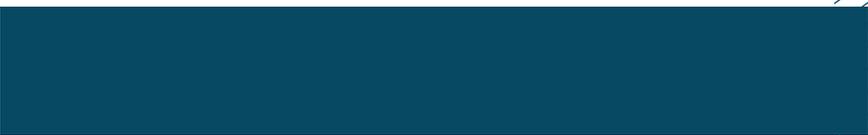


ANNEX

**CRITICAL REQUIREMENTS
NECESSARY TO IMPROVE
MARINE STEWARDSHIP COUNCIL
PRINCIPLE 2**





CRITICAL REQUIREMENTS TO IMPROVE MARINE STEWARDSHIP COUNCIL PRINCIPLE 2

These required improvements emerge from research and analysis undertaken by non-government organizations and academics focused on marine conservation and seafood certification and are aimed at improving Principle 2 of the MSC Standard. They stem from our involvement as stakeholders in a range of MSC certifications, which have given rise to concerns with the MSC Standard and its application.

To uphold the scientific rigour, transparency, and original intent of the MSC label, the undersigned organisations and individuals call on the MSC to initiate the following critical improvements to P2 of the “MSC Certification Standard” and the “Process of Certification” for urgent implementation by the end of 2018 at latest.

1. TO ENSURE THAT THE FULL ECOLOGICAL IMPACTS OF A CERTIFIED FISHERY ARE ASSESSED AND IMPROVED AND FISHERIES ARE NOT WASTEFUL OF MARINE LIVES AND RESOURCES:

1.1 Cumulative impacts of all MSC fisheries and non-MSC fisheries on all species caught (including main and minor bycatch and retained species) shall always be assessed when considering impact, mortality, and whether a fishery is hindering recovery. Regardless of national or international catch limits, cumulative impacts on all “Endangered, Threatened, or Protected” (ETP) species and on all IUCN ‘Threatened’¹ species (even when below 2% of the catch) shall be fully assessed applying a precautionary approach and using the best available science.

1.2 A fishery shall not enter assessment if unwanted bycatch levels of retained and discarded fish species exceed a predetermined, risk based maximum percentage of the Unit of Assessment (UoA) by weight.

1.3 Certified fisheries shall demonstrate progressive reduction of unwanted bycatch and discards towards a zero goal. This applies especially but not exclusively to marine mammals and ETP species. Annual Surveillance Audits shall

demonstrate robustly that mitigation measures have resulted in a reduction of unwanted bycatch levels as agreed during the setting of certification conditions.

1.4 Fisheries that deliberately target marine mammals or ETP species as a direct fishery or as a means to locate other species (i.e. the encirclement of cetaceans or whale sharks to locate tuna) must not be allowed to enter the certification process.

1.5 Shark finning precludes a fishery from entering the certification process. Before certification, fisheries that interact with sharks shall have in place a ‘fins naturally attached’ policy with no exceptions and must provide proof of implementation.

2. TO ENSURE THAT THE ENTIRETY OF THE CERTIFIED FISHERY METHODS, GEAR, AND CATCH ARE SUSTAINABLE AND THAT ALL “MAIN SPECIES” OF A CATCH ARE MANAGED EQUALLY TO THE TARGET SPECIES:

2.1 The majority of fishing techniques in a UoA must be assessed for certification. Before recertification MSC fisheries shall demonstrate that all remaining fishing techniques have improved to the Standard.

1. “Threatened” according to IUCN Red List of Threatened Species comprises “Critically Endangered”, “Endangered”, and “Vulnerable” species

2.2 All species identified as “main” in a fishery during certification whether target, retained, discarded, or unwanted bycatch species shall meet the Principle 1 management standard.

2.3 For target species and all species identified as “main” (> 5% of total catch, or > 2% if the species is less resilient) overfishing ($F > F_{msy}$) is forbidden. If fishing mortality exceeds the maximum sustainable yield the certification shall then be suspended immediately.

3. TO ENSURE THAT MSC CERTIFIED FISHERIES DO NOT DESTROY SEAFLOOR BIODIVERSITY, AND THAT THE MSC STANDARD IS CONSISTENT WITH INTERNATIONALLY ACCEPTED FISHERIES MANAGEMENT STANDARDS, CERTIFIED FISHERIES SHOULD BE REQUIRED TO:

3.1 Bottom fisheries taking place in areas where Vulnerable Marine Ecosystem (VMEs) are known or likely to occur must not be allowed to enter certification process.

