



Policy Priorities for the Indian Ocean Tuna Commission

The Pew Charitable Trusts recommends that the Indian Ocean Tuna Commission (IOTC) takes several actions at its 20th Session in La Reunion, France to ensure sustainable fisheries management for highly migratory species, including tuna and sharks, and to prevent illegal, unreported, and unregulated fishing in the IOTC Convention Area.

Develop Management Procedures and Improve Gear Management for Tuna Species

Develop precautionary Management Procedures

Pew encourages the continued development of management procedures, also called harvest strategies for IOTC fisheries, as a means of strengthening science-based fisheries management. When implemented properly, management procedures should contribute to the conservation of the stocks, and the stability and profitability of the fishery. Over the past several years, the Commission and its Members have invested significant resources to enhance their understanding of management strategy evaluation (MSE).

Last year, IOTC adopted Resolution 15/10 on Target and Limit Reference Points and a Decision Framework for their development, calling for the results of the MSE process for skipjack and albacore to be presented to the Commission for consideration in 2016. This year, we recommend that the Commission carefully review the projected success of the candidate harvest control rules evaluated through this process. Based on these results, we urge the Commission to adopt robust harvest control rules for albacore and skipjack tuna. This would set an important precedent at IOTC and other tuna-based Regional Fishery Management Organizations (RFMOs). While the Indian Ocean albacore and skipjack stocks are neither overfished, nor subject to overfishing, establishing pre-defined management actions in harvest control rules would help to ensure that they remain at, or above, target levels.

End overfishing and rebuild vulnerable tuna stocks

The 2015 stock assessment for Indian Ocean yellowfin tuna concluded that the stock is overfished and subject to overfishing. Additionally, the stock is projected to collapse in 5 years under current fishing levels. The Commission must take immediate action to end overfishing and develop a robust rebuilding plan that will ensure the recovery of the yellowfin stock and the long-term sustainability of the fishery.



Improve Fish Aggregating Device (FAD) management

Currently, IOTC members fishing with FADs are required to submit management plans and information on FAD numbers (deployed, recovered, lost). FADs are a critical gear in the Indian Ocean. An estimated 10,500 to 14,500 FADs were deployed by vessels flagged to the European Union in 2013, according to a paper presented to the IOTC. Other fleets also deploy FADs, but a lack of data meant their deployments could not be estimated.ⁱ Last year, with Resolution 15/09, the Commission established an ad hoc working group on FADs to assess the consequences of the increasing number of FADs in the IOTC Convention Area, as well as the advances in FAD technology in tuna fisheries. Such a working group is crucial as a means to elucidating the environmental effects of FADs and informing management. We recommend that the FAD working group develop science-based limits for the deployment and use of FADs to minimize catches of vulnerable species, reduce unsustainable catches of juvenile tunas, and mitigate the contribution of FADs to marine debris. We also recommend establishing a more comprehensive system to accurately quantify and monitor FAD use that would provide data necessary to address compliance issues and conduct tuna stock assessments.

Adopt Conservation and Management Measures to Protect Sharks

Regulate all shark catch

Every year, about 100 million sharks are caught and killed in commercial fisheries, an unsustainable number. Whether this catch is unintended, unwanted, or highly sought after, the impact on ocean ecosystems demands urgent action. IOTC fisheries must not contribute to the global overfishing of sharks that has led to severe declines wherever they are found. If IOTC members are to continue to target sharks, or retain shark bycatch, the precautionary principle must be taken into account, and management measures must ensure that all shark catches in the IOTC Convention Area are sustainable.

Until measures are in place to ensure that the targeted and incidental catch of sharks is sustainable, their capture with fishing gear should be avoided and they should be released alive whenever possible. Gear that increases the likelihood of shark catch, such as wire leaders and shark lines, should be prohibited, depleted species should be fully protected, and further research should be undertaken to determine the best means of avoiding shark catch.

Prohibit retention of biologically vulnerable shark species, especially silky, hammerhead, and shortfin mako sharks

Silky sharks (*Carcharhinus falciformis*) are commonly caught in all IOTC fisheries. Between 2010 and 2014 an average of 4,088 tons of silky shark were reported to the



Indian Ocean Tuna Commission (IOTC) as landed annually, and the Scientific Committee has noted that maintaining or increasing effort will likely result in further declines in biomass, productivity, and catch per unit of effort (CPUE). At current effort levels, the stock status is at considerable risk. The IOTC Scientific Committee's report notes that "despite the lack of data, it is clear from the information that is available that silky shark abundance has declined significantly over recent decades." Of the ten most vulnerable shark species to purse seine and longline fishing gear, silky sharks ranked second and fourth respectively, as determined by the IOTC ecological risk assessment (ERA). According to the IUCN Red List, silky sharks are Near Threatened in the western and eastern Indian Ocean, as well as globally.

Fifty countries have pledged their support for global protections for the silky shark by proposing to list this species on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) at the CITES Conference of the Parties this September. An Appendix II listing would regulate international trade to sustainable levels, as well as complement and help enforce compliance with RFMO measures. Because of the continued population declines, silky sharks are in need of immediate protection. As such, IOTC should work to protect this vulnerable species by adopting measures to either regulate the number that can be caught or prohibit all retention of the species.

