LDAC OPINION ON BEST PRACTICES FOR TROPICAL TUNA PS FISHERIES
WITH SPECIAL CONSIDERATION TO FAD MANAGEMENT
For adoption of LDAC Executive Committee on 22 May 2019
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Aim of this paper
The LDAC recommends the promotion and adoption of the following best practices for the purse seine fisheries. Such practices will greatly contribute to the sustainability of these fisheries and also could be used for reference as objective indicators for developing EU/international legislation (RFMOs) on this subject.

Background
As over 40% of the global tropical tuna catch is caught using floating objects, including Fish Aggregating Devices (FADs), specific consideration is given to the management of Fish Aggregating Devices (FADs) based on the reports of the PEW Global FAD Science Symposium held in Santa Monica (20-23 March 2017), the Joint Tuna RFMO meeting held in Madrid (19-21 April, 2017) and ISSF reports or Skippers Guidebooks. While FADs have benefits for purse seine vessels harvesting tropical tuna, they have large impact on tuna stocks and the broader marine ecosystem: higher bycatch of non-target species like sharks, sea turtles and other marine life, uncontrolled drift of lost FADs and beaching of a proportion of the FADs used in all purse seine fisheries in coral reefs which can be considered as VMEs (vulnerable marine ecosystems).

For the above mentioned reasons, the following best practices are proposed by the LDAC:

Governance and global FAD management
- Be fully compliant to RFMO, flag states and coastal states legislations
- Support Management Strategy Evaluation research, to account for the effects of all fishing gears contributing to fishing mortality and other analyses that support RFMO management objectives
- Support the adoption of harvest strategies (including monitoring mechanisms)
- Promote the adoption of management measures for the purse seine fishery and other major gear types that will allow the stocks to fluctuate around levels consistent with target reference points, as agreed by each RFMO
- Promote the adoption at RFMOs of science-based capacity limits for all the components of the fishery and modes of fishing, including limits on the number of FADs deployed and authorized FAD designs Envisage impact analysis of measures to monitor FAD fishing such as science-based FAD limits
- If a target stock is overfished, support the adoption of a rebuilding plan that is consistent with the rebuilding timeframes defined by RFMOs
- Support that RFMOs collect data on the number and use of supply vessels, including identifying which particular PS vessels each support, and the number of FADs being deployed and serviced by such vessels

**Sustainability (catch and bycatch species)**
- Monitor closely the proportion of juvenile in YFT and BET catches
- Promote research on the effect of juvenile catch on the YFT and BET stock dynamics
- Comply with all measures of stock management or rebuilding plan such as quota, spatial closure or capacity management and provide information to scientists and managers to improve such plan and/or compliance to their measures
- Provide proper and exhaustive data on discards (see paragraph on observers)
- Promote full retention and utilization of all catches of target species.
- Promote research on primary and secondary species so as the contribution of each fishery to overall fishing mortality of each stock is estimated
- Support any efforts (by the RFMO and at the national level), based on the best scientific evidence available, to maintain or restore populations of harvested stocks at above levels that can produce the maximum sustainable yield, as qualified by relevant environmental and socio-economic factors.

**Bycatch and incidental catch mitigation**
- Use exclusively non-entangling FADs / prohibit the use of entangling FADs
- Develop FAD recovery policies/actions to minimize contribution of FADs to marine debris, including through the use of arrangements to alert coastal countries of derelict FADs or the removing from the sea of entangling FADs when encountered
- Prohibit intentional setting on whale sharks & cetaceans
- Implement best practices to release unwanted catch alive (including sorting practices that allow for quick live release)
- Support mandatory adoption of best practices by the flag states and all RFMOs (such those contained in the ISSF Best Practices and those already adopted by certain RFMOs)
- Support research on bycatch mitigation and improvement of selectivity
- Prohibit shark finning
- Report interactions and fate of Endangered, Threatened and Protected (ETP) species releases
- For ETP species whose catch in the purse seine fishery is not negligible compared to the total catch (e.g. silky sharks), implement further mitigation efforts such as implementing spatial measures (i.e. avoiding hotspots), avoiding sets on FADs with small tuna aggregations (for instance, science based reference tonnage) and releasing sharks alive from the net
- Facilitate research that addresses mitigation of ETP species incidental catch and voluntarily adopt best practices when these become known.
Ecosystem and habitat preservation

- Support limits on the overall number of FADs used by purse seine fisheries in each RFMO based on best available science
- Promote research on the use of biodegradable FADs
- Support efforts to assess the impact of FAD beaching events on VMEs, especially coral reefs in the different ocean regions
- Report any information necessary to monitor/reduce the risk of FAD beaching in coral reefs
- Support the implementation of management measures preserving the ecosystems and habitats.

Compliance monitoring

- Demonstrate compliance with any management measures applicable on PS fisheries (e.g. allow flag states to have access to non-aggregated fishery statistics, FAD data and observers’ data, facilitate and promote systematic sampling of landings, support use of market data as it was done with Ghana (canneries information) or with BFT (Japanese import data)...)
- Support global compliance by all fleets (gears/countries).
- Evaluate the efficiency of management measures on FADs and its impact on the recovery of relevant species

Socio-economic considerations

- Examine whether by catch should be kept or landed, without causing conflicts with local fishers, in order to reduce waste
- Evaluate the socio economic effects of management measures on FADs and its impact on the recovery of relevant species

Transparency and research

- Comply with flag state and RFMO requirements for fisheries statistics (mainly species composition and catch/bycatch/discards by size and set type and number of FADs used)
- Provide regularly all other data required by managers and/or scientists; in particular, FAD-related data (type/structure of FADs, position of FADs, FAD-echo-sounders data...) with appropriate time lags to ensure confidentiality.
- Support research contributing to the best knowledge biology, dynamics and exploitation of tuna and PS bycatches
- Support an equal level of monitoring for all other fisheries and gear types
Aim for a 100% trips coverage by scientific observers (including for vessels engaged in ancillary activities) either embarked or working from recorded electronic observation; observation will in particular contribute to establish proper and systematic data on bycatch and discards composition and incidental catch mortality mitigation.