3.2 All benthic habitat impacts of a certified fishery should be reversible within a timeframe of < 10 years and recovery rates be well understood. To avoid and mitigate ‘significant adverse impacts’, at least 50% of the habitat type in a region should not be impacted (area closure) by either MSC fisheries or other non-MSC fisheries in the area.

4. TO ENSURE THAT THE SUSTAINABILITY CLAIM OF MSC CERTIFIED FISHERIES IS EVIDENCE BASED AND TRANSPARENT WITH THE DATA USED FOR DECISION MAKING IN ASSESSMENT AND AUDIT OF FISHERIES:

4.1 Prior to entering assessment, the extent and quality of data on retained and discarded catch and incidental bycatch must be defined using a transparent, risk-based approach informed by scientific advice, taking into consideration inter alia gear type, species and catch size.

4.2 Upon request, all registered stakeholders must be provided access to AIS/VMS data (if in use by the fishery) and to all electronic/human

observer data (including raw data) of the fishery. This should be available at time of site visits or publication of the desk review report (in new simplification process) or, at the latest, by the time of publication of the Public Certification Draft Report (PCDR).

5. TO ENSURE THAT CONDITION-BASED CERTIFICATION IS RESOLVED PRIOR TO RECERTIFICATION:

5.1 Conditions closed at surveillance audits should have an option, upon request, for peer review and stakeholder involvement, to ensure impartiality. There currently remains no mechanism to object to or review CAB decisions published in Annual Surveillance Audit Reports. This must be changed.

5.2 All conditions must be fulfilled during the certification period in order for a fishery to be eligible for recertification.

6. TO ENSURE THAT THE CERTIFICATION ASSESSMENT AND AUDIT PROCESS ARE IMPARTIAL:

Assessments and audits of fisheries against the MSC Standard need to be performed by impartial CABs who shall adhere to the precautionary principle. To avoid real or perceived conflict of interest CABs shall neither be selected nor paid directly by the fishery being assessed.

7. THE MSC MUST PROACTIVELY UPHOLD THE SCIENTIFIC RIGOUR AND GOALS OF THE PROGRAM:

The MSC must be more proactive and engaged in reviewing and the quality control of the process, substance, and outcome of assessments. In cases where there is an obvious, urgent problem (i.e. scientific warnings on habitat concerns, ETP issues) the MSC shall be more proactive and engaged in ensuring that the issues are resolved in a timely manner or otherwise certification has to be denied or suspended.

EXAMPLES:

THESE MSC CERTIFIED FISHERIES HAVE BEEN WIDELY CONTROVERSIAL AND CONSIDERED UNSUSTAINABLE BY MANY STAKEHOLDERS. THEY DEMONSTRATE THE IMPERATIVE FOR THE CHANGES CALLED FOR ABOVE:

NEW ZEALAND BOTTOM AND MID WATER TRAWL HOKI FISHERY

<https://fisheries.msc.org/en/fisheries/new-zealand-hoki/@assessments>

MSC certification of the New Zealand hoki fishery has been a highly controversial since the first assessment process in 2001. Despite being re-certified by MSC twice since, the hoki fishery has ongoing and increasing levels of bycatch of Salvin's albatross in the trawl nets at a level that is likely to be preventing populations from recovering and may be causing further decline. While there have been improvements to the fishery over the years these have been insufficient to ensure the certified fishery is not negatively impacting threatened and protected species. The Salvin's albatross is endemic to New Zealand and was listed by the country as 'critically endangered' in 2013. The risk from the hoki trawl fishery has been assessed as 'high risk'. The estimated capture of all seabirds from observed data in the hoki fishery has continued to increase over the last few years, when it should be declining if effective management interventions were being implemented. An increase in net captures in the hoki fishery makes it the main cause of death for seabirds, although seabirds are also killed by striking warp lines. On top of this, the species is also impacted by the long line fishery targeting ling, which is also MSC certified. The combined impact of these trawl and longline MSC certified fisheries, and likely also the individual impact of the hoki fishery alone, are likely to be preventing the recovery of this critically endangered albatross.



