

Zürich, September 2021

Position paper on required improvements in industrial fisheries and fishing gear

1. Calling to the UN, the EU and all RFMOs for reforms

1.1 Ecosystem based, holistically sustainable fisheries

- Sustainable fisheries must consider the entire ecosystem and not just the target species. Specifically, a reduction of bycatch and a minimisation of the impacts of fisheries on the marine ecosystems must be the central focus of an ecosystem based fishery management.
- Only such an ecosystem-based fishery management will result in long-term sustainability. Therefore, there is no alternative to a comprehensive reform of today's fisheries if we want to restore healthy marine ecosystems and prevent a major loss of marine species. Only healthy oceans, teeming with life and full of biodiversity can act as a carbon sink to limit global warming and are an essential prerequisite if we are to secure food supply for the future.
- Sustainable fishing quotas must consider the complete ecosystem and apply a precautionary principle allowing the fastest possible recovery of fish stocks.
- However, some particularly harmful fishing methods will never be compatible with a transition to ecosystem-based sustainable fishing management and will therefore have to be phased out completely.
 - Bottom trawling
 - Deep-sea fishing below 400 m depth

1.2 Selective fishing methods and Marine Protected Areas (MPAs)

- All other fishing methods must demonstrate improved selectivity and must not destroy or negatively impact marine ecosystems.
- If some fishing activities are still to be permitted in MPAs, only truly selective fishing gear such as "pole & line" or hand lines should be allowed.
- The percentage of strongly protected areas prohibiting all extraction (No take zones) must increase globally to at least 30% of the ocean surface by 2030 and comprise of coastal regions and large parts of the High Seas including connecting corridors.

1.3 Reduction of "unwanted" bycatch

- Unwanted bycatch must be reduced progressively via improved bycatch avoidance strategies and by testing and subsequent implementation of technical improvements.

- All unintentional bycatch **must be fully documented and reported**. If bycaught animals are still alive, they must be released immediately, applying the best available measures and species-specific handling procedures to release them safely to maximise the probability of their post-release survival; such best practices already exist for all fishing methods and bycatch species (e.g. sharks, marine mammals, turtles, seabirds) but should be improved continuously.
- Especially the bycatch of threatened species must be reduced to an absolute minimum, with **bycatch of critically endangered species approaching zero**.
- For all species classified as threatened by the IUCN and/or protected by national, international, or multilateral agreements, effective management plans have to maintain or rebuild those populations to pre-industrial levels (or at least to pre-1970 population sizes).
- Recovery plans must be defined and implemented for both target species and **all species impacted by fishing activities** as "observed bycatch", "unobserved bycatch", ghost fishing, or other ecosystem impacts from fishing activities.
- All recovery plans for those stocks must meet the following criteria:
 - The defined measures must allow the recovery of the stock with a high probability and within the shortest possible period of time.
 - The defined percentage of probability for recovery must take species-specific biological characteristics into account
 - Following the recovery of the stock, long-term sustainable management measures need to be implemented.
- In the absence of scientific reference points or significant models, the precautionary principle shall always be applied and agreed management measures shall assume a "worst case" scenario for the species.
- **Maximum catch limits and mortality rates must be defined for each bycatch species and each region**. These mortality limits must not be exceeded and, in the case of endangered or critically endangered species, either all fishing activities in an area or a ban of certain fishing gear must be imposed if predefined mortality rates are exceeded.
- If "unwanted" bycatch is still marketed generating commercial benefit for the fisheries, total allowable catch (TAC) quotas or retention bans must be defined for the species and monitored adequately to prevent overexploitation.

1.4 Improved transparency and monitoring

- All industrial fishing activities must demonstrate high to very high levels of transparency and monitoring. This can be accomplished by a **combination of human observers and electronic monitoring systems (EMS)** to document, both catch and bycatch, the condition of the bycatch upon release, and to ensure compliance without putting observers at risk.
- All fishing activities must be transparently traceable at all times and all vessels must compulsorily transmit their position via AIS and VMS systems at all times.
- Illegal, Unreported and Unregulated (IUU) fishing must be effectively combated internationally and by all Regional Fisheries Management Organisations (RFMOs), imposing severe penalties for violations throughout all RFMOs.

- Sharks and all other cartilaginous fish (rays, chimaeras) must be landed with fins naturally attached; the removal of fins at sea shall not be permitted under any circumstances and as soon as separate fins are detected on board of a vessel or in port, this is considered evidence that a violation of the finning ban has happened.
- Trans-shipment of sharks at sea is prohibited and all trans-shipment activities must be 100% monitored by observers and an established EMS (electronic monitoring system).

