applying this approach around the world.¹⁶ Completely and accurately assessing the significant number of sharks, other nontarget and protected species, and immature tunas that are caught in fisheries managed by tuna RFMOs is a particularly urgent priority on the path towards implementing an ecosystem approach, especially for the global longline fleet, which operates with very limited observer coverage.

In addition, better monitoring of fishing activity and compliance and data-sharing among RFMO Members are critical to managing fishing impacts and adapting to threats. RFMOs and their Member States often point to incomplete information as justification when deferring needed conservation actions, but this is not an excuse. Rather, it is precisely the kind of problem that the precautionary approach generally and ecosystem-based management in particular can help managers account for. RFMOs should integrate ecosystem considerations into their management strategies without further delay.

Although RFMOs have taken commendable steps to implement the precautionary approach since 2016, the condition of many fish stocks continues to decline and this assessment highlights opportunities to improve those outcomes. In addition to the ongoing adoption and implementation of recommendations from the 2016 meeting, RFMOs must pursue new precautionary actions, including development of robust harvest strategies that address climate change impacts for all stocks; establishment of MPAs to increase climate resilience and provide a buffer against overfishing; and comprehensive monitoring to ensure Members’ compliance with these measures. RFMOs should also move towards greater transparency, not only regarding what happens on the water, but also how decisions are made to ensure accountability for governments, decision-makers and fishers.

Table 3

RFMOs Consistently Fall Short in Their Use of an Ecosystem Approach

Status of ecosystem approach application, by organization

	Has adopted rules to apply the ecosystem approach holistically across managed and unmanaged fisheries
	Has ecosystem-based protective measures in place for some, but not all, threatened and bycatch species associated with managed fisheries
	Has taken no or limited action to manage or protect threatened and bycatch species or to incorporate ecosystem considerations
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	CCSBT has a resolution to align its ecologically related species measures with those of the other tuna RFMOs with which it overlaps but has no measure in place to apply an ecosystem approach holistically across its fisheries.
Inter-American Tropical Tuna Commission (IATTC)	The 2003 Antigua Convention added ecosystem-based consideration of species affected by tuna fisheries, with multiple measures in place to implement this accord, including for silky, whale and oceanic whitetip sharks, mobulid rays, sea turtles and seabirds. However, the Commission has not implemented holistic ecosystem management and did not establish an ecosystems working group until 2022.
International Commission for the Conservation of Atlantic Tunas (ICCAT)	A 2015 resolution, which called on ICCAT to apply an ecosystem-based approach to fisheries management, was codified in the 2018 amendments to the IATTC Convention. The Commission has adopted several measures to protect non-target species, including sharks, seabirds and sea turtles, as well as special compliance processes for sharks and billfishes to increase adherence to data reporting and management requirements. ICCAT's ecosystems subcommittee has met annually since 2007 and is developing an ecosystem report card, but the Commission has not implemented a comprehensive implementation of an ecosystem approach. And although ICCAT in 2019 significantly amended its convention to directly manage sharks, the provisions will not go into effect until three-quarters (39) of ICCAT's 52 parties accept or ratify the change. To date, only four—the European Union, Norway, Japan and Canada—have done so.
Indian Ocean Tuna Commission (IOTC)	IOTC has several management measures in place to reduce the impact of fishing pressure on specific non-target species, e.g., mobulid rays, sharks, cetaceans, turtles and seabirds. IOTC's ecosystems working group has met annually since 2005, but the Commission still has no plans in place to apply an ecosystem approach holistically across its fisheries. An independent performance review required under UNFSA, which was presented to the IOTC in 2016, identified this lack of an ecosystem-based approach as something that the Commission should address.
Western and Central Pacific Fisheries Commission (WCPFC)	WCPFC has various management measures in place to reduce the impact of fishing pressure on specific non-target species, e.g., non-retention measures for some shark species, mobulid rays, turtles, seabirds and cetaceans. WCPFC also has had an ecosystems theme in its science meetings since its inception in 2005, but it has no measures or rules in place to apply an ecosystem approach holistically across its fisheries.