NORTH SEA DREDGE AND BOTTOM TRAWL FISHERIES CUMULATIVE IMPACT

<https://fisheries.msc.org/en/fisheries/north-sea-brown-shrimp>

<https://fisheries.msc.org/en/fisheries/dfpo-denmark-north-sea-plaice/@view>

In assessment: Joint demersal fisheries in the North Sea and adjacent waters:

<https://fisheries.msc.org/en/fisheries/joint-demersal-fisheries-in-the-north-sea-and-adjacent-waters/@view>

In the North Sea, more than 25 fisheries with together more than 1000 vessels that operate with dredges or bottom trawls are already MSC certified. These fisheries target species including mussels, cockles, shrimps, flatfish and whitefish (e.g. cod, haddock, saithe). Dredge and bottom trawling are forms of fishing, practiced worldwide, that involve dragging nets along the seafloor. Heavy equipment is used to hold the net open and, in some cases, designed to actively bulldoze the seafloor. For the North Sea, an ecosystem model showed that the bottom trawl fleet reduced benthic biomass and production by 56% and 21%, respectively, compared with an unfished situation. In particular, the biomass and production of benthic infauna and

epifauna has been reduced dramatically. As the importance of the seafloor came to be recognized, the European Union agreed to establish an ecologically coherent network of well managed marine protected areas (MPAs). It was hoped the MSC certification process would support and accelerate the critically needed protection and areas for recovery. Instead many of the MSC certified fleets continue operate in core zones of MPAs and have an enormous cumulative trawl footprint. As well, many of the MPAs that are being fished in by MSC certified bottom fisheries have no comprehensive management plans in place yet. Through two objection processes to MSC certifications, “site agreements” with two MSC fisheries (Limfjord Blue mussel and North Sea Brown shrimp) were negotiated. However, these two site agreements as well as the other fisheries that voluntarily stopped fishing in the most sensitive areas of some MPAs (e.g. Ekofish Group, Osprey Trawlers, Denmark cold water prawn) now have a competitive disadvantage compared to the other MSC certified fleets that continue to fish in the same areas. The MSC has not required other MSC overlapping MSC fisheries follow the same closures.

NORTH WEST ATLANTIC CANADA PELAGIC LONGLINE SWORDFISH FISHERY

<https://fisheries.msc.org/en/fisheries/north-west-atlantic-canada-longline-swordfish/@@view>

The North West Atlantic pelagic longline fishery for swordfish was certified in 2011 after a lengthy objection process and recertified in 2017. Pelagic longline gear is a line up to 50km long with between 1000 – 1500 baited hooks floated near the surface of the ocean. While targeting swordfish, the fishery hooks many other endangered and threatened species. To land about 20 000 swordfish, the fishery catches more than 100 000 blue sharks per year that are not kept – the blues are cut off the line with a 30% rate of death. The fishery also catches up to 1200 endangered loggerhead sea turtles a year, cutting them off the line with varying degrees of injury. Lack of full information on the numbers and health of the turtles has been identified as a threat to population recovery and management for many

years, however the MSC process has not required any increase to the 5-10% of trips observed or that the fishery participate in research. The short fin mako shark that a new science assessment has shown to be at critical population levels as well as the endangered porbeagle shark continue to be caught in the fishery. The few measures that have been introduced by the fishery has not decreased the numbers of these endangered animals being hooked. MSC certification does not require this fishery to reduce the disproportionate amount of ‘unwanted non-target’ animals.



NFA NORWEGIAN LUMPFISH GILLNET FISHERY

<https://fisheries.msc.org/en/fisheries/nfa-norwegian-ling-tusk-and-nfa-norwegian-lumpfish/@@view>

The NFA gillnet fishery for lumpfish takes place close to the Norwegian shoreline in the three most northern counties of Norway: Nordland, Troms and Finnmark and was certified in October 2017. The fishery targets egg carrying female lumpfish at their spawning sites on the coast and in the fjords during spring. The fish are gutted, the roe (eggs) extracted and the carcasses to a large extent discarded at sea. This means that up to 85% of the caught biomass is wasted although lumpfish meat is suitable for human consumption. Additionally, based on scientific research and experience of similar fisheries, there is concern that there is significant negative impacts on larger animals like shark, rays, marine mammals and diving seabirds that can become entangled in the nets. The fishery passed MSC certification,

however, since there are no actual records of seabird and marine mammal bycatch in this lumpfish fishery because mandatory reporting does not apply to the smaller vessels (< 11m) in Norway. A very similar fishery (ISF Icelandic lumpfish) was recently suspended from MSC certification (December 2017) due to improved data collection of marine mammals and seabirds bycatch that showed unacceptable levels.