Hammerhead sharks (*Sphyrnidae*) are commonly caught as bycatch in longline and gillnet fisheries, and are targeted for their highly valued fins. Between 2009 and 2013 an average of 89 tons of scalloped hammerhead sharks were reported to the IOTC as landed annually, with the Scientific Committee noting the uncertainty of this figure due to the poor data provision on shark catches. The scalloped hammerhead is assessed by the IUCN Red List as Endangered in both the western Indian Ocean and globally. The FAO considers hammerheads to have an extremely low reproductive capacity and are one of the ocean's most vulnerable species. The Scientific Committee has noted that maintaining or increasing effort will likely result in further declines in biomass and productivity.

With the 2013 CITES listings now in force, IOTC must help Member States meet the Convention's requirements. Given the status and vulnerability of hammerhead sharks, the current lack of scientific advice to set sustainable catch levels and following the example of the International Commission for the Conservation of Atlantic Tunas (ICCAT), a precautionary prohibition on retention of all hammerhead sharks (*S. spp.*) should be adopted at this year's IOTC meeting.

Between 2010 and 2014 an average of 1,538 tons of shortfin mako sharks (*Isurus oxyrinchus*) were reported to the IOTC as landed annually. According to the IUCN Red List, shortfin mako sharks are Vulnerable to extinction in the western and eastern Indian



Ocean, as well as globally. The ecological risk assessment developed for sharks in the Indian Ocean also identifies the shortfin mako as the most vulnerable shark to longline fisheries, and the third most vulnerable shark in purse seine fisheries. The IOTC should work to protect this vulnerable species by adopting measures to regulate catches or prohibit all retention.

Strengthen Controls Against Illegal, Unreported, and Unregulated (IUU) Fishing

Effectively use VMS

Vessel monitoring systems (VMS) are an integral component of fisheries management and monitoring, control, and surveillance regimes. They have a central role in helping to combat IUU fishing in regulated fisheries, and VMS data provides valuable information for scientific stock assessments, particularly when data sets are provided frequently.

As of April 2016, CPCs should have adopted VMS for any vessel greater than 15 meters in length overall operating in the high seas within the IOTC Convention. Unfortunately, full compliance with this requirement has not yet been achieved.ⁱⁱ In addition, all vessels of any size 24 meters or greater and all vessels under 24 meters operating outside the jurisdiction of their flag state should also have VMS by April 2016. Any CPC that is not in compliance by this time is required to submit an implementation plan for their national VMS obligation within a maximum of 3 years. It is regrettable that information submitted by CPCs in 2016 does not indicate full compliance with such requirements either.

Recent advancements in technology and reductions in equipment and transmission costs have improved and expanded the functionality of VMS, allowing the system to be fully integrated into fisheries management arrangements. While the Commission should ensure that as of 2016 all CPCs are fully compliant with current VMS requirements, it should continue to work towards a strengthened VMS system that effectively supports the monitoring, control and surveillance efforts of CPCs and is conducive to improved fisheries management in the IOTC Area of Competence. In this regard, the Commission should initiate a process to establish a Commission VMS, which would centralize VMS data and support CPCs in their implementation of VMS requirements.

Enhance efforts to implement port state measures and ratify the FAO Port State Measures Agreement

IOTC members and the Secretariat have taken important steps to effectively implement Resolution 10/11 on port State measures. Since their adoption, port state measures have started to prove to be a cost-effective tool to curb IUU fishing in the Indian Ocean.



Member States should continue their efforts to use port controls, and be encouraged to join others who are working to ratify the PSMA and to implement it effectively after its entry into force.

Effectively implement the IMO number requirement to more easily identify and monitor vessels

As of 1 January 2016, all vessels that are 24 meters or greater and all vessels under 24 meters operating outside the jurisdiction of their flag state should be duly identified with the International Maritime Organization (IMO) number. This requirement is essential to ensure the effective monitoring and control of fishing vessels at sea and in port. The Secretariat has continued to improve the quality of the existing Record of Vessels, also in the context of the Consolidated List of Authorized Vessels (CLAV). However, as of now, the IOTC Record of authorized vessels does not indicate that all vessels mandated to have an IMO number have obtained this number. IOTC CPCs should take the necessary steps to ensure there is no further delay in complying with the IMO number mandate.

Keep the IUU vessel list up to date

Placing a vessel on IOTC's IUU vessel list serves as an essential step in deterring unacceptable practices in the Convention Area. The list's effectiveness, however, is diminished because under current rules IUU vessels can only be added to the list once a year. That allows some IUU vessels to operate unhindered until action is taken by the Commission at its annual meeting. On the other hand, IOTC has established procedures that permit delisting of vessels from the list on an intersessional basis. Procedures should be established so that vessels can also be listed on an intersessional basis. In addition, IOTC should take steps to ensure that the IUU vessel list is monitored regularly and updated whenever a vessel changes name, flag, or other identifying feature.

