AGROCAMPUS OUEST

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Achieving CITES' (Convention on International Trade in Endangered Species of wild Fauna and Flora) mandate for marine species: situation analysis and identification of opportunities for improvement

By: Audrey Chevalier

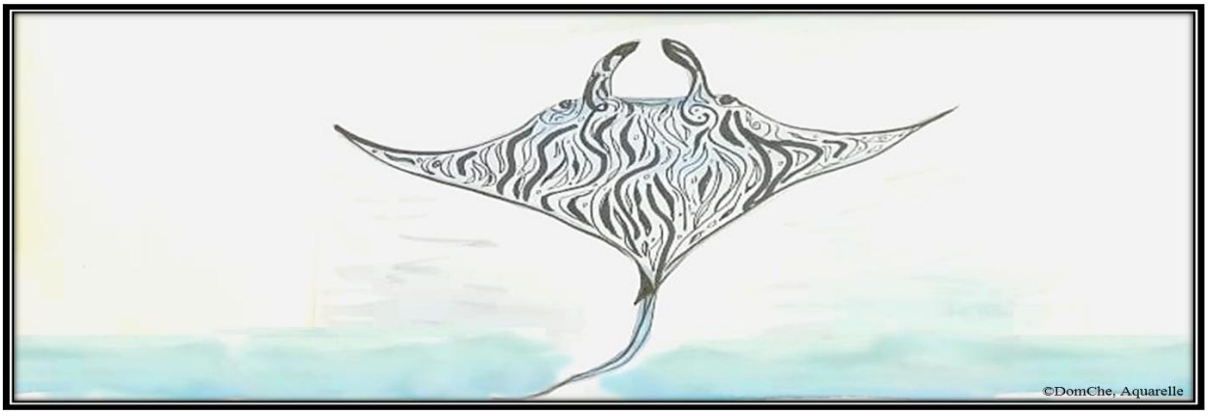

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Table of contents:

Thanks to.

Kim: For having become my martial art life mentor. For giving me the opportunity to work on this subject that still fascinates me to this day. For giving me so much freedom and allowing me to freely take the subject where I did. For being so exigent and never not calling me out for being not enough. Thank you for believing in me and my “unusual set of skills”.

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Preamble – academic context:

This study was conducted and this report written under the supervision of Kim Friedman, senior officer in the Fisheries Resources Branch of FAO. All views, analysis and conclusions are my own and do not reflect the policy or practice of the FAO.

This study was conducted as an academic exercise. It will be published under the present format to validate a French Master in Fisheries management and will be adapted to also be published as a veterinary thesis.

My background training being in veterinary medicine, it led me to analyse and present the study as a clinical case, formulating diagnostic hypothesis based on what I had learned in fisheries management classes as well as following my supervisor's suggestions, then testing my hypothesis through different investigations and discussions with those affected, understanding the pathogenesis leading to the symptoms observed and felt. Then thinking of adequate therapeutic plans, both symptomatic and etiological.

Einstein once said "If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and 5 minutes thinking about solutions." He also believed we should not listen to those who have the best answers but to those who ask the best questions. I conducted this study with this kind of mind-set and, like in the Glaser & Strauss grounded theory, I let the findings guide me further along the way, always trying to ask the best questions.

The challenges addressed here have existed for several decades, I am very aware of that the recommendations presented within this work are unlikely, alone, to solve them. However, as a problem worth studying from an organism point of view, I believe this thesis brings clarity to articulating some of the underlying questions that make up the problem, that offers new ways of understanding the malfunctioning (symptoms) observed by the parties involved. As John Dewey, one of the most prominent American scholars in the first half of the twentieth century, stated: "a problem well put is half solved".

Glossary:

ABNJ: Area Beyond National Jurisdiction (International waters)
CBD: Convention on Biological Diversity
CEAS: Commercially-Exploited Aquatic Species
CITES: Convention on International Trade in Endangered Species of Fauna and Flora
CMS: Convention on the conservation of Migratory Species
COFI: Committee On Fisheries (subsidiary body of the FAO council)
CoP: Conference of the Parties
EEZ: Economic-Exclusive Zone (Waters under a country's jurisdiction)
EU: European Union
FAO: Food and Agriculture Organization of the United Nations
HDI: Human Development Index
IATTC: Inter-American Tropical Tuna Commission
ICSF: International Collective in Support of Fishworkers
IFS: Introduction From the Sea
IGO: Inter-Governmental Organization
IOTC: Indian Ocean Tuna Commission
IPBES: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IUCN: International Union for the Conservation of Nature
IUU: Illegal, Unregulated and Unreported
IWC: International Whaling Commission
MA: Management Authority
MEA: Multi-lateral Environmental Agreement
MSY: Maximum Sustainable Yield
NDF: Non-Detrimental Finding
NGO: Non-Governmental Organization
OECD: Organisation for Economic Cooperation and Development
OY: Optimal Yield
PSMA: Port States Measures Agreements
RFB: Regional Fishery Body
RFMO: Regional Fishery Management Organization
SA: Scientific Authority
SDG: Sustainable Development Goals of the United Nations
SPC: South Pacific Conference (The Pacific Community)
UN: United Nations
UNDP: United Nations Development Programme
UNESCO: United Nations Educational, Scientific and Cultural Organization
UNODC: United Nations Office on Drugs and Crime
WCPFC: Western and Central Pacific Fisheries Commission
WCS: Wildlife Conservation Society
WWF: World Wide Fund for Nature

List of the annexes

List of illustrations

Introduction:

The Anthropocene is going through a "**biodiversity crisis**" (Ceballos, Ehrlich, et Dirzo 2017). An end point of the degradation of ecosystem function is species' extinctions. Earth has now lost 82% of its wild mammals' biomass since prehistory and **all the extinction rates are accelerating** (IPBES 2019). Overall, the biodiversity crisis is a one heath crisis, affecting not only wild species survival and health but also ecosystems and human wellbeing. These extinctions are a threat to **biodiversity's ecosystem services** that are essential to **human health, food security and survival**.

Nations around the world trying to come together and coordinate policy and practices to counter this global crisis. **Multilateral environmental agreements** and related tools are an international mechanism used since the 1940's to achieve action on issues of global need. As such global issues are identified, several governments, specialised agencies and civil society have negotiated agreements to try to respond to global challenges.

Globally, at least **6 major multi-lateral environment agreements, non-governmental and international organizations** play a significant role in biodiversity conservation. *Figure 1* below introduces them and how the convention studied in this thesis, CITES, positions itself amongst them.

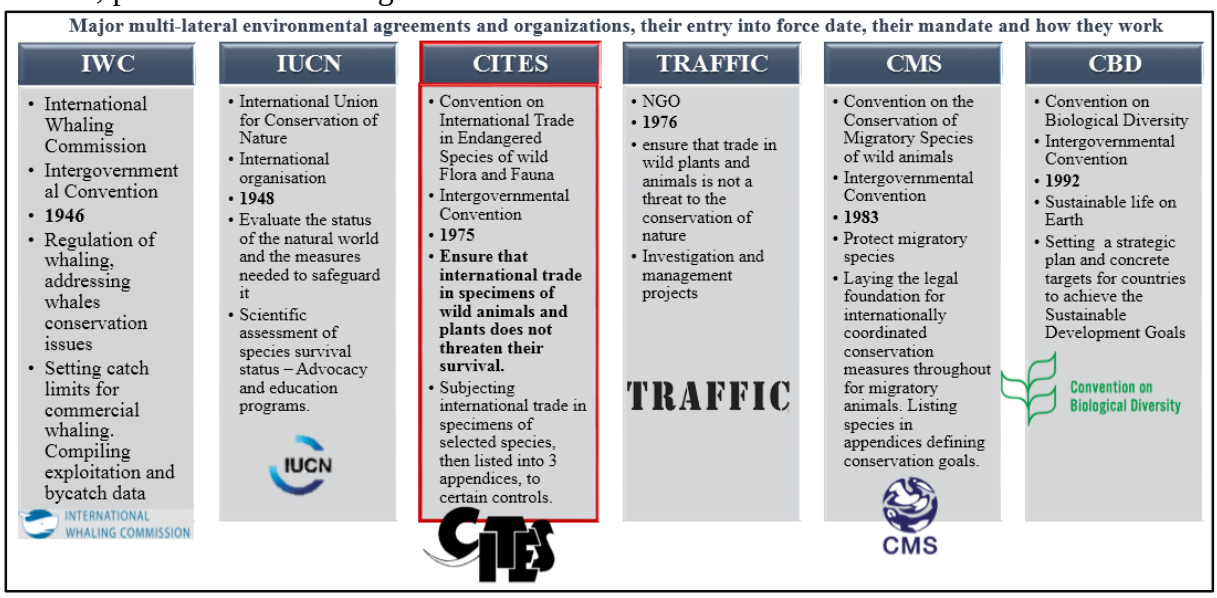


Figure1: CITES in the context of other major multi-lateral environmental agreements

As it emerged more and more clearly our society needed to **lessen pressures on wild species**, this challenge called for **stricter harvesting management** but also, along the value chains, **better trade controls** of wild species and related products of these animals and plants. This need is expressed in the foundation of CITES and supporting organizations such as TRAFFIC. They focus on species either near threatened or threatened with extinction, to coordinate international community responses in **ensuring species in the wild are not threatened by international trade.**

Amongst ecosystems under threat, terrestrial systems are experiencing the bulk of current species losses, however **the ocean** is not to be forgotten. The ocean represents 71% of the planet's surface and holds **70% of its animal biomass** (Bar-On, Phillips, et Milo 2018). Marine ecosystems provide 17% of animal protein globally consumed and represents a source of income and employment for 250 million people (FAO 2020b). It would be just as much a human tragedy if oceans were to suffer the same biodiversity crisis as terrestrial ecosystems.

Many multi-lateral agreements (MEAs) set-up to handle a terrestrial global biodiversity crisis have needed to turn their focus to integrate management and conservation activity on marine ecosystems. Despite no fully marine teleost fish going extinct from fishing in over 400 years, **fishing is arguably one of the main drivers that elevates the risk of aquatic extinctions** (Dulvy, Sadovy, et Reynolds 2003). Fishing along with **habitat loss and climate change** (Duarte et al. 2020) are pervasive threats and chronic pressures. Hence, fisheries management needed to be addressed within MEAs' frameworks.

To this day, **managing marine resources sustainably remains a global challenge**. 60% of the world's major marine ecosystems that underpin livelihoods are being used unsustainably (UNESCO 2017). MEAs are not fully achieving their stated mandates when it comes to marine species conservation and management. For example, the Convention on Biological Biodiversity (CBD)[1] aims to ensure sustainable life on Earth notably through the conservation of diversity in all its forms (from genetic to ecosystems) has not been able to deliver on targets it set the global community in its strategic plans (Driscoll et al. 2018). Targets within the CBD's Strategic Plan for Biodiversity 2011-2020, also known as Aichi targets[2] **have not achieved the aimed reductions of biodiversity erosion.** In the case of fisheries (Aichi target 6) **34,2% of fish stocks are currently considered exploited at unsustainable levels** (FAO 2020b) and it has declined since 1974 when around 10% of the stocks were then estimated as overfished (FAO 2018). This declining trend in the sustainable management of fisheries resources shows how **more efforts are needed in curbing the erosion of the function of marine ecosystems, the precursor to biodiversity loss.**

It is more and more critical for the scientific community to **evaluate and suggest adaption to conservation tools** to try and get better results in conserving marine biodiversity. This calls for more efficient, science-based, collaborative and **results-oriented management as well as concrete, complete and effective implementation plans** to halt biodiversity loss (Watson et Venter 2017; Maron, Simmonds, et Watson 2018).

One of the many ways to lessen pressures on marine resources is to limit unsustainable international trade. Indeed, it is important to remember that fish originating from areas of shared control require international controls, **international waters (waters beyond national jurisdiction) account for more than 60% of our oceans** (De Santo et al. 2020) that are of particular importance for deep-sea fisheries as well as for highly migratory species such as tuna. On the other hand, even for fish stocks sourced from the EEZs of nation states, **38% of marine species are traded internationally (FAO 2020b).** The trans-boundary nature of marine resources itself, global commerce coupled with an increasing demand (consumption) for marine commodities globally all illustrate **the importance of international cooperation** in management and conservation of marine species.