Photo: Derek Keats

MAINE AND EASTERN CANADIAN CRAB AND LOBSTER TRAP/POT FISHERIES

<https://fisheries.msc.org/en/fisheries/gulf-of-st-lawrence-snow-crab-trap/@@view>

<https://fisheries.msc.org/en/fisheries/gulf-of-maine-lobster-fishery/@@view>

The North Atlantic right whale is critically endangered with less than 460 individuals remaining. While there was improvement in the population after whaling was banned, the population has been declining again since 2011 due to fishing gear entanglement and strikes by ships. At the same time, all crab and lobster trap and pot fisheries on the East Coast of Canada and Maine that contribute to entanglements were certified by MSC one by one. While ship strikes have decreased significantly after imposed measures on the shipping industry, the rates of entanglements with fishing gears has steadily increased since the mid 1990s. Now 85% of North Atlantic right whales show entanglement scars. Research has shown that females are disproportionate dying due to entanglement and

their ability to reproduce has drastically declined. If the trends continue, there will be no breeding females alive in less than 20 years – meaning the population will be functionally extinct. In 2017, a total of seventeen North Atlantic right whales were found dead, nine of which were due to entanglements in fishing gear. At least four of those were entangled by crab fisheries that were in the midst of being recertified by MSC. Even before this huge mortality summer, the crab gear had been found on 3 carcasses in the previous two fishing seasons. Despite being listed as endangered in Canada and the US for more than a decade, comprehensive management plans or mitigation requirements have yet to be put in place in the fisheries and despite knowing the risk – there has not been a comprehensive tracking of the whales and the fishing gear overlap. The lack of data collected on when and where exactly the whales are getting entangled meant that when these fisheries were assessed by MSC – they showed no impact. This is despite the fact that the entanglements must be coming from these fisheries. Now, following the significant mortality events for North Atlantic right whales in 2017, there is a crisis and scramble to catch up on years of recommended action plans that remained underfunded or only on paper in both the US and Canadian governments and fleets. For the North Atlantic right whale every death contributes to the decline towards extinction at this point. The fisheries remain MSC certified.



Photo: NOAA

PAST NORTHEASTERN YELLOWFIN AND SKIPJACK TUNA PURSE SEINE FISHERY

<https://fisheries.msc.org/en/fisheries/northeastern-tropical-pacific-purse-seine-yellowfin-and-skipjack-tuna-fishery>

The Pacific Alliance for Sustainable Tuna (PAST) Northeastern Tropical Pacific Purse Seine yellowfin and skipjack tuna fishery received MSC certification in September 2017. The fishery involves the deliberate targeting of dolphins by purse seine boats to find tuna. As a result of this fishing method, dolphins are killed and injured and thrown back to the sea, and research has shown that this type of fishing has also negatively impacted both dolphin birth rates and calf survival rates. As noted in an objection to the PAST fishery (overturned), there have been no fishery-independent dolphin surveys conducted in the area since 2006; certain depleted dolphin species have not recovered, and at least one stock (the western/southern offshore spotted dolphin) may be in decline. The fishery is currently under an expedited audit, in part due to concerns regarding fishing by the Mexican tuna fleet within a Marine Protected Area.