2. Minimum requirements requested for improvement of specific fishing gear and fishing practices

These requirements for specific industrial fishing gear and fishing practices have been defined for now for those that - intentionally or unintentionally - affect sharks in particular. In the future, however, this list will be extended to include additional fishing gear and practices and will then also include long-term objectives in addition to the short-term improvement measures provided now for longline fishing and purse seine fishing.

2.1. Minimum improvements required for longlining - to be implemented by the end of 2022 at the latest.

- Limit line length and number of hooks per set following scientific recommendations for the region
- Use of technical modifications to avoid shark bycatch and improve shark survival: e.g., by the use of
 - Monofilaments
 - Circle hooks
 - Prohibition of wire leaders ("shark wires" or "shark lines").
- Avoid the use of squid as bait in order to reduce shark bycatch.
- Closure of "pelagic hot spots" for fishing - spatial and/or temporal closures.
- Proportion of independent human observers must be increased to at least 20%.
- 100% monitoring in port of all shark landings.
- Introduction of a comprehensive EMS system for all fleets in addition to human observers.
- Mandatory availability of equipment and permanent transmission of AIS and VMS signals.
- Reporting of total bycatch including "live discards" and "dead discards" per species.
- If possible, all bycaught sharks still alive at the time when hauled to the boat should be released immediately, by cutting the lines as closely to the animal as possible without bringing the animals on board. If sharks have already been brought on board the animals shall be released as quickly and gently as possible, using best practices for their release while also ensuring the safety of the crew.

2.2 Minimum improvements required for purse seine fishing when using drifting fish aggregating devices (dFADs) - to be implemented by the end of 2022 at the latest.

2.2.1 dFAD Management

- Scientifically based limits on the number of dFADs must be introduced through management measures including limits on total number of dFADs per area, number of dFADs launched annually per fishing vessel / fleet and number of fishing activities ("sets") using dFADs.
- Implementing a fully transparent dFAD recovery and retrieval policy to reduce marine litter and the impacts from beaching of lost dFADs.
- Effective and enforceable closures to all fishing operations with dFADs shall be implemented, including temporal and spatial closures to protect e.g. hotspots for ETP species and megafauna, and shark nurseries; during these periods all dFADs shall be removed from the water and not allowed to continue drifting.
- Introducing rules for possession and ownership of dFADs, ensuring lifetime ownership and non-transferable responsibility for all damage caused by dFADs.
- 100% monitoring of industrial fishing vessels and all activities (including transshipment and landing) through a combination of human observers and electronic monitoring systems.
- Near real-time reporting of electronic data on the use of drifting FADs (transponder tracks from dFAD buoys and echo-sounder estimates of biomass), independent verification and reporting of this data.

2.2.2 Bycatch reduction

- From the end of 2021, only such dFAD designs without any net elements and/or meshing as part of the raft or the underwater structure (tail) may be used. This is essential to ensure that dFADs do not pose any risk of entanglement throughout the complete lifetime to sharks, marine mammals, or sea turtles; the use of simpler/smaller dFAD structures is encouraged.
- By end of 2022, all structures that do not meet these requirements must be removed from the water (proof of their removal must be provided before new FADs can be used).
- From the end of 2022, only fully biodegradable materials may be used for the construction of dFADs; these materials must be 100% biodegradable within 12-18 months under normal environmental conditions.
- Fisheries must use science-based, safe handling and release practices for sea turtles, sharks, rays and marine mammals. New tools/technologies for the safe live release of endangered species must be tested as soon as they become available (e.g., mandatory installation/retrofitting of purse seine fishing vessels with additional conveyor belts for the fast and gentle return of all bycatch from deck to the sea).
- Development and implementation of improved bycatch avoidance measures for silky sharks and other non-target species (e.g., sea turtles) e.g., verifying the level of potential bycatch of threatened species under a dFAD prior to setting the nets, the use of camera systems in combination with echo sounders or other appropriate technologies as they become available.
- Prohibit the deliberate setting on whale sharks and whales.

- Introduce science-based mortality limits for threatened bycatch, taking into account the collective impact of the entire fishery in an area on these species, and set mandatory, species-specific targets for the reduction of this bycatch for dFADs, applying the precautionary principle. This should start as early as 2022 for silky sharks and oceanic whitetip sharks, as these species are particularly affected as bycatch by this specific fishing method.