Sources: Inter-American Tropical Tuna Commission, "Convention for the Strengthening of the Inter-American Tropical Tuna Commission Established by the 1949 Convention Between the United States of America and the Republic of Costa Rica," (Aug. 27, 2010); RFMO resolutions: Commission for the Conservation of Southern Bluefin Tuna, "Operational Resolutions and Other Important Documents"; Inter-American Tropical Tuna Commission, "IATTC Resolutions"; International Commission for the Conservation of Atlantic Tunas, "Resolutions, Recommendations and Other Decisions"; Indian Ocean Tuna Commission, "Conservation and Management Measures (CMMS)"; Western and Central Pacific Fisheries Commission, "Conservation and Management Measures"

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Monitoring, compliance and enforcement

The Fish Stocks Agreement provides a framework for ensuring that RFMOs implement the conservation and management measures that they and their Member States adopt. Specifically, the agreement obligates flag and port States to exert control over vessels under their jurisdictions, including through enhanced regional cooperation. Of particular importance are measures to enable vessel identification and to require port State controls in accordance with the UN's Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (PSMA). This analysis examines whether RFMOs have adopted such measures, whether they are implementing those measures, and whether the measures achieve their intended purpose.

Identifying fishing vessels through International Maritime Organization (IMO) numbers

The Fish Stocks Agreement mandates that flag States require “marking of fishing vessels and fishing gear for identification in accordance with uniform and internationally recognizable vessel and gear marking systems.”¹⁷ And since the agreement's adoption, the international community has reached a consensus about the need to improve identification of fishing vessels by requiring the use of unique and permanent identification numbers to inform the global record of fishing vessels, which in turn, will bolster efforts to combat illegal fishing.

In 2013, the IMO removed an exception for fishing vessels from its numbering scheme. Since then, RFMOs have moved swiftly to mandate IMO numbers, which cost nothing to obtain, for all authorized vessels. Between 2013 and 2017, 11 RFMOs adopted requirements for the numbers, most of which took effect by 1 January 2016.



Fishing boat at sea Photo by Kai Honkanen/Getty Images

Table 4

RFMOs Have Adopted and Largely Implemented IMO Numbering Rules for All Ships

Progress on fishing vessel identification requirements by organization

	Requires IMO numbers for all fishing vessels; all RFMO Members authorize only vessels that comply with the requirement
	Requires IMO numbers for fishing vessels over a certain size; some authorized vessels do not comply with this requirement
	Does not require IMO numbers
Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	CCSBT requires its Members and Cooperating Non-members (CPCs) to ensure that fishing vessels in the following categories have IMO numbers: all fishing vessels flying their flag of at least 100 gross tonnes (GT) that are authorized to catch southern bluefin tuna, and, effective from 1 January 2022, all motorized inboard fishing vessels of less than 100 GT and 12 metres or more in length that are authorized to operate outside waters under the national jurisdiction of the flag State.
Inter-American Tropical Tuna Commission (IATTC)	Since 2016, CPCs must ensure that all non-recreational fishing vessels that are at least 100 GT or 100 gross registered tonnes (GRT) and are authorized to fish in the Convention area have an IMO or Lloyd's Register (LR) number. Effective 1 January 2020, flag CPCs also shall ensure that all their non-recreational motorized inboard fishing vessels of less than 100 GT or 100 GRT and 12 metres or more in length that are authorized to fish in the high seas of the Convention Area have an IMO or LR number.
International Commission for the Conservation of Atlantic Tunas (ICCAT)	As of 1 January 2016, flag CPCs shall authorize their commercial large scale fishing vessels (LSFVs) to operate in the Convention area only if the vessel has an IMO or LR number or a number in the seven-digit numbering sequence allocated by Information Handling Services-Fairplay Lloyd's Register, as applicable. Vessels that cannot obtain such a number and wooden LSFVs not authorized to fish on the high seas may seek an exception to the requirement. All vessels of 20 metres or longer that are fishing for tuna or tuna-like species in the ICCAT area must be authorized; smaller vessels are exempt.
Indian Ocean Tuna Commission (IOTC)	All vessels eligible under IMO requirements must have an IMO number to be authorized, and all foreign-flagged vessels that are eligible must have an IMO number to be licensed to fish by a coastal State in the IOTC area. IOTC requires authorization for all fishing vessels, including auxiliary, supply and support vessels, that are 24 metres or greater, or less than 24 metres if fishing beyond the flag State's exclusive economic zone, that target tuna or tuna-like species in the IOTC area.
Western and Central Pacific Fisheries Commission (WCPFC)	Commission Members, Cooperating Non-members and participating territories (CCMs) shall ensure that all their fishing vessels that are authorized to fish in the Convention area beyond the flag CCM's area of national jurisdiction and are at least 100 GT or 100 GRT have IMO or LR numbers. Effective 1 April 2020, flag CCMs also shall ensure that all their motorized inboard fishing vessels of less than 100 GT (or 100 GRT) and 12 metres or more in length that are similarly authorized have an IMO or LR number.