Photo: NOAA

THE PNA SKIPJACK AND YELLOWFIN PURSE SEINE FISHERY

<https://fisheries.msc.org/en/fisheries/pna-western-and-central-pacific-skipjack-and-yellowfin-unassociated-non-fad-set-tuna-purse-seine/@@view>

The Parties to the Narau Agreement (PNA) skipjack and yellowfin fishery is the largest purse seine tuna fishery in the western and central pacific with an annual catch of more than 1.2 million metric tons. It was first certified in 2011 and is currently undergoing recertification for approximately half of its catch volume. This part of the catch is caught in unassociated sets or ‘free school’ sets, i.e. without setting around Fish Aggregating Devices (FADs). FAD fishing is when an floating object is set in the ocean that schools of fish will congregate around, making it easier to find and encircle whole schools of tuna. There tends to be high levels of bycatch of other animals like sea turtles, sharks, rays, and mammals that also aggregate with the tuna. The PNA tuna ‘free school’ fishing sets have relatively low bycatch rates and pass MSC certification. However, the same vessels, during the same trip and mostly even on the same day also catch tuna by setting on drifting FADs. This part of the catch resulted in a bycatch of approximately 68,000 of mostly juvenile silky sharks in 2016 based on observer reports. An even higher, unknown number of sharks also die following entanglement in the estimated 80,000 drifting FADs in the area which often get lost and eventually also beach onto coral reefs and other sensitive marine habitat creating significant cumulative impacts. Since this part of fishing activities is however not part of the MSC certification, there is neither a requirement to record this bycatch nor to implement measures to reduce the overall amount of bycatch over the period of certification. Furthermore, there were still more than 300 instances of shark finning reported by observers in 2015 – more than 3 years after the fishery had been MSC certified. No “fins attached policy” has been adopted or has been proposed for recertification.

ECHEBASTAR INDIAN OCEAN SKIPJACK PURSE SEINE TUNA FISHERY

<https://fisheries.msc.org/en/fisheries/echebastar-indian-ocean-purse-seine-skipjack-tuna/@@view>

Pesqueras Echebastar S.A. catches tuna in the Indian Ocean with 5 large purse seine vessels (75+m) that fish with sets associated with fishing aggregation devices (FADs) and with ‘free school’ sets that are not using FADs to attract the fish schools. The fishery’s initial certification attempt was stopped after a successful objection by the WWF. In January 2018, the fishery has now reached the final stages of its second certification attempt – it will be certified for both FAD sets and ‘free school’ sets, making it the first ever MSC certification for a fishery using FADs, a controversial fishing technique due to high bycatch of other animals. In 2016, less than 15% of all sets were free school sets, the majority is caught with FADs – yet, no precautionary approach (or even the Risk Based Framework (RBF) was applied for assessment despite the high risk of lost FADs impacting vulnerable coral reef habitats and the high bycatch rate of mostly juvenile silky sharks. The fishery catches thousands of vulnerable silky sharks and there is no stock assessment available for the Indian Ocean and only about 30% of the observer data for the time period of 2014 – 2016 was available or processed. The information that was available was not consistent across the fleet and there were major discrepancies between vessels as to the number of silky sharks caught and released. There is a high risk that the impact of the fishery on the status of silky sharks is grossly underestimated. The CAB has not set a condition to enforce a stepwise reduction of the bycatch of silky sharks from FAD sets even though the “threatened status” of silky sharks has just been changed from “near threatened” to “vulnerable” by the IUCN.

THE NZ ORANGE ROUGHY DEEP-SEA BOTTOM TRAWL FISHERY

<https://fisheries.msc.org/en/fisheries/new-zealand-orange-roughy>

The New Zealand orange roughy fishery has had a long history of serial depletion and repeated stock crashes. Throughout the assessment process for this fishery, NGOs raised concerns as to the unsustainability of orange roughy fish stocks, and the fact that there had been known under-reporting and dumping of fish species, including misreporting of orange roughy landing data. A recent report – cited by those groups contesting the certification – showed that for decades there had been serial misreporting of New Zealand catch statistics; a government report acknowledged as well that there had been grave concerns regarding discards of fish for years. In June of 2016, WWF, the Deep Sea Conservation Coalition, Greenpeace, BLOOM Association and ECO-NZ objected to the certification of the fishery, citing the above information as well highlighting the negative impacts of deep-sea bottom trawl fisheries on both ETP species of coral and vulnerable marine deep-sea ecosystems. Recent scientific studies have shown that deep-sea bottom trawl impacts are “...effectively irreversible on time-scales of natural ecological processes” and that recovery times for impacted deep-sea megabenthos can take centuries to millennia. However, the objection was not ultimately successful and the New Zealand orange roughy fishery was certified in December 2016.