[1] The **Convention on Biological Diversity** (CBD) is the international legal instrument for "the conservation of **biological diversity**, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources" that has been ratified by 168 countries in 1992, showing a global political will to conserve biodiversity.

[2] A set of 20 global targets under the CBD Strategic Plan for Biodiversity 2011-2020. Corresponding to 5 strategic goals to reduce unsustainable use, preserve ecosystem services and deter biodiversity loss.

Managing sustainably marine resources harvested from international waters and monitor efficiently marine products entering international markets are needed to preserve stocks for future generations.

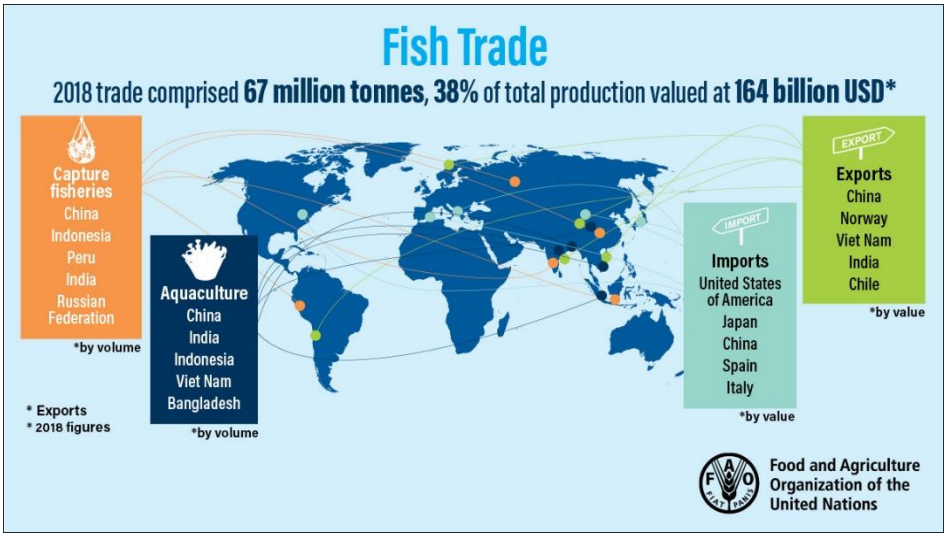


Figure2: the importance of international fish trade in the World

And as all fishing targets are wildlife, the international legal instrument for regulating international movement (termed trade in this thesis) of endangered wild species is the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). As mentioned in *Figure 1*, CITES framework and mandate were agreed upon by 80 countries and came into force in 1975. This convention now has 183 parties. Its mandate is to **ensure that international trade in specimens of wild animals and plants does not threaten their survival**. It does so by subjecting international trade in selected species listed into one of its 3 Appendices[3], to certain controls. Within CITES there are provisions enacted for trade in species that are listed. This provision require monitoring and control of international trade to ensure trade does not contribute to the listed-species' loss in the wild.

The number of marine species listed under CITES Appendices has increased from 5 in 1975 to 2382 today. This was a response of the CITES parties to a concern that marine species were being or could become threatened with an extinction risk. As more and more marine species were listed in CITES Appendices and falling under CITES' provisions, there was a range of **concerns about both the legitimacy and efficacy of CITES in the marine realm.**

This concern largely stemmed from a perceived mis-match in communities of practice of CITES versus those in the fisheries sector. Typically commercially-exploited aquatic species (CEAS) are managed by fisheries-specialised authorities whereas the settings and delegations of CITES are more aligned to terrestrial issues and environmental Ministries historically in charge of biodiversity conservation on land.

This articulation between CITES and fisheries management is the focus of this thesis. Traditionally, the UN Food and Agriculture Organization (FAO) is the inter-governmental specialised agency globally mandated to support fisheries management. Parties of CITES that are also members of FAO hence requested assistance in assessing the listing decisions of commercially-exploited species proposed for listing under CITES Appendices to ensure listing decisions would be informed by the best available scientific data. Since then **FAO and CITES have built a working relationship** framed by a Memorandum of Understanding signed in 2006 in order to strengthen their cooperation (CITES et FAO 2006) in relation to species proposed for listing in CITES Appendices and in the subsequent implementation of those decisions.

[3] Each CITES Appendix defines a set of rules, procedures and controls that apply to all species listed in said appendix entering international trade.

Despite this attempt to build a constructive cooperation between CITES and fisheries communities of practice, many recognise the differences in opinions between countries on fundamental issues have in the past and remain difficult to resolve and **keep CITES from achieving its mandate when it comes to marine species**. Indeed, it has been argued that despite listing more and more marine species, the Convention is not currently delivering the expected conservation outcomes for its marine listed species (McOmber 2002; Cochrane 2015; D. W. Challender, Hinsley, et Milner- Gulland 2019; Foster et al. 2019).

In short, the CITES listing decisions are not being translated into positive conservation and sustainable use for the marine species listed on CITES Appendices. Failure of the delivery of CITES is a threat to both fisheries and marine biodiversity conservation. Therefore, achieving success for CITES should be an aim for both.

What is currently hindering the optimal cooperation of fisheries and biodiversity conservation stakeholders within the realm of CITES? What are the reasons underlying these hindrances? What are the opportunities for improvement?

Materials and method:

In order to elucidate these questions of CITES performance in the arena of CEAS, this study first conducted a literature review, analysis and commentary of both **scientific literature** and CITES' **official documents and databases**. Exploring the conceptual and institutional framework of CITES, its relation and inclusion of fisheries actors at all scales. Hypothesis were developed to assess the performance of CITES in the conservation of CEAS.

The question of CITES performance was then further considered in **stakeholder interviews**. These interviews with 30 experts highly relevant to the topic, were conducted on Skype and followed an interview guide aiming to **confirm or deny** the nature of the relationship of CITES with the fisheries sector and its performance in the conservation of CEAS. Their statements and comments will be analysed and interpreted through social sciences reading grids to explore and understand the social constructs underlying phenomena observed.

The first part of development will clarify precisely the **theoretical framework within which the sustainable trade in listed CEAS is proposed to be ensured**.

Then, by comparing this framework with the operation of fisheries management authorities, this thesis examines the interconnection of fisheries and biodiversity conservation practitioners in the structures of CITES authorities across Member States.

Secondly the differential participation of two of the main communities involved in CITES processes and meetings was examined. This demonstration looks for **the challenges and systemic opportunities** to enhance the effectiveness of cooperation toward the achievement of CITES' mandate.

To further understand the intangible nature of the relationship of the fisheries community of practice with the Convention a series of detailed interviews were held to **review and analyse the observations of a broad range of relevant experts, their personal experiences, thoughts and perceptions of these issues**. They were also asked to suggest opportunities for improvement of any underperformance they experienced or perceived.

The research conducted compiled with the advice of relevant stakeholders' offers specific, realistic, layered and practical opportunities to improve the operational efficiency of the Convention's mandate.

I-Understanding how CITES is supposed to achieve its mandate

CITES is an international agreement[4]. Countries choose whether to become Parties to the convention and by doing so agree to implement CITES legally binding rules. These rules are designed to ensure threatened wild species are either:

- Traded internationally only if legally and sustainably sourced and their international trade does not threaten their survival in the wild
- Completely banned from entering international trade

As mentioned earlier, the convention does so by subjecting international trade of **selected specie**s listed into one of its 3 appendices, to certain provisions (rules and controls).

In order to describe the key processes of CITES, the following paragraphs will describe CITES' institutional framework as it is explained in the convention's official documents[5].

This description is centred on three questions:

1. How do species become listed on CITES appendices?
2. What exactly are the legal trade rules established by the convention for species listed on it Appendices and how do they ensure conservation goals' achievement?
3. What implementation measures are to be taken by Parties to comply with their commitments to the Convention text and on-going decisions?

I-1/The appendices: their listing criteria and the trade rules they define

Depending on the level of protection the countries decide to provide to wild species, the convention defines **three levels of "survival threatened by international trade" status** for species. These levels of protection needed are set by listing criteria and they define the three appendices in which the parties list the species if they are considered as falling under the appendices' criteria.

The **first appendix** includes species **threatened by extinction**. Species listed in Appendix I are **banned from international trade** except in rare cases (research or scientific projects) excluding primarily commercial purposes.

The **second appendix** lists species in which **international trade should be controlled to ensure the species' survival in the wild.**

The third appendix contains species that are unilaterally protected by at least one of the Parties. Import and export regulations in these species and in or from these parties then depend on each Party.

Each Appendix is defined by its listing criteria. If a CITES Party considers a species falls under the criteria for Appendix I or II, and needs regulation in its international trade, it can **propose the listing** of said species. The listing criteria are defined in the text called E-Res-09-24-R17, revised in 2016 (CITES 2016).

These criteria presented in *Table 1* are the ones CITES parties agreed on for **all animal and plant species**. Which explains why they are not very precise nor quantitative.

[4] CITES foundation text : https://cites.org/eng/disc/text.php

[5] all made public on its website: www.cites.org

Table 1 : The CITES listing criteria

<table>
<tr><th colspan="2">CITES Appendix I</th><th>CITES Appendix II criteria 2(a)</th><th>CITES Appendix II criteria 2(b)</th></tr>
<tr><td rowspan="5">A : Wild population is small + meets one of the following :</td><td>an observed, inferred or projected decline in the number of individuals or the area and quality of habitat</td><td rowspan="5">A :It is known, or can be inferred or projected, that the regulation of trade in the species is necessary to avoid it becoming eligible for inclusion in Appendix I in the near future</td><td rowspan="5">The look-alike species rule:
The specimens of the species in the form in which they are traded resemble specimens of a species included in Appendix II under the provisions of Article II, paragraph 2 (a), or in Appendix I, so that enforcement officers who encounter specimens of CITES-listed species are unlikely to be able to distinguish between them;</td></tr>
<tr><td>each subpopulation being very small</td></tr>
<tr><td>A majority of individuals being concentrated geographically during one or more life-history phases</td></tr>
<tr><td>Large short-term fluctuations in population size</td></tr>
<tr><td>High vulnerability to either intrinsic or extrinsic factors</td></tr>
<tr><td rowspan="4">B : Restricted area of distribution + one of the following :</td><td>fragmented or occurrence at very few locations</td><td rowspan="4">B : It is known, or can be inferred or projected, that regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences</td><td rowspan="4">There are compelling reasons other than those given in criterion A above to ensure that effective control of trade in currently listed species is achieved.</td></tr>
<tr><td>large fluctuations in the area of distribution or the number of subpopulations</td></tr>
<tr><td>High vulnerability to either intrinsic or extrinsic factors</td></tr>
<tr><td>An observed, inferred or projected decrease in the number of individuals, number of subpopulations, recruitment, area of distribution or the area or quality of habitat</td></tr>
<tr><td rowspan="2">C : A marked decline in the population size in the wild which has been either :</td><td>Observed as ongoing or having occurred in the past (but with a potential to resume)</td><td rowspan="2"></td><td rowspan="2"></td></tr>
<tr><td>inferred or projected on the basis of a decrease in area or quality of habitat or recruitment, high vulnerability to extrinsic or intrinsic factors or LEVELS/PATTERNS OF EXPLOITATION</td></tr>
</table>

Aquatic species were recognised as a challenge to classify in the same categories given their biological differences (life cycles, reproduction, population structures etc.) compared to all other species, CITES Parties agreed on specific definitions of "decline", explained below:

Table 2: Specific CITES listing criteria for aquatic species

<table>
<tr><th colspan="2">CITES specific aplication of decline for commercially exploited aquatic species</th></tr>
<tr><td rowspan="3">In marine and large freshwater bodies, a narrower range of 5-20 % decline is deemed to be more appropriate in most cases,</td><td>range of 5-10 % being applicable for species with high productivity</td></tr>
<tr><td>10-15 % for species with medium productivity : natural mortality rate, with the range 0.2-0.5 per year indicating medium productivity.natural mortality rate, with the range 0.2-0.5 per year indicating medium productivity.</td></tr>
<tr><td>15-20 % for species with low productivity (= Low productivity is correlated with low mortality rate and high productivity with high mortality)</td></tr>
<tr><td rowspan="2">The historical and recent decline rates</td><td>the historical extent of decline should be the primary criterion for consideration of listing in Appendix I. However, in circumstances where information to estimate the extent of decline is limited, the rate of decline over a recent period could itself still provide some information on the extent of decline</td></tr>
<tr><td>For listing in Appendix II, the historical extent of decline and the recent rate of decline should be considered in conjunction with one another. The higher the historical extent of decline, and the lower the productivity of the species, the more important a given recent rate of decline is.</td></tr>
<tr><td>Definition of "recent marked decline"</td><td>The rate of decline that would drive a population down within approximately a 10-year period from the current population level to the historical extent of decline guideline (i.e. 5-20 % of baseline for exploited fish species). There should rarely be a need for concern for populations that have exhibited an historical extent of decline of less than 50 %, unless the recent rate of decline has been extremely high.</td></tr>
<tr><td colspan="2">In considering the percentages indicated above, account needs to be taken of taxon- and case-specific biological and other factors</td></tr>
</table>

Table 2 illustrates the effort undertaken to try and make the CITES listing criteria **more precise and less questionable** for CEAS. The overall objective is to **increase the impartiality and acceptability of listing decisions.**

To ensure the implementation of protection levels adapted to the extinction risk the listed species are deemed under, each CITES Appendix defines specific trade rules for the species they contain.