Source: S.H. Davies and M. Markides, "The 1989 FAO Standard Specifications for the Marking and Identification of Fishing Vessels: Use and Options for Review" (2022)

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Adopting port State controls

UNFSA provides that port States have the right and “duty to take measures, in accordance with international law, to promote the effectiveness of subregional, regional and global conservation and management measures.”¹⁸

Port States “may adopt regulations empowering the relevant national authorities to prohibit landings and transshipments where it has been established that the catch has been taken in a manner which undermines the effectiveness of subregional, regional or global conservation and management measures on the high seas.”¹⁹

Port State controls play an instrumental role in preventing illegal fish from entering the world’s markets by removing economic incentives for illegal operators and ensuring compliance with management measures. To be effective, however, these controls require broad application. The 2010 Resumed Review Conference encouraged States to consider adopting measures through RFMOs that are consistent with the PSMA.

Several RFMOs have reviewed their measures on port controls or have considered new ones, but only IOTC has a measure that is fully aligned with the provisions of the PSMA. IATTC and WCPFC have only non-binding measures. Further, implementation of adopted measures varies considerably across RFMOs in strength and requirements and should be better aligned with the PSMA.



Elevated cityscape of industrial harbour in Busan Photo by Allan Baxter/Getty Images

Table 5

RFMOs Have Made Mixed Progress on Port State Measures

Port State control adoption by organization

	Mandates minimum standards for inspections in port, consistent with the PSMA, and has implemented those measures through regional and national processes
	Mandates minimum standards for inspections in port but not a comprehensive set of port State measures consistent with the PSMA
	Does not mandate minimum standards for inspections in port

Commission for the Conservation of Southern Bluefin Tuna (CCSBT)	CCSBT adopted in October 2015 minimum standards for inspections in port, which entered into force on 1 January 2017. The Commission revised the standards in 2018, but they still are not fully aligned with the PSMA.
Inter-American Tropical Tuna Commission (IATTC)	IATTC adopted a scheme for minimum standards for inspection in port in 2021, but the measure is non-binding and not fully aligned with the PSMA. To opt in to the measure, Members must designate ports.
International Commission for the Conservation of Atlantic Tunas (ICCAT)	ICCAT adopted minimum standards for inspections in port in November 2018 that are not fully aligned with the PSMA. Some Members have not fully implemented the standards.
Indian Ocean Tuna Commission (IOTC)	IOTC adopted port State measures in 2010 that were amended and entered into force in 2016. The standards are consistent with the PSMA, but some Members have not fully implemented them.
Western and Central Pacific Fisheries Commission (WCPFC)	WCPFC adopted minimum standards for port State measures in 2017 that are non-binding and not fully aligned with the PSMA. To opt in, Members must designate ports.

Sources: Commission for the Conservation of Southern Bluefin Tuna, “Resolution for a CCSBT Scheme for Minimum Standards for Inspection in Port” (2018); Inter-American Tropical Tuna Commission, “Resolution for an IATTC Scheme for Minimum Standards for Inspection in Port” (2021); International Commission for the Conservation of Atlantic Tunas, “Recommendation by ICCAT on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing” (2018); Indian Ocean Tuna Commission, “Resolution 16/11 on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing” (2016)

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RFMOs took quick action to adopt IMO numbers, which are now in place on most of the world's fishing fleets. However, they have yet to fully implement the PSMA, even though more than 100 States have committed to its provisions. Most RFMOs have failed to adopt mandatory port State measures consistent with the PSMA, without which the effort to end illegal fishing faces significant additional hurdles. RFMOs should take immediate steps to employ stronger monitoring, information sharing and compliance regimes.



Yellowfin tuna Photo by Ellen Cuylaerts/Ocean Image Bank

Conclusion

Tuna RFMOs have made significant progress on several core areas of fisheries governance since the UNFSA review conference last convened in 2016, including on the designation of reference points for key stocks, action to increase monitoring and regulation of transshipment, and initial efforts at some RFMOs to strengthen compliance regimes. These advances show that governments take their role as stewards of tuna stocks more seriously than in the past.