Support the FISH-i regional partnership in the Western Indian Ocean

The FISH-i Africa regional partnership of eight East African countries is aimed at analyzing integrated intelligence information and preparing enforcement actions against IUU fishing operators in the Western Indian Ocean. A pilot project was started in December 2012 and FISH-i Africa was fully established in May 2014. IOTC members and the IOTC Secretariat should continue to support this important initiative.

Ban transshipment at sea

Transshipment at sea continues to be used in the IOTC Convention Area as a way to avoid proper catch reporting and to launder IUU caught fish. IOTC should ban transshipment at sea, particularly for longline vessels, until it can be verified that these operations do not assist IUU fishing. This would require a robust monitoring system to guarantee full transparency and would include, but not be limited to, requiring observers



aboard offloading and receiving vessels and comprehensive oversight by the Commission of *all* transshipment operations in the Convention Area.

At a minimum, increase observer coverage to meet IOTC established requirements

IOTC Resolution 11/04 requires observer coverage on at least 5% of operations/sets for each gear type by the fleet of each CPC while fishing in the IOTC area of competence for vessels 24 meters or longer, and on vessels under 24 meters if they fish outside their Exclusive Economic Zone (EEZ). However, the actual coverage levels necessary for robust management decisions are likely much higher than 5%.

Due to the low level of current observer coverage, the quality of data from many IOTC fisheries is poor and introduces much uncertainty into management decisions. CPCs should immediately increase observer coverage to levels consistent with Resolution 11/04. In addition, IOTC should conduct a review of what level of observer coverage is currently being achieved and what level is necessary to reduce uncertainty in management decisions.

Combat IUU fishing through greater transparency and accountability

IOTC has taken important steps to improve compliance with its resolutions to combat IUU fishing. However, illegal practices continue. To effectively manage fisheries and have effective control measures, IOTC must require complete transparency from all members and accountability to existing commitments. To this end, it is essential that Members comply rigorously with their reporting obligations. A review of compliance tables submitted in 2016 indicates that on average, 29% of members fail to submit reports. An additional 10% fail to comply and 12% partially comply with key measures such as IMO numbers, VMS and Port State Measures requirements.ⁱⁱⁱ Members must not compromise the effectiveness of IOTC objectives and need to prioritize the provision of accurate and timely compliance and implementation reports.

Ensure transparency and accountability of the Commission through the Performance Review process and modernize the IOTC Convention text

In 2006, the United Nations' Resumed Review Conference urged RFMOs to undertake performance reviews, evaluating their performance and identifying areas of improvement against a set of transparent criteria based on the United Nations Fish Stocks Agreement and examination of other relevant instruments and ensuring reviews were conducted by independent evaluators. Since this directive, the IOTC has conducted two performance reviews (in 2009 and 2015) aimed to identify weaknesses and gaps in the structure of the Commission and to highlight necessary actions that must be taken. While there has been annual monitoring of progress on recommendations made by the Performance Review



panels, a number of recommendations from the 1st Performance Review have still not been addressed by the Commission, the Secretariat, or the subsidiary Committees. The Commission must make more rapid progress towards addressing high priority recommendations generated by the Performance Review panels, particularly those that have been outstanding since the 1st Performance Review was completed in 2009.

Modernize the IOTC Agreement

The IOTC must modernize its Convention Text, in order to better address conservation and management needs in the IOTC Convention Area. One of the outcomes of the Review Panel of the 2nd Performance Review was that an ad-hoc Working Party on the Modernization of the IOTC Agreement should be established. An important first step must be to develop terms of reference for such a Working Party. Such a modernization of the Agreement would, among other things, allow for the incorporation of modern principles in fisheries management (such as the precautionary approach and ecosystem-based management) and enable participation of all fishing parties fishing in the IOTC Convention Area.

ⁱ Alain Fonteneau and Emmanuel Chassot, “Managing Tropical Tuna Purse Seine Fisheries Through Limiting the Number of Drifting Fish Aggregating Devices in the Indian Ocean: Food for Thought” (paper presented to the Working Party on Tropical Tunas of the Indian Ocean Tuna Commission, Bali, Indonesia, Nov. 15-19, 2014), <http://www.iotc.org/documents/managing-tropical-tuna-purse-seine-fisheries-through-limiting-number-drifting-fish>.

ⁱⁱ Implementation Reports and Compliance reports submitted to IOTC’s Compliance Committee as of 3 May 2016, <http://www.iotc.org/meetings/13th-session-compliance-committee-coc13>

ⁱⁱⁱ Depending on the measure, compliance rates may differ: for example, full compliance with VMS mandates is at 48%; with IMO number mandates at 37%, and with port state measures (PSMs) at 15%. Partial compliance with VMS and IMO numbers is at 7,5%, and with PSMs at 22%. An average of nearly 15% of members report that the abovementioned measures or non-applicable. See Compliance reports submitted to IOTC’s Compliance Committee, as of 3 May 2016, <http://www.iotc.org/meetings/13th-session-compliance-committee-coc13>