Each Party is responsible for nominating its national CITES authorities, in charge of implementing said trade rules for the listed species:

- The **Scientific Authority** (SA) is made of scientific experts chosen by the country who are responsible for evaluating the methods as well as numbers (or volumes) of acquisition and after these specific evaluations, cross-checked with the best available or acquired data on the wild population of that species, they issue a **"Non-detrimental finding" (NDF) certificate**. This document scientifically proves the specimen has been obtained legally and in a way that is "non-detrimental to its survival in the wild".
- The **Management Authority** (MA) is an agency, administrative body or organization designated by the country to be officially in charge and responsible of administrating and checking all the CITES documents at national scale. Notably, the NDF certificate needs to be transferred to the MA prior to any listed species entering international trade. The MA is then responsible for **checking the quality and reliability of the NDF and then allowing or not the issuance of the trade certificates or permits.**

The CITES trade rules are summed-up in *Table 3* below:

Table 3: CITES trade documents needed for specimens of listed species depending on the Appendix they are listed in

Appendix	I	II	III
Import rules	**Import permit** issued by the importing State's management Authority	No import permit is necessary unless the importing State requires one in its national law	Certificate of origin when importing into a Party that included the species in Appendix III from a Party that did not
Export rules	**Export permit** issued by the exporting State's management Authority		Export permit needed if the exporting Party included the species in Appendix III
Re-export rules	**Re-export certificate** issued by the re-exporting State's management Authority		
Introduction from the Sea[6]	**Certificate** from a Management Authority of the State of introduction		

Apart from these general trade rules and documents defined by the convention, **each country is responsible for the way they implement their commitment to protect the listed species**. For example, some countries decided to do so through the implementation of **voluntary export quotas**. Such quotas could be calculated by the scientific authority and advised to the management authority to limit the grant of export permits. Examples of Parties implementing CITES through export quotas in commercially-exploited marine species (FAO 2020a) are presented in *table 4* below:

[6] A specimen introduced from the sea is harvested in international waters and landed at a Party's port

Table 4: Volontary export quotas examples

Examples of CITES Appendix II-listed fish species subject to voluntary national export quotas			
Countries	Species	Voluntary Export Quota	Year of inclusion
Tunisia	European eel	90,000 kg quota wild-taken	2019
Democratic Republic of Congo	African blind barb	70 quota live	2018
Jamaica	Queen Conch	450,000 kg	2018
Indonesia	Humphead wrasse	2,000 quota live	2016
Indonesia	Barbour's seahorse	8,000 hds quota live	2016
Azerbaijan	Russian sturgeon	zero quota caviar and meat	2017/2018
China	Japanese sturgeon	zero quota caviar and meat	2017

A Party can also take the decision not to implement the general CITES trade rules, in which case they **"enter reservation for" a species**. They are then **considered as a non-Party** in regard with the Convention's rules to trade this particular species. In these cases, parties entering reservation can decide on their own trade regulation measures. And it also exempts them from the obligation of reporting trade data to CITES secretariat.

All decisions taken by the Parties regarding their ways of implementing CITES must be communicated to the CITES secretariat. This allows the CITES databases to be updated accordingly, facilitating the trade rules' readability between Parties and for private stakeholders.

I-2 /The listing process

Every three years, CITES holds a meeting called the Conference of the Parties (CoP). It is the Convention's supreme decision-making body. All species listing amendment decisions are taken during these CoPs. A Party needs to **submit a proposal** for any decision and each proposal is examined and then submitted at CoP and its approval or dismissal is the decision of a **vote by CITES parties**. Any decision, including the listing proposals and appendices amendments, need **two thirds of the present Parties** to vote in favour of its adoption to be approved for all Parties, then responsible for implementation and enforcement.

There are four types of stakeholders present at these events:

- National representatives: sitting within the national delegations, these stakeholders are the only ones to have a voting right and can vote on behalf of their Party
- Observers: UN agencies, organisations (IGOs or NGOs, academic groups) or companies officially registered as such and given the floor if they will to address meetings.
- Visitors, not allowed to participate in the discussion
- CITES Secretariat staff members, working with the CITES Secretariat, Animal, Plants or standing committees to facilitate meetings

The Convention text and decisions taken at CoPs define the orientation taken by the Convention. Which is why these events hold a particular importance in the analysis of CITES' governance.

During each CoP, organizations can also register to host side events. These events are more informal, including socialising-friendly environments and connecting people but they can also be informative, with presentations, talks and discussions being held around key topics that are up for voting decisions and used to inform stakeholders.

The participants, hosts, number and composition of guests are not made public.

I-3/CITES' implementation

Once a species is listed on a CITES Appendix, when that species is to enter international trade, it is subject to the specific CITES controls showed in *Table 3* (this also applies for look-alike species[7]). Hence, all imports, exports, re-exports and introductions from the sea (landing of species harvested in international waters into a Party's port) have to be authorized through the licencing system and be accompanied by related documentation.

Each Party must designate one or more national Management Authority (MA) in charge of the administration of CITES system: issuing and checking of documentation (certificates and permits) that verifies the origin of the listed species as well as their intended use. They **are responsible of authorizing any listed specimen to enter or leave the country**.

As explained in I-1/ the Parties must also designate one or more Scientific Authorities (SA), in charge of assessing the impact of international trade on the wild population of listed species. They ensure the international trade of the species (or species commodity) is not compromising survival of the species in the wild. To confirm this, a **Non-Detrimental Findings (NDF) certificate** is issued. This work can of course substantial and can imply stock assessments and a thorough knowledge of the resources. It requires an **important expertise capacity** of qualified scientists with **very specific sets of skills depending on the species they need to asses.** They give official scientific advice to the MA as to the status of species and also give feedbacks on NDF certificates of imported listed species.

In order for CITES to work, the **national CITES management authorities need to build up partnerships with all the other competent national bodies that could be involved** in the assessment, control and enforcement of these trade rules for the species in question, across the **entire governance chain**. Inputs and implication from specialised agencies or research laboratories, assessment authorities, police forces, border controls is required in the delivery of the Convention's aims as well as the management and implementation of the Convention's provisions at a local level.

Given the number of stakeholders implicated in the good operation of CITES, all decisions taken at international level should be communicated transparently and timely across scales and agencies that have responsibilities within a country.

I-4/CITES and the sea – The overlaps of mandates justifying a need for cooperation and a collaborative framework

CITES' mandate is clear: "**ensure that international trade in specimens of wild animals and plants does not threaten their survival**".

It took a while to recognize fish species as wildlife. "Wildlife" rarely encompasses fish species (Wadewitz 2011). This mind-set shift is still in progress in most countries. Additionally, the numbers both of CITES Parties and CITES-listed species (including marine species) have increased over time. As such, **CITES' attention has progressively broadened** and now considers even more marine species for listing on its Appendices and resultant trade management. This reflects concern for marine species and the increase in trade of marine species: 38% of marine products are traded internationally (FAO 2020b) justifying the **need for international trade monitoring instruments**.

[7] See CITES Appendix II criteria 2(b) in Table 1 (page 11)

More so in some specific cases, in which high value fish or fish commodities can be considered a likely source for potential exports, especially for those species or products for which national markets are limited or non-existent (e.g. dried sea cucumber, shark fins, sea horses).

In such cases, **it is widely admitted that international trade increases directly the pressure on these marine species.**

Which explains why **even if CITES is an international trade convention** rather than a fishery management control**, it can be used as a complementary tool to on-water fisheries management**. By regulating trade, CITES can influence the harvest of resources even if it was not its original mandate. Theoretically, it is the forbidding or limiting of access to legal international trade that has the effect of suppressing or limiting the reason for harvest, hence stopping or reducing fishing pressure identified as a threat to that species' survival in the wild. In practice CITES has no authority on local catch or trade of species in country, and illegal international trade is known to continue and sometimes increase following the listing of species on CITES Appendices.

As more species are being deemed threatened with extinction[8], **more and more marine species are getting proposed and accepted for listing within CITES Appendices** (from 5 species in 1975 to 2382 in 2020), hence **falling under CITES regulations**.

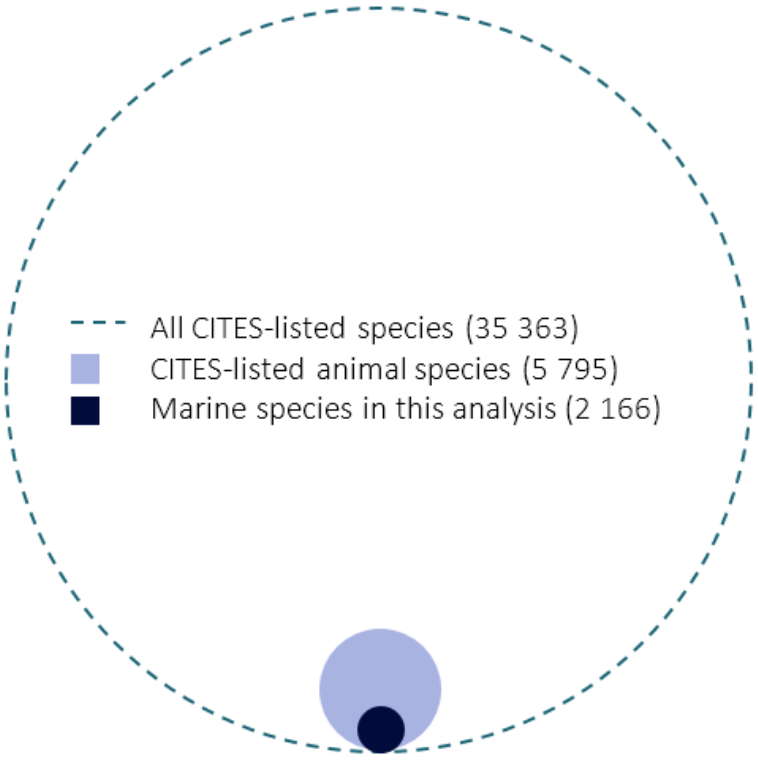
Fisheries-related stakeholders are attentive to the actions of CITES, because fisheries agencies, organizations, stakeholders are responsible for delivery of fisheries governance (management and conservation). These responsibilities include regulating access and catches, quota setting (Total Allowable Catch (TAC)) i.e. **making sure the harvest of marine species are sustainable**. At all scales.

Fisheries authorities are the ones working with the fishers' communities and stakeholders, cooperating and implementing fisheries management measures, safeguarding the fishery resources and the marine ecosystem health while also protecting the dependant economic stakeholders. **These authorities have built proximity through trusting and constructive professional relationships with the fisheries networks.**

Once a commercially exploited species becomes listed on a CITES Appendix there is a **shift in mandates, with CITES authorities resuming responsibility for allowing or disallowing continuance of legal trade**.

[8] As identified by species experts, included in the IUCN Red List of Threatened Species, the world's most authoritative and comprehensive list of species at risk of extinction : https://www.iucnredlist.org/

Despite the increase of the number of marine species listed in CITES appendices, the Convention's focus remains dominated by terrestrial issues, with marine species still representing a minority within the CITES listed species, as illustrated by the figure hereafter[9]: So **CITES is far from being marine focused.**



Graph 1: The number of CITES-listed marine species considered in this analysis, compared to the total number of CITES-listed species.

The growing gap between CITES' organisational nature and their aspirations towards the management of marine species while being distant from the primary stakeholders to do so has created concerns and tensions. This provides some context to understand the performance of the Convention in ensuring the sustainability of international trade in CEAS deemed threatened with extinction (McOmber 2002; Cooney et Abensperg-Traun 2013; Duffy 2013; Foster et al. 2019; Friedman et al. 2020).

The following demonstrations of this report will explore, identify and explain the perceived gap between fishery stakeholders and the CITES community at all scale. Offering concrete suggested actions that could be an opportunity to bridge these communities of practice

II-Identifying key issues in CITES' operation when it comes to protecting marine species – a critical analysis

In order to "ensure that international trade in specimens of wild animals and plants does not threaten their survival" when it comes to marine species, one could expect CITES Parties to:

- Conduct thorough **assessments** of the status of a species relative to its vulnerability of extinction, and to **evaluate the pressure of international trade**, making sure a listing in CITES appendices would offer operational opportunities to lower the identified extinction risk to the species.
- Present these results clearly to justify listing a species or making an amendment to a listed species in order to provide species at risk the adequate management/regulation of trade measures required to **safeguard them.**
- Make sure the fisheries stakeholders and sector are present at key listing and implementation steps to **ensure their voices are heard in defining the most appropriate actions, so that the fisheries sector and stakeholders are able to participate in CITES implementation.**

[9] Source : CITES and the Sea, FAO 2020 – this study excluded reptiles and cetaceans

The following paragraphs will formulate hypothesis as to how these three pillars (i) know the extinction risk and link it to trade; ii) present science based arguments to guide species Appendix amendment listings, and iii) ensure fishery stakeholder involvement in CITES processes) are having a conditioning influence on the achievement of the CITES mandate. Where issues are identified, suggestions were sought to improve the potential delivery of the CITES mandate.

II-1/The listing criteria and CITES CoP decisions on marine species amendments

CITES listing general criteria and decisions are, to this day, very disconnected from the usual fisheries approaches, creating **a gap from the very conceptualisation of what species "in which international trade is a threat to their survival in the wild" are in need of additional controls, monitoring and protection.** Even if FAO helped adapting the criteria for CEAS (as explained in I-1/ table 2), there is still confusion on standard listing criteria and the fisheries footnote (which gives more adapted details for the criteria to be applied to CEAS). It is also argued the wording of the standard text is not articulated clearly.

Historically, Fishery management authorities have been in charge of monitoring and controlling the exploitation of marine species. Despite having adopted an Ecosystem Approach to fisheries for almost two decades (FAO 2003), fisheries actors predominantly use a very commercial vocabulary, always speaking of "marine resources", rarely about "biodiversity". It is changing progressively as it is becoming clearer and clearer that biodiversity is a key condition for ecosystems proper functioning and productivity. And throughout the years, when the fishing communities realized the risk of overfishing and vulnerability of certain stocks, the priority has become to make sure these marine resources are fished at **sustainable levels** while providing a maximum profitability. This reflects a **shifting focus from fishery development to management and conservation.** Hence the fisheries communities came up with their own population dynamics models to project the impact of fisheries and make sure the stocks do not collapse. The focus is on the long-term exploitation and profit. The species must remain at abundance levels high enough to ensure its **maximum productivity**. It is called the Maximum Sustainable Yield (MSY) approach.

As time passes, the fisheries management institutions have also learned their stock assessment methods may not be enough to ensure a sustainable management of social-ecological marine systems. Some fishery management organizations are realizing how ecosystem approaches and alternative notions such as optimal yield (OY) which is the maximum sustainable yield (MSY) but reduced by any relevant economic, social or ecological factors, are necessary to exploit marine systems sustainably, allowing both the natural resources and the communities depending on them to thrive. Yet the most common approach to define sustainable fisheries remains the MSY one.

While on the other hand, conservation institutions such as IUCN and multi-lateral environmental agreements such as CITES and CBD have been created to ensure protection of biodiversity as whole. Their philosophy is to think of species as entities we must prevent from going extinct introducing the "threatened by extinction" notion. In fisheries, the aim and most globally adopted approach is the MSY one.

It is interesting to note how CITES and IUCN both use a **very different vocabulary** from the Fishery management organizations and communities. The conservation approach uses metrics and notions that come from terrestrial evaluation methods. In the stock assessments in fisheries, specific notions like fishing mortality (F), spawning stock biomass (SSB) etc. to evaluate if a stock is sustainably exploited or not. From this perspective it is quite surprising to see **how limited is the use of these terms and methodologies when officially assessing the extinction risk in commercially-exploited marine species under biodiversity conservation focussed initiatives** (*Table 5*).

Table 5: Understanding the concepts gap between the CITES criteria and traditional fisheries evaluations

	Conservation (CITES/IUCN)	Fisheries/MSY approach
Population size	Number of mature individuals in a species	Biomass (B) or Spawning Stock Biomass in a stock
Population renewal	Recruitment	Recruitment, natural mortality
Geographic range	Subpopulation	Stock
Exploitation	Extrinsic factors	Fishing mortality

Here we see how the approaches and philosophy in defining which species need management and protection can differ, creating **discussions, misunderstandings and in some cases conflicts.**

More generally, CITES and other biodiversity conservation agencies and organizations (such as IUCN) take a species-centered approach. To fisheries stakeholders, this approach is not central to management and fisheries considers a **stock by stock approach to managing exploitation in the Ocean**, noting that stocks can be functionally distinct despite having a taxonomically similar of identical make-up. As such **the status of a stock could has a consequence for the social – environment in which it is found, without necessarily impacting the survival risk of the species**. So assessing a species as a whole without conducting precise assessments of its stocks, or making a full species assessment is not always a usual fisheries management approach.

Moreover, the I-1/ paragraph showed how the CITES listing criteria for appendices I and II could be considered as very generic whereas in traditional fisheries approaches, the evaluations and **exploitation targets need greater precision to guide the exploitation by fisheries stakeholders**. Economic stakeholders require precision to make sure the effort put into evaluating the biological production capacity of the population justifies the determination of the acceptable pressure level in order to allow the stock to maintain production (and secondarily its ecological function). This precision determines the acceptability of management measures taken. Once accepted, such measures are more easily enrolled by all the fisheries stakeholders and implemented because they usually are interested in mid-term productivity and profitability. Based on this usual mode of operation, the fishery sector would expect CITES to evaluate the pressure that international trade is putting each assessed stock under, determining the acceptable pressure, defining adequate international trade thresholds above which controls would be limited. But **the convention does not respond to this need for precision, hence the decisions taken are not always accepted by fisheries stakeholders.**

These arguments show how, from CITES conceptualisation itself, the listing criteria, the assessment approaches and definitions, the Convention's processes diverge from those of fisheries managers. This divergence motivated the countries to call for greater **collaboration of CITES with FAO, the UN mandated authority on fisheries**.

The goal of this agreed cooperation was to **make sure that the CITES listing proposals for commercially exploited species would receive expert review by fisheries experts** in order to inform CITES Parties that might not have had access to such expertise. These experts, well known and respected by other fisheries stakeholders are invited with country government approval, before every CoP to assess the listing proposals, making sure there is informed voting on species proposed by Parties to enter the CITES appendices (i.e. do they meet the CITES listing criteria). **Trying to fill the gap between CITES definitions and fisheries data, knowledge and approaches**.

In 2019, for CoP18, the FAO expert panel showed that out of 4 listing proposals of commercially exploited marine species, only 1 species (*Holothuria whitmaei*) did meet CITES criteria to be included in Appendix II based on the best scientific data available (FAO 2019).

In 2016, for CoP17, FAO showed 3 out of 7 proposals did meet the criteria. (FAO 2016).

But this scientific expert assessment only advises on whether species prosed for listing amendments meet the CITES criteria**. It is always up to the national delegations present at CoP to vote for or against a listing**. They can follow the scientific advice or not. But this shows how CITES criteria and the listing decisions can be subject of discussions within the fisheries-related agencies or organizations. Then, after the assessments, the final and effective listing decisions are taken by **CITES Parties during the CoPs**. It would seem necessary to **have an adequate representation of the fisheries world at the meetings to ensure the involvement of the fishery community in the process.**

II-2/Stakeholders' representation at the CITES CoPs, study of CoP18 (2019)

As explained in I-2/, the listing decisions are taken at every CoP. The national delegations are presented with the listing amendments proposals submitted by Parties and available advice from UN Agencies, NGOs and civil society organisations they then vote to approval or deny listing amendment decision..

Some delegations (if not most), **arrive at CoP already decided on what their position for each proposal is going to be**. In these cases, consultation with all national stakeholders is expected to have taken place prior to the meeting in order to ensure that the country's vote on each proposal reflects the interests and views of all actors concerned. But these consultations are solely the country's responsibility and it is almost impossible to know who was involved in these consultation, what was discussed and in which terms. Therefore it is very hard to determine representation matters at a within country level of the CITES decision-making process.

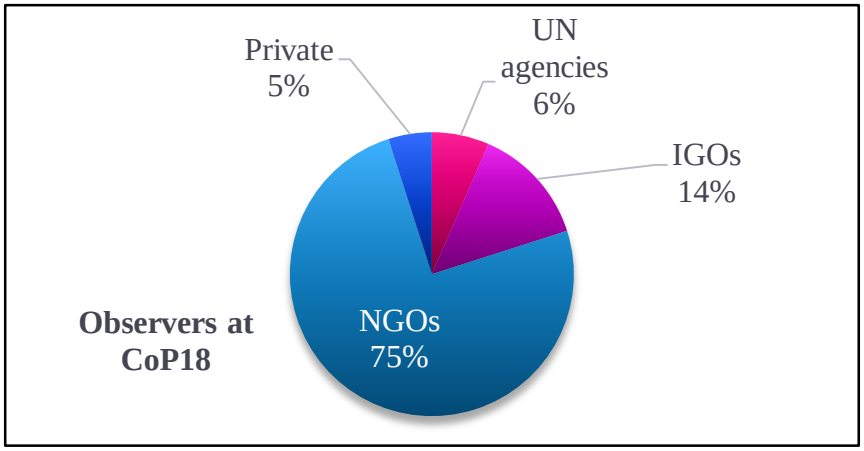
The conference is when experts can also take speak on the floor (and within side events and informal meetings) to present their view of whether species meet the CITES listing criteria (and in some cases whether a specie should be listed), in order to inform voting Parties; an opportunity to influence voting. Which is why the **observers present at CoP can also play an significant role** in the consideration of nuances, adequate listings and implementation measures to agree on to ensure the follow-up of each decision.

The data of all observers registered at CoP is made public on CITES website. And **each organization's interests can be categorized based on their mission statements and main partnerships** as advertised on their website.

Following is an analysis of the interests represented by observers at CoP18. Based on CITES public list of observers registered at CoP18 (CITES 2019a) and each organization's website and mission statements.