But as the parties prepare to gather again for the 2023 Resumed Review Conference, these findings can help drive progress on other critical provisions and inform updates to the UNFSA that are urgently needed to further improve RFMO management and the health of international fisheries and the wider ocean ecosystem of which they are a part. In particular, RFMOs and Member States should seize this opportunity to modernize the agreement through a greater focus on transparency and accountability while also recommitting to precautionary, science-based management through mandates for harvest strategies, implementation of the ecosystem approach and better oceanwide compliance.

Endnotes

- 1 Division for Ocean Affairs Law of the Sea, “The United Nations Agreement for Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (in Force as from 11 December 2001) Overview” (2020), https://www.un.org/depts/los/convention_agreements/convention_overview_fish_stocks.htm.
- 2 The Pew Charitable Trusts, “Global Progress Toward Implementing the United Nations Fish Stocks Agreement,” accessed March 3, 2023, <https://www.pewtrusts.org/en/research-and-analysis/reports/2016/05/global-progress-toward-implementing-the-united-nations-fish-stocks-agreement>.
- 3 R. Day et al., “Approaches to Evaluate and Strengthen RFMO Compliance Processes and Performance: A Toolkit and Recommendations” (2022), https://drive.google.com/file/d/1_VgtVcRg6BAXg-VR8ULZfYmkqpc2_MQS/view?usp=sharing.
- 4 United Nations, “Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction,” accessed April 13, 2023, <https://www.un.org/bbnj/>.
- 5 Convention on Biological Diversity, Resolution CBD/COP/15/L.25, Kunming-Montreal Global Biodiversity Framework (Dec. 18, 2022), <https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/cop-15-l-25-en.pdf>.
- 6 N. Pacoureau et al., “Half a Century of Global Decline in Oceanic Sharks and Rays,” *Nature* 589 (2021): 567-71, <https://www.nature.com/articles/s41586-020-03173-9>; Food and Agriculture Organization (FAO) of the United Nations, “FAO’s Input to the UN Secretary-General’s Comprehensive Report for the 2023 Resumed Review Conference on the UN Fish Stocks Agreement,” accessed March 31, 2023, https://www.un.org/depts/los/convention_agreements/ICSP16/2023_FAOinputSTOCKS_UNFSARRC.pdf.
- 7 Division for Ocean Affairs Law of the Sea, “United Nations Fish Stocks Agreement,” Article 6(1-2).
- 8 *Ibid.*, Article 6(2).
- 9 *Ibid.*, Annex II, para 2.
- 10 *Ibid.*, Article 5(a-b).
- 11 *Ibid.*, Article 5(c).
- 12 *Ibid.*, Article 5(d).
- 13 *Ibid.*, Article 5(e).
- 14 Division for Ocean Affairs Law of the Sea, “Fifteenth Round of Informal Consultations of States Parties to the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks” (United Nations, 2022), https://www.un.org/depts/los/convention_agreements/ICSP15/22/ICSP15final_for_website.pdf.
- 15 S.M. Garcia et al., “The Ecosystem Approach to Fisheries: Issues, Terminology, Principles, Institutional Foundations, Implementation and Outlook,” FAO Fisheries Technical Paper no. 443 (2003), <https://www.fao.org/3/y4773e/y4773e.pdf>.
- 16 United Nations, “Full Texts of Contributions From Member States, United Nations Agencies, Programmes and Bodies, as Well as Other Intergovernmental Organizations to Fifteenth Round of Information Consultations of States Parties to the Agreement, Focusing on the Topic of Implementation of an Ecosystem Approach to Fisheries Management,” accessed Feb. 13, 2023, https://www.un.org/depts/los/convention_agreements/ICSP15/ICSP15contribution.htm; Northwest Atlantic Fisheries Organization, “Ecosystem Approach,” accessed Feb. 13, 2023, <https://www.nafo.int/Science/Frameworks/Ecosystem-Approach>.
- 17 Division for Ocean Affairs Law of the Sea, “United Nations Fish Stocks Agreement,” Article 18(3)(d).
- 18 *Ibid.*, Article 23(1).
- 19 *Ibid.*, Article 23(3).

For further information, please visit: [pewtrusts.org /internationalfisheries](https://pewtrusts.org/internationalfisheries)

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