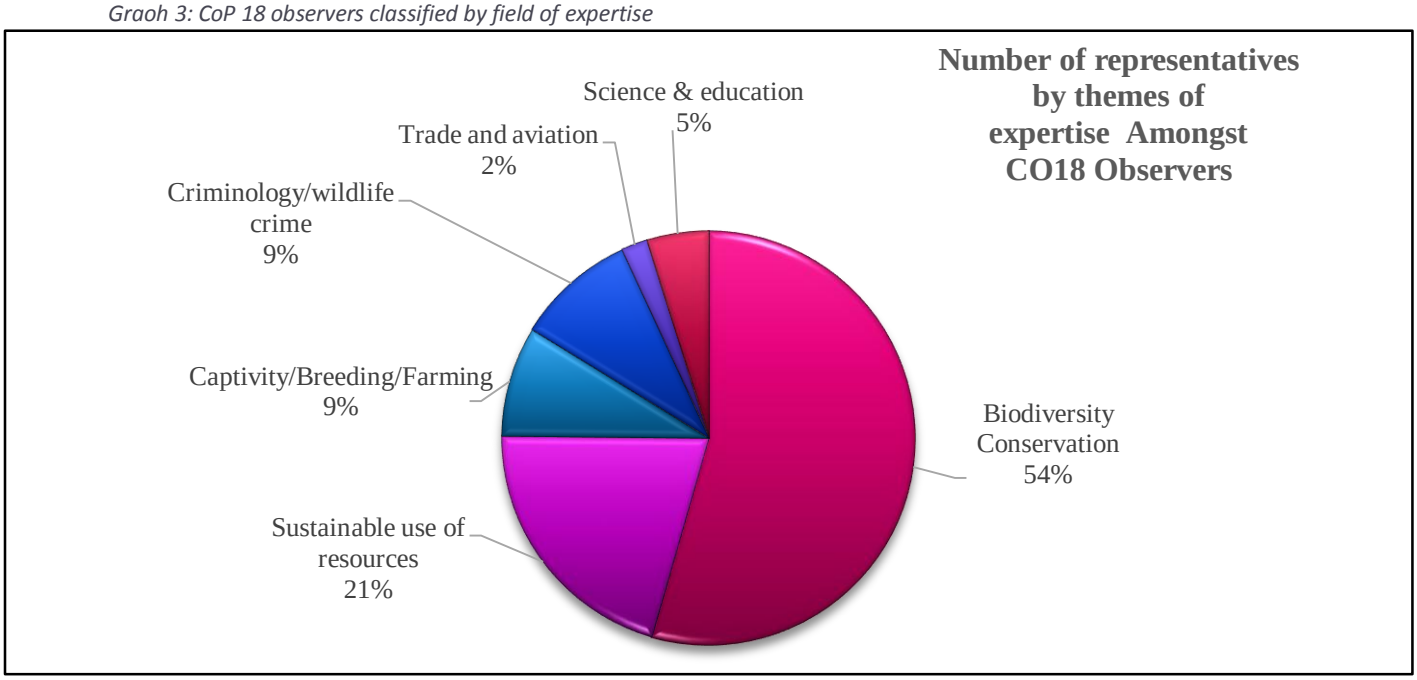
Graph 2 shows how the NGOs are the most represented stakeholders in the Observers' contingent:

Graph 2: Observers analysis at CoP18 - nature of organisations represented



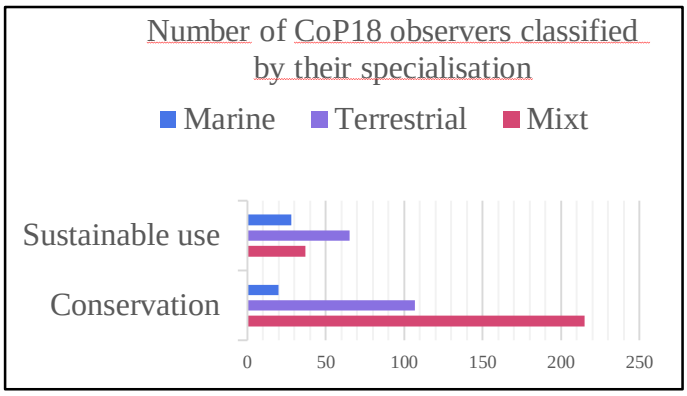
When classified by **themes of expertise**, it is "biodiversity conservation" oriented observers who dominate the representation, with fisheries "trade" the least represented (*Graph 3*), even though CITES is a convention that is based on international trade. It is also worth noting how "**sustainable use of resources" stakeholders only represented 21% of observers** even if, on the field, they will be the ones in charge of implementing CITES decisions under the leadership of CITES Management Authorities.

Graoh 3: CoP 18 observers classified by field of expertise



This shows **the level of biodiversity conservation NGOs investment on their representation at CoPs** in order to occupy the floor, debates and discussions. They also invest in organising **side-events** and it has been suggested these side events are where the lobbying groups evolving around CITES are influencing the national delegates' votes (D. W. S. Challender et MacMillan 2019). Yet records on these events: who attends them, what data are presented etc. are **less public**, hence it is very **difficult to objectify or investigate what importance they hold in influencing the votes**.

Graph 4: CoP18 conservation and sustainable use observers classified by speciality



When analysing the representation of organizations oriented to biodiversity conservation and management, (*Graph 4*) it appears that **marine specialised organizations are under-represented both in conservation and sustainable used observers.**
It is also worth noting how the majority of Conservation agencies representatives are generalists, with expertise across both terrestrial and marine species.

When analysing more precisely what type of stakeholders are representing "sustainable use" (*Graph 5*) an **under-representation of the private sector both in marine and generalist agencies is seen compared to the terrestrial-specialised sustainable use stakeholders**.

Graph 5: Analysis of the sustainable use stakeholders

This breakdown of Observers' information on who is participating in the CITES CoPs shows a clear **under-representation of fisheries specialised agencies and private sector at CoP18**. Which can lead to the non-adhesion of the fisheries stakeholders who feel disregarded in the CITES decision-making process. This non-adhesion can eventually lead to non-compliance in some cases.

The other major actors in this decision-making process are the **national delegates** who are charged with voting on behalf of their Parties (Countries). Unfortunately, **the affiliation of all the delegates are not made public** so it makes it difficult to analyse how well fisheries specialists are represented within the national delegations.

However, as an example, following is an analysis the composition of the CoP18 French delegation. This studuy is based on the list of French delegates (CITES 2019a) and each delegate official academic and professional records.

Table 6 shows how the **French delegation lacked direct participation of official fisheries and marine biology specialised agencies, authorities and stakeholders**. As commonly in the make-up of national delegations, the environment ministry and related agencies as well as law enforcement representatives were well represented. This makes a lot of sense when considering CITES is a wildlife trade convention, but also showing how **fisheries is not yet an integral on-site component of wildlife management meetings in the French delegation.**

Even if general conclusions cannot be made as to which profiles and politic personalities each country chooses to send to CITES meetings, it can illustrate how **in some cases, the fisheries stakeholders can feel left out even within their own country representation in the decision-making process.**

This participates in making CITES' framework and decisions perceived as remote and top-down leaving the fisheries stakeholders - directly impacted by the decisions taken - out of the discussion arenas where decisions are made.

In some other countries, specialised agencies dealing with fisheries management and stakeholders are **consulted before** each CoP. To o**vercome shortfalls in cross agency communication**, while in others fisheries ministry staff are included in the countries delegation. In the latter two cases this helps ensure the position statements adopted by the national delegation will be accepted by their domestic agencies and stakeholders on their return to commence implementation of decisions taken. But these discussions are not made public and are hence hard to analyse.

This links to how each country has decided to consider CITES and who they send to discuss and take decisions at CITES meetings. It is also closely linked to which agencies, ministries and authorities each country has decided to empower when it comes to CITES implementation.

Table 6: Analysis of the CoP18 French delegation composition

Name	Organism/Position	Competences
François RIVASSEAU	Envoyé spécial Espace et chef de la division politique de sécurité du Service européen d'action extérieure – représentation permanente de la France à l'ONU	PhD in law
Arnaud HORELLOU	Museum national d'histoire naturelle (SA)	Ecology
Marie DI SIMONE	Museum national d'histoire naturelle (SA)	Terrestrial biodiversity
Denis DUCLOS	Museum national d'histoire naturelle (SA)	Business management and international relations
Elise REBUT	Ministère des affaires étrangères et du dvpt international	Agronomy, business management and plant biodiversity
Jean-Patrick LE DUC	Museum national d'histoire naturelle (SA)	Biology
Ismaël-Alexandre COSTA	Ministère de la Transition Ecologique et Solidaire: MTES (MA)	ONCSF/Environmental law enforcement
Lénaïck MENGUY	MTES (MA)	International negotiations
Jean-Luc PUJOL	Office central de lutte contre les atteintes à l'environnement et à la santé publique	Biochemistry and general administrative engineering
Marie-Pierre MEGANCK	MTES (MA)	Risk prevention (DGPR)
Christian TOURNIE	Office central de lutte contre les atteintes à l'environnement et à la santé publique	Environmental law enforcement
Veronique HERRENSCHMIDT	OFB	ONCSF – international relations – terrestrial wildlife
Yann WEHRLING	Ministère de l'Europe et des affaires étrangère – ambassadeur à l'environnement	Art diploma and ecology positions
François GAVE	Division politique de sécurité du Service européen d'action extérieure – représentation permanente de la France à l'ONU	International relations
Hélène MONTELLY	MTES (MA)	Biodiversity and terrestrial ecology

II-3/Challenges for CITES' implementation at national level

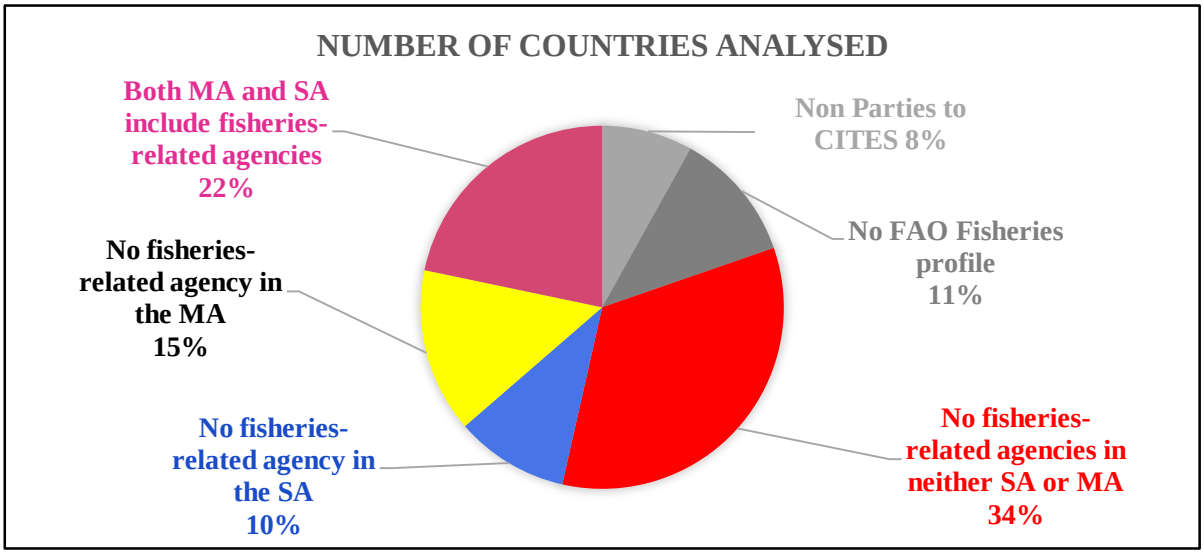
As explained in I-3/, each Party to the convention is responsible for designating its national CITES authorities. **The SA and MA are in charge of CITES implementation at national level and Parties can choose as many as they deem necessary**. When it comes to CEAS, one could expect countries to designate their own specialised agencies in charge of fisheries management and scientific stock assessments as one of their national CITES SA to make sure the fisheries sector is given the opportunity to provide competent advice for implementation of CITES' aims at national level for CEAS. The role of issuing permits for CEAS listed on CITES' Appendices could also be the responsibility of fisheries-related agencies. Some countries made these choices, however most did not.

Following is an analysis of all CITES Parties' choices of CITES authorities crosschecked with their national agencies responsible for fisheries management and scientific stock assessments. The initial postulate is as follow: the usual fisheries management authorities and scientific structures in charge of stock assessments are the ones recognised and trusted by the fisheries stakeholders. They are used to work together, already have established collaborative professional relationships and recognise each-other's legitimacy in their field.

The official CITES authorities as listed in the CITES database[10] as compared as each country's FAO Fisheries profiles, stating the national authorities in charge of fisheries management and scientific evaluations (data in ANNEXE 1) This showed how most countries have left their national fisheries-related agencies out of formal control of CITES governance.

Graph 6 shows how a majority of countries have maintained non-fishery institutions with the responsibility of issuing CITES' documents and related implementation of provisions. **Countries leaving their fisheries-related institutions out of at least one of CITES authorities' framework making up 72,8% of analysed CITES Parties.**

Graph 6: Analyse of countries MA and SA choices



The state of CITES authorities including fisheries agencies is represented on the following world map (*Figure 3*):

[10] https://cites.org/eng/cms/index.php/component/cp

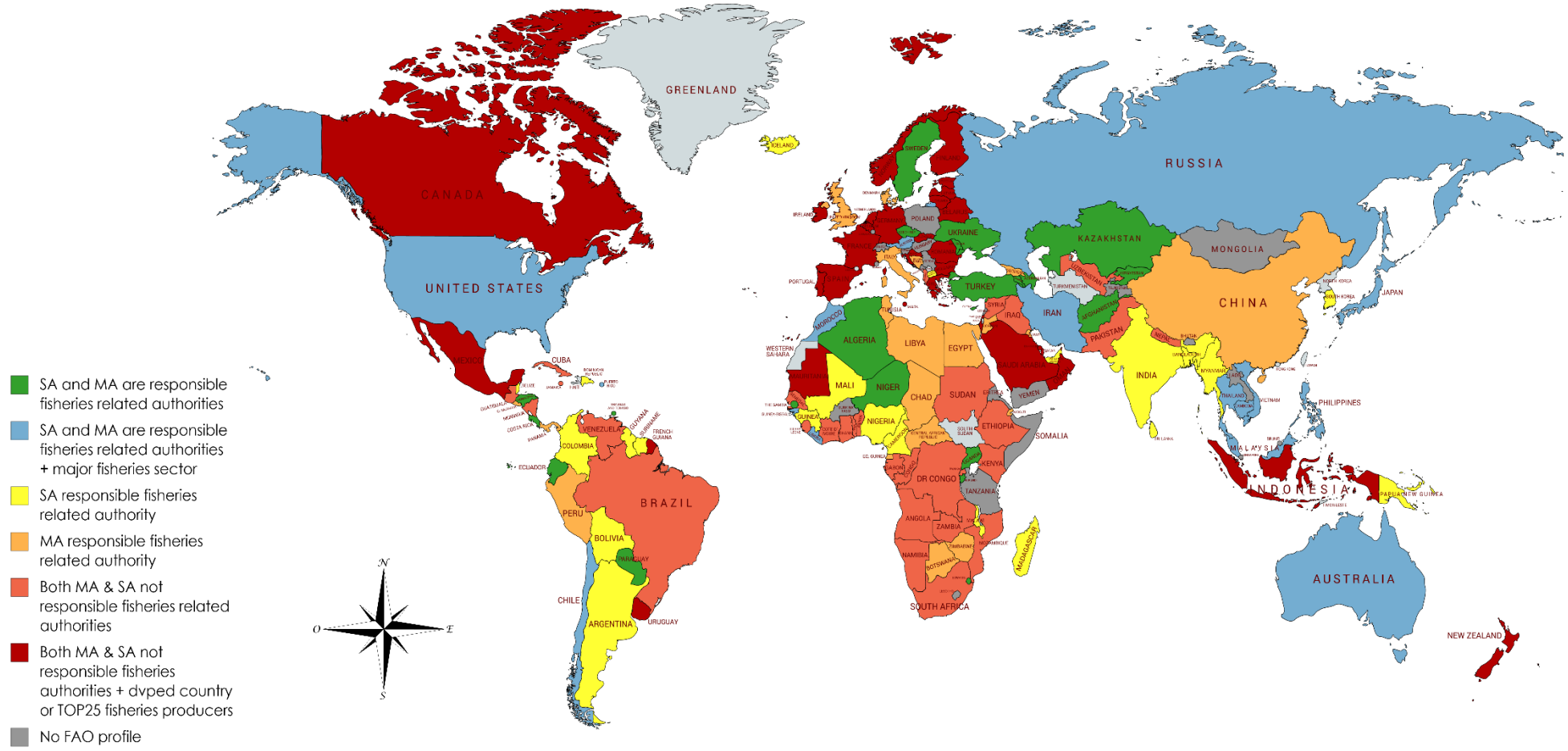


Figure 3: World map of the CITES authorities and their links to fisheries

On this map, "major fisheries sector" is applied for countries in which the fisheries sectors makes up for more than 1,5% of the national GDP or when the country is amongst the TOP25 world fisheries producers (FAO 2020b). "Developed country" is applied when the country's 2019 Human Development Index [11] is above 0.8. Countries in grey do not have a FAO fisheries profile and countries uncoloured are non-parties to CITES.

This study highlights how **the exclusion of fisheries authorities is institutionalised at national level**. It does not necessarily reflect how well countries are implementing CITES decisions and system since in some countries, the CITES national authorities are very regularly consulting the fisheries-related specialised agencies when it comes to the management of CITES-listed CEAS. However officially, these authorities do not get to take decisions as this rests with environment or non-fisheries experts. And this can happen in all countries where CITES authorities do not include the responsible fisheries-related agency.

This globalised discrepancy between CITES authorities and the usual national agencies in charge of aquatic species management and conservation generates **another gap that has the potential to hinder CITES implementation and related measures from being incorporated and appropriated into the national fisheries management measures**.

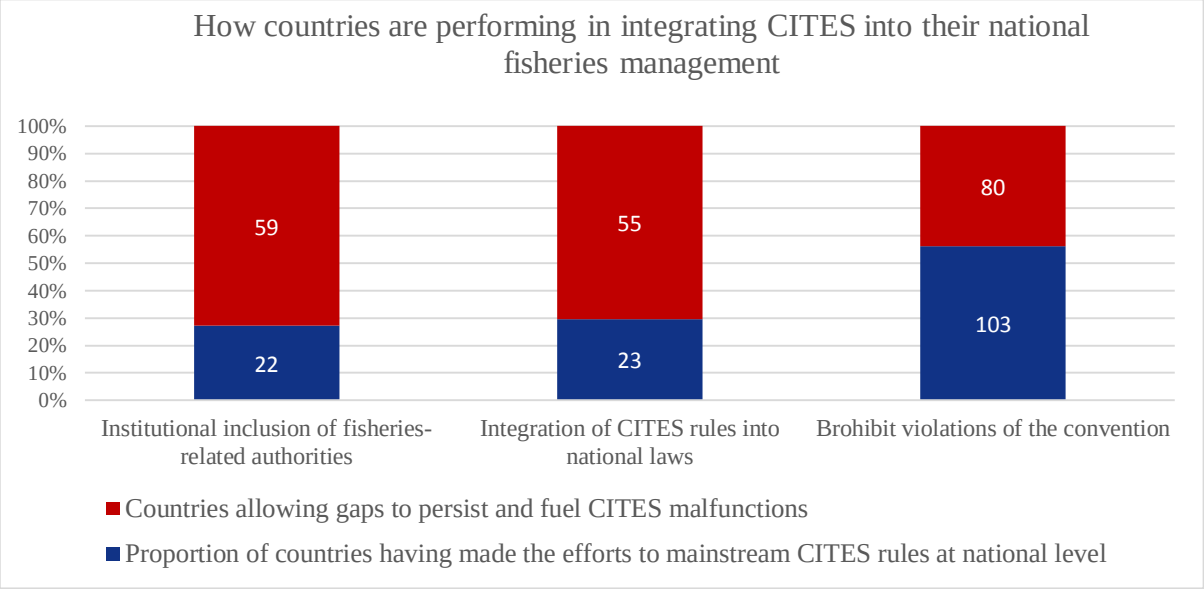
Another way of showing this gap at national level is by analysing **how countries translate the CITES rules for aquatic species in their national laws regulating fisheries.** A study by the FAO fisheries legal team to be published later in 2020 (FAO 2020a) showed that **only 23 out of 78 analysed parties had integrated CITES measures for marine species into their national laws**. And even if CITES is supposed to be a legally binding agreement, its mode of action is via the national laws of its Parties; CITES provisions are promoted for uptake in countries, with no law of its own over-riding national legislation. Therefore an estimated 71% of CITES Parties have a legal gap that needs to be overcome to ensure compliance with CITES provisons is supported by legislation; **non-compliance with CITES measures when it comes to listed marine species conservation is often not illegal.**

A criminology report focusing on illegal wildlife trade and analysing all 183 CITES parties also showed 85 parties did not have a designated CITES enforcement authority and **80 parties did not prohibit violations of the Convention** overall in their national legislation. These figures also highlight a general **lack of attention given to discovering violations of the Convention** (Wyatt 2019)**.** Marine species are just a piece of the puzzle but the CITES' Parties have been recognised before to not pay adequate attention to comply with CITES.

These results highlight challenges of fisheries authorities in CITES member countries, and opportunities to increase achievement of CITES mandated provisions (legally binding provisions) by:

- Making sure their fisheries-related agencies are further empowered by CITES rules and in charge of implementing them (or at least make sure they are consulted by the CITES authorities when taking decisions for CEAS management).
- Ensuring CITES' binding commitments are supported by regulations in national laws.

[11] As defined and calculated by the UNDP : http://hdr.undp.org/en/content/2019-human-development-index-ranking



Graph 7: Summary of parties' performances when it comes to integrating CITES into their fisheries management policies at national levels

II-4/ Fisheries stakeholders' representation in CITES networks at a globalised level.

The previous sections revealed how attendance at CITES Meetings and the siting of CITES national authorities **extenuated the divide that fisheries management agencies and stakeholders need to overcome to operate in the CITES arena**. In approaches, vocabulary, objectives, criteria and definitions of what species is deemed as needing stronger protection. **This divide is clearly institutionalised** and expressed at national level in most CITES parties. The CITES designated authorities are most often biodiversity conservation with national fisheries-related ministries or agencies not listed participants. This strengthens the phenomenon of streams of effort operating in silos, a phenomenon common within governments and business, which has been identified as a **source of miscommunication, a lack of awareness and trust in CITES that compromises greatly its implementation**. This national lack of institutional mainstreaming of CITES management and implementation can also be perceived at a global scale.

At international scales, the inter-governmental bodies in charge of fisheries management are the Regional Fisheries Bodies (RFBs) and Regional Fisheries Management Organizations (RFMOs). These are **the international specialised authorities** with responsibility of fishery scientific assessments and implementation of binding and voluntary fishery management and trade measures.

"The countries send their fisheries people to RFMOs meeting and their conservation people to CITES meetings. The problem is often they don't harmonise their positions beforehand. So you could have the same country taking very different positions depending the room they are speaking in" (CITES stakeholder interview, July 2020). This statement confirms how, **at national scale**, the biodiversity conservation and fisheries communities of practice can be **divided**, that they are not used to efficiently cooperate nor communicate and that it has consequences on the countries position statements in international meetings and conventions.

On a **world stage, the divide can be even more apparent**. Many institutions, conventions, organisations and meetings are classified by stakeholders as **either biodiversity conservation or fisheries based and oriented**. The insiders use a much polarised vocabulary, talking about "sides". They are often considered as opposites or enemies. **One "side" fighting or out casting the other**. And stakeholders, actors, people having the reputation of belonging to one side and trying to bridge the two, mainstream policies, going to meetings or events organised by the other side are often left feeling **alienated, isolated and helpless**. This appears to be true **on both sides of the biodiversity conservation or fisheries gap**. Which might explain how much room is left for improvement to try and mainstream the efficient management of CEAS.

It would seem that **focusing on maintaining marine ecosystems health and efficient implementation could help bring the two sides to work together** but so far there is a fight for power, reputation, decision making as well as related funding that continues to prevent efficient cooperation. **CITES is no exception in this regard**.

In the following part, the CITES stakeholders interviews highlight and illustrate the **social constructs building and maintaining the walls of "sectarian aberrations"** (CITES stakeholder interview, July 2020) between the two communities of practice and keeping them from focusing on mutual aims, results and efficiency.

III-Key cases and interviews illustrating and explaining the challenges of CITES mandate achievement when it comes to marine species.

Interviews were conducted with 30 CITES related experts between May and August 2020. These interviews were agreed upon by

- **fisheries management stakeholders** (10) working at global scale (FAO, WCPFC, SPC, IATTC, ICSF, IOTC, Carribean Network of Fisherfolk Organizations) and at national level (fisheries' representatives in France, mainland and overseas territories)
- **threatened species experts** (3) working at global scale and based in the Hong-Kong, US and Japan
- **biodiversity conservation agencies representatives** (8) working at global scale (CBD, WWF, Sea Shepherd, WCS) and some at local scale (Costa Rica, France, Peru)
- **fisheries scientists** (3) one working at global scale and based in the US, the others at national or regional scales and based in Australia and Europe
- **illegal wildlife trade specialists** (4) working at global scale either for the UNODC or Academia and based in Europe
- **social scientists specialised in fisheries matters** (2) based in the US

The questions asked being highly political, **most interviewees expressed the wish to remain anonymous**. Which also allowed them to offer their personal points of view and feelings without fearing repercussions for themselves or the organizations they serve. The analysis aimed to condense each experts experience**, considering their representation as stakeholders involved in CITES. The interviews looked for** explaining behaviours, position statements in regards issues with the function of the Convention when dealing with marine species (McOmber 2002; Cooney et Abensperg-Traun 2013; Duffy 2013; Cochrane 2015; Foster et al. 2019; D. W. Challender, Hinsley, et Milner-Gulland 2019; Friedman et al. 2020).

Preliminary explanation of the **social sciences notions** chosen to be used in the following analysis:

- **Boltanski and Thévenot theory of economies of worth**

Introduced in 1991 in their book "De la justification. Les économies de la grandeurs" (Boltanski et al. 1991) this theory applies when, in any controversy, stakeholders feel the need to justify their position or behaviours. Then their arguments are based on "orders of worth" they connect to (or pretend to connect to). The authors identified 6 orders of worth defined by different sets of values that motivate actions and found positions:

- Inspired: passion, emotion, creativity, beauty
- Domestic: tradition, family, proximity, trust
- Opinion: reputation, fame, visibility
- Civic: association, equity, common good, collectivism
- Market: competition, value, business, revenue
- Industrial: efficiency, sciences, exactness, expertise

These orders of worth can never be even. They can equally be invoked by anybody in order to criticize, to justify or to reach an agreement with someone.

In a given controversy, the different stakeholders (from individuals to international organizations) belong or identify with different orders of worth, it founds a profound disagreement. The objective of using this framework when assessing and trying to overcome such cases is never to make people change their orders of worth or their justifications (this would be the same as trying to change their personal values) but to make sure each understands the other's justifications to recognise the legitimacy of their arguments and position.

Understanding the different orders of worth involved in a controversy, even in a situation without an expressed conflict, can guide the choice of means resolving the controversy, to try and answer to all the stakeholders' needs and ease the process of finding a mutual agreement, a compromise or for them to accept cooperation.

-**Social learning** is a general concept of how individuals who come to know of a behaviour have the tendency to overestimate the proportion of people behaving the same way. Especially if there is a negative perception of said behaviour (e.g: non-compliance or corruption) building a subjective social norm often very different from reality based on one or a few examples.

It may be helpful to consider now how **CITES is fundamentally an agreement belonging to the civic order of worth**, since **its mandate serves the common good** (ecosystem health achieved by safeguarding biodiversity abundance). This order of worth is generally also very aligned and often utilized by biodiversity conservation stakeholders. Which might explain why they dominate the representation within CITES' realm and are very comfortable in this sphere and line of work. However some individuals' motivation is inspiration: they defend marine biodiversity because they find the oceans and some of its emblematic creatures beautiful and fascinating. Some others' is opinion, wanting to be recognised as world experts, fuelled by personal aspirations.

The fisheries stakeholders, on the other hand are more used to operating in the domestic (fisheries communities), industrial (researchers) or market (private sector) orders of worth even if they also implement sustainable management measures for the conservation of fish stocks supporting livelihoods for the common good and protect the communities depending on CEAS' conservation.

Individuals who are motivated by different orders of worth often use the civic order of worth to **justify their actions and radical positions**. Aligning their arguments with the Convention's justification, they theoretically **protect themselves and the organization they represent from being further challenged**. A behaviour that is often observed and described as "upscaling the justification".

The next three sections will analyse the views expressed during the interviews using this reading grid.

III-1/Views expressed by respondents closely aligned to biodiversity conservation

On the inclusion of the fisheries sector in CITES' institutional structure (in CoPs' participation and at national scale in the CITES authorities):

Biodiversity conservation aligned respondents most of the times **justify** the under-representation of fisheries communities of practice in CITES' discussion and decision-making arenas with the following arguments:

- The **lack of will to implement biodiversity conservation measures**. They quote past events or behaviours that are hard to verify but play a major part in the **perception that the fisheries stakeholders are mainly economy-driven** and would not take conservation measures unless forced to. Interviewees often mentioned cases of **countries perceived as "controlled by the fishery industry"** buying votes of other countries to prevent listings from happening.
- The **perceived corruption within fisheries related organizations and agencies**. Many cases were documented in the past (OECD 2018; Oceana EU 2019; UNODC 2019; Ewell et al. 2020). As explained by the notions of **social learning**, stakeholders tend to **generalise these bad practices**, **building a subjective social norm and reputation encompassing "all" fisheries communities**. This perception leads conservation stakeholders to radicalise their positions, as they feel threatened by the potential corruption from "the other side". This justifies the marginalisation of fisheries communities of practice from conservation meetings. CITES is just an example of this generalised phenomenon.

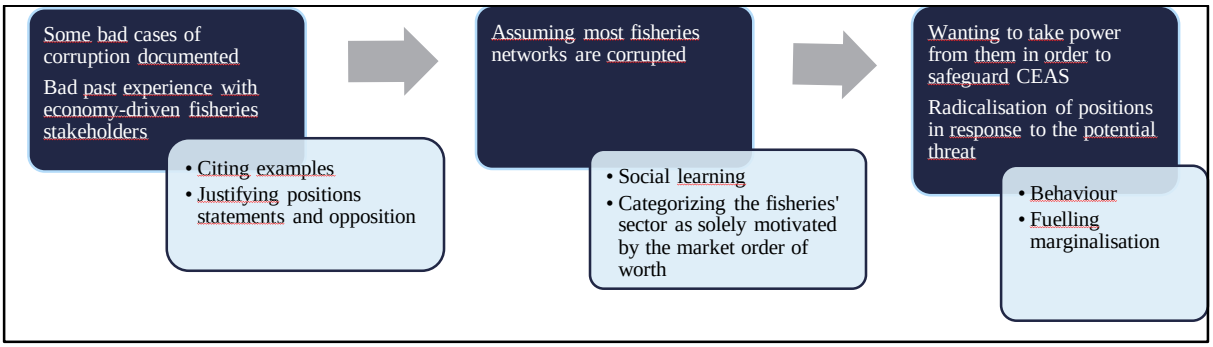


Figure 4: Summary of conservation stakeholders' justification of fisheries stakeholders' exclusion from CITES' networks

In both these patterns, biodiversity conservation stakeholders are using the market order of worth they perceive as founding the fisheries' sector's interests to justify an exclusion from a civic arena which they, themselves, claim to serve. They **discrediting** the fisheries stakeholders for being perceived as fighting against the decisions towards the common good.

In other cases, stakeholders **deny** the under-representation of fisheries communities of practice at CoP. They argue that

- **Fisheries stakeholders are integrated in the national delegations**. And following the same thinking pattern as previously, they quote examples they know illustrating fisheries economic actors being amongst national delegates, financing the whole delegation and "buying" the votes against listings. Then they generalise this idea and experiences and assume many national delegations are controlled by fisheries industry insiders.
- Even if fisheries stakeholders are not integrated IN the national delegations, they **influence their national government's position statements and votes prior to CoPs through lobbying work**. This perception of governments and national delegations being under the influence of fisheries industry pressure was also generalised. It is then argued that, even if not physically present at the meetings and in CITES decision-making process, fisheries related communities make their voices heard through their national representatives.
- Some argue that fisheries communities are "**far well enough represented through FAO" being present and given the floor** at CITES CoPs

These justifications support the general demonization of the fisheries stakeholders and communities (often used in the press or social media), explaining **hostile behaviours towards them, fuelling their marginalisation from discussions, meetings and decisions**.

It was also interesting to note that, several times, conservation stakeholders would qualify CITES as a "powerful tool", also mentioning how "it was and is the opportunity we needed to finally **balance power and decisions towards conservation**". They express their attachment to CITES almost fondly. It was also clear how almost all conservation stakeholders knew each-other, were looking forward to the next events to see each other again, quick to recommend other organisations, experts or colleagues to interview. This shows an **important connectivity** within the biodiversity conservation networks and communities of practice, coming both from formal and informal relationships between organizations and individuals. This probably participates in making this "side" louder and stronger.

III-2/ Views expressed by respondents from the fisheries community of practice

Firstly, compared to biodiversity conservation advocates, most fisheries' stakeholders interviewed were **less familiar with CITES**. Unless they had had a special history with the Convention (fishing a species that got listed on a CITES Appendix, participating in NDF studies, seeing their practices criminalized, having worked with communities that lost access to international markets because of poor implementation…), they usually were less familiar with the Convention's **vocabulary, rules and framework**. They also showed a **weaker connectivity** in the fisheries networks and communities. They did not necessarily know the other fisheries stakeholders interviewed, the decisions taken outside of their own community or organization. Another common point made by most fisheries stakeholders was how **CITES is only one of the conservation conventions and agreements they have to deal with**. Having different rules, appendices and rules. Which makes everything more **confusing and less readable.** They notably mention how CITES and CMS appendices have different listing criteria, do not list the same species and confuse stakeholders.

On the inclusion of the fisheries sector in CITES' institutional structure (in CoPs' participation and at national scale in the CITES authorities):

The fisheries stakeholders **justify** their under-representation at CITES mostly by:

- A **lack of interest**. They perceive CITES as a biodiversity conservation tool that has little to do with fisheries management objectives. This shows how the **mandate overlap is sometimes not clear yet** to fisheries stakeholders, failing to interest them and enrolling them in the Convention's work. They also argue that the meetings are expensive to attend and most of the time is dedicated to **subjects disconnected from fisheries**: plants and terrestrial species making up the majority of discussions (as shown *Graph 1*), making it not worth the cost of attendance.
- Admitting **they feel protected by their national governments**. In these cases they admit to the link mentioned by conservation stakeholders between the fisheries communities and the national delegates defending the same positions and interests. But that is not the generalised case.
- The lack of will. Having been confronted to conservation stakeholders in the past, finding them aggressive and little result-oriented, fisheries communities representatives often mention how they were reluctant to work with them again. Again, the different vocabulary, approaches and concepts fuelling this **miscommunication and misunderstanding**, keeping the two sides from effective cooperation in achieving common goals.
- **Discrediting the Convention listings**. Fisheries stakeholders often mention the lobbying work done by biodiversity conservation stakeholders both at CoPs but also prior to the meetings at national level. They link this to how often the **Parties adopted listings even against the scientific advice**. Such cases support their argument of CITES decisions being taken mainly for political showcase of good will towards biodiversity conservation for governments and as conservation "battle wins" justifying funding for conservation agencies and organisations. In both cases, fisheries stakeholders discredit such decisions as **they perceive little implementation and enforcement measures are taken.** Making the listings meaningless and of little relevance to them. An interviewee argued "if they actually wanted efficient conservation, they would take less decisions but would focus on making them happen in real life".
- **Discrediting the CITES stakeholders** present at CoP. Some fisheries stakeholders readily discredit both national representatives and conservation observers sent at CITES CoPs as "**knowing nothing about fisheries management**" and never "having been to an RFMO meeting". These interviewees would deem everything said and decided by these conservation stakeholders as irrelevant. Biodiversity conservation stakeholders are also perceived as a "**club**" and this also an argument used to discredit their work. Their enthusiasm and passion can be perceived as frivolous and their motivations identified as completely disconnected from the socio-economic impacts of decisions taken with CITES circles. An interviewed fisheries scientist even qualified these behaviours as "**sectarian aberrations**" having very little to do with neither science nor efficient management. In the same thinking pattern as analysed before, fisheries stakeholders radicalise their positions, demonize the other "side", refuse discussion and cooperation with people they perceive as ignorant and irrelevant to their work.

In all four cases, these arguments are used to **justify the absence of constructive collaboration** between fisheries and conservation communities of practice. Again, CITES is just an example expressing an overall lack of working cooperation between the two.

In the economy of worth approach, **fisheries stakeholders also use justification to excuse their marginalisation of conservation stakeholders from their own meetings** and decision-making process. They argue that:

- Conservation stakeholders are all motivated either by the inspiration or fame orders of worth. Which keeps them from having a comprehensive vision of marine ecosystem health, **being very disconnected from the communities actually depending on them**, understanding and knowing very little about fisheries management approaches.
- The sentiment of fisheries is well described by statements fishery community representatives made during the COFI 2020 conference on the CBD biodiversity framework for post-2020: "Who feels it, knows it", "to manage is to conserve" and "we take pride in being good managers". They justify **working for the common good**, being the adequate stakeholders to express the civic order of worth through their field experience, empirical knowledge and familiar involvement in CEAS' efficient management. Once again keeping cooperation from happening by **justifying fixed positions**, claiming the complete mandate for CEAS management.

Such justifications **support both the non-involvement of fisheries representatives at conservation meetings as well as the non-involvement of biodiversity conservation representatives at fisheries management meetings**.

The interviews brought to light how neutral stakeholders need to fight against very old and deeply-rooted social constructs that are hindering the improvement of bilateral understanding and cooperation needed to achieve overlapping CEAS aims, as articulated in the CITES' mandate. However there are definitely ways of doing so and the present lack of mainstream is far from being irrevocable (see IV-1/).

III-3/The overall call reflecting Parties' ultimate responsibility

"It all comes down to the countries". In both communities of practices, this argument is used **to justify their own inaction towards collaboration and mainstream**. Stakeholders express how, even if they want to make the necessary efforts to ensure CITES' mandate achievement through constructive cooperation, decisions and measures, the **final decision makers will always be the national governments**. They are the ones in charge of:

- voting in favour or against appendices amendments in CITES
- taking decisions within RFMOs as to the management of international waters' resources and shared stocks
- Implementing CITES' decisions at national levels: making sure their MA and SA have the necessary capacity to be able to apply CITES rules – communicating all decisions and national commitments throughout all their national entities involved (border controls, law enforcement forces, fisheries communities, conservation managers…)
- Coordinating their environment and fisheries ministries to ensure adhesion, compliance and enforcement of both management and conservation measures
- Drawing their legal framework to be adapted to their national contexts and needs (some culture needing strong legal tools to make stakeholders stick to the national political direction, in other countries it is very unlikely to use legal tools to ensure adhesion).

There is a strong perception in respondents that, when one of the commitments was not being achieved (be it in relation to listing or implementation), it is due to a **lack of political will**. This perception discourages communities of practice in their delivery of effort, since they believe the national authorities that are bound to acting on such international agreements will somehow not follow through on their promises and commitments.

But it should not be forgotten that when it comes to fisheries and marine resources management, the main hurdle on national implementation is not necessarily a failure to commit, but also a **lack of awareness and capacity**. This was stressed and mentioned mainly by species experts and social scientists. Some countries simply do not have the means to comply with CITES provisions and **need assistance** in order to achieve the goals stated above. This capacity shortfall issue is more apparent as **developing countries make up for an ever growing part of fish trade both in value and volume**. See figure 3 below illustrating this clear trend (FAO 2020b).

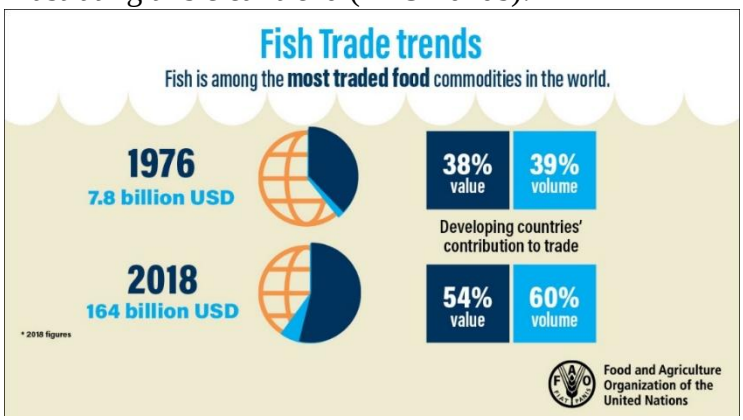


Figure 5: developing countries and their growing importance in the global fish trade

This calls for **more attention, funding and support programmes** to assist countries in achieving CITES' commitments. Some conservation NGOs have identified this need and are working towards helping governments to better implement the convention. However most conservation stakeholders are still focusing on the listings and trying to increase the number of species falling under CITES provision. **Without the follow-up efforts, these listings are at risk of becoming more and more meaningless.** And CITES could "become another missed opportunity to efficiently achieve sustainable management of marine species".

III-4/Interviews synthesis and symptomatic examples of CITES' challenges

The table ANNEXE 2 illustrates the main views expressed by interviewed stakeholders. It summarises **the reasons most often mentioned and perceived as explaining the institutionalised divide within CITES between fisheries and biodiversity conservation communities of practice**. The arguments were generally different depending on the scale at which the interviewees work at. The local scale being a bit less polarized.

It was interesting to note that some stakeholders were keen to mention how generalised phenomena were not always accurate, mentioning how **within organizations, institutions and administrations, some individuals were easier or harder to work with**, are more or less entrenched, biased and aggressive. Making a cooperation/collaborative work experience more or less practicable. This recalls how some individuals have the ability, and are recognised as key communicators and boundary spanners. These people can in some cases hold an entire network together. Through their professional responsibilities as well as because of their force of personality and reputation. CITES' network appears to lack such **communicators enabling cross-sectorial cooperation**.

But the majority of interviewees (21 out of 30) would not spontaneously mention such nuances.

Below are four examples from interviews with stakeholders and the literature illustrating the challenge, consequences and opportunities for improving the institutionalised divide between fisheries and biodiversity conservation communities of practice within the realm of CITES

➔ **The lack of follow-up efforts - the infamous case of seahorses:**

Seahorses are traded internationally either dried for the traditional medicine market or live for the Aquaria market (Vincent, Foster, et Koldewey 2011). The genus Hippocampus spp was listed in Appendix II in 2002. Since then, all major exporters either have banned or are under CITES trade suspensions because they failed to issue the NDF certificates or did not take appropriate trade restriction measures to ensure the sustainability of the volumes traded. But despite this theoretical complete (98%) protection of seahorse species from international trade pressures, the now **illegal trade** is still fuelling the markets and meeting the demand for these species (Foster et al. 2019). This was an example often mentioned by the interviewees to illustrate how CITES listings without appropriate support to countries to implement and comply with such important global decisions could end up doing nothing for the conservation of the listed species. In addition a shift to prohibit trade also **made work on monitoring catches and assessments of wild stocks difficult to achieve** as theoretically no action was legally occurring and therefore there was no opportunity for managing authorities to receive fishery reports.

This is a reminder that **decisions taken without adhesion and enrolment of the appropriate stakeholders involved are likely to not be complied with** and in CITES' realm, can have detrimental consequences on the species' survival.

➔ How **little national coherence and consultation can have devastating consequences: the example of Costa Rica**:

In 2013 at CoP16, Costa Rica was amongst the proponents Parties suggesting the listing of three species of hammerhead sharks of commercial interest in Appendix II. This proposal was approved and the species were listed, falling under CITES provision. At the time, Laura Chinchilla was president of Costa Rica and she was named Shark Guardian of the Year by the German environmental group Sharkproject for her continuous fight against shark finning (The Tico Times Costa Rica 2013). Following this political stance at CITES, the fisheries communities organised **protests and lobbying pressure actions** on the government. The next president, Luis Guillermo Solís was elected in 2014. **He authorised exportation of CITES-listed hammerhead shark fins without any NDF study conducted beforehand** and Costa Rica entered reservation for these hammerhead shark species. In 2015, President Solís announced the country would no longer support any listing of shark species having commercial interest (insidecr 2015; The Tico Times Costa Rica 2015). And in 2016 at CoP17, Costa Rica opposed the listing proposal to get more shark species in Appendix II (The Tico Times Costa Rica 2016). This was a complete political backtracking after the fisheries communities' protests. This created confusion and frustration from the general public, the conservation as well as international communities. After years of negotiations and collaborative work between the government, the scientific, the conservation and the fisheries communities, Costa Rica was able to conduct the appropriate NDF studies, leave reservation for the listed hammerhead sharks species, respect their engagements in CITES and ensure sustainability of the fisheries exploiting these species in their national waters and of their products entering international trade. But adequate consultation of the fisheries administration before the position statements officially taken by the country at CoP16 back in 2013 could have prevented the conflictual and frustrating backtracking.

In the long run, this whole process still brought conservation progress and some would argue that **conflicts actually usually have positive and innovative outcomes** from forcing parties to confront each other, collaborate and co-build measures and solutions (Beuret et al. 2018).

But in CITES framework, the optimal process would involve the Parties' institutions in **evaluating** the pressure put on species by international trade, the socio-economic impacts of a listing and the measures the stakeholders can realistically take. Then draw the listing proposal, then ensure the international community aligns with conservation measures to ensure international trade in these species is sustainable.

➔ Illustration of **how institutional divide and bureaucratic radical position statements can tear down efforts towards sustainability – precious corals in New Caledonia**:

In New Caledonia (France), the local CITES authorities are:

- MA: the veterinary state services (Direction des affaires vétérinaires, alimentaires et rurales (DAVAR) SIVAP: service d'inspection vétérinaire alimentaire et phytosanitaire au Port Autonome)
- SA: the research institute development (IRD Nouméa)

An exporting business identified market opportunities for the export of precious corals (order Antipatharia and family Coralliidae) that were already listed in CITES appendix II. This private company already worked with other CITES-listed species (farmed giant clams *Tridacna gigas* and 2 species of seahorses) hence was familiar with the CITES regulations and documents. They started contacting all the local stakeholders that would potentially be involved in the management of the coral species of interest, building a cooperative network. Notably: the marine research institute (IFREMER) and 4 municipalities. They collaboratively worked on this new project, conducting the NDF, building collaboration plans on the long run to ensure sustainability, controls and business-scientific partnerships to increase knowledge and data collection on the species of interest. They all collaboratively agreed on an exploitation plan that satisfied all parties, complied with CITES requirements and would create a new sustainable fishery for New Caledonia. This exploitation plan was agreed upon by the local CITES MA. Then the local CITES SA blocked the whole process and refused to approve the NDF studies conducted by the local scientific experts from IFREMER. This irrevocable position was justified as a political one, a principled opposition because the institute thought it would be "too much of bad publicity to allow a new pressure on our lagoon", disregarding the whole effort of ensuring the sustainability of said pressure. The scientists in the CITES SA were not specialised in marine biology nor in fisheries management, nor were they familiar with any of the specialised stakeholders involved in the study. It was mentioned how they were perceived as having a bias against the fisheries sector, especially in the private sector, which could have also motivated their opposition. They were described as "only working in fundamental research and taking advantage of CITES provisions to have a power they would normally not have". This might also link to the issue mentioned earlier as to how individuals' personalities and sets of skills could facilitate or obstruct the bridging of the institutionalised divide between fisheries and biodiversity conservation communities of practice. It appears that **collaborative skills might be as important as specialised research skills** in administrations and organisations involved in CITES management when it comes to marine species.

➔ The current almost complete failure of uptake of the commitment to implement "**introduction from the sea**" measures:

As explained in I-2/, IFS measures regulate the landings of CITES-listed species "taken in the marine environment not under the jurisdiction of any state", more commonly understood and interpreted as animals fished in international waters. The defining text of these rules were revised and clarified in 2013 at CoP 16 (CITES 2013) but exist since the first definition text of the convention written in 1973 and was last amended in 1983 (CITES 1983). Despite existing since nearly 50 years, these rules supposed to ensure sustainability in the harvest of listed species from international waters were never implemented. Only nine Parties had reported IFS transactions in 2018 (CITES 2018). Which is a surprising number knowing how many countries actually fish in international waters (nearly all 183 Parties to the convention). This can be interpreted as a decision adopted within CITES provision but was never really translated into implementation measures. Showing how decisions taken at global level, even if theoretically legally binding for all CITES Parties, could never be applied in reality. Again, it was highlighted how the CITES authorities being different from the usual fisheries management control administrations was creating difficulties. Showing another example of how either mainstreaming the communication and work between ministries or making sure the adequate administrations and agencies are involved in CITES implementation could be a starting point to increase compliance with the commitments taken at international level. It was also argued that this lack of implementation is discrediting CITES administration since the solution they voiced for this particular lack of compliance was to continue working with "relevant partner organizations". And once again, it was highlighted how it was all in the hands of parties, at national level, needing to act up to their commitments, making sure their authorities were systematically checking the NDF and CITES permits accompanying the species landed in their ports and having been harvested from ABNJ waters. And in 2019, Parties expressed a need for support in technical guidelines to conduct the NDF studies, which asked for capacity building (CITES 2019b). Since then, CITES Secretariat has worked with FAO as well as the development of an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (ABNJ). They were also planning on a greater collaboration with RFBs but this did not materialised yet, except in some meetings on shark management. In these meetings, the overlap of PSMAs and IFS were highlighted as well as **how RFBs could use both these frameworks to strengthen their mandate.**

IV-Moving forwards, lessons learnt and recommendations towards strengthening of CITES' actions

IV-1/When CITES delivers for marine species – the examples illustrating lessons to learn

A range of encouraging situations were identified in interviews with experts. A few cases are described below:

- **Problem awareness**: a range of biodiversity conservation stakeholders are already conscious of the **current marginalisation** of fisheries stakeholders, understand it and want to actively take part in putting an end to it. A biodiversity conservation NGO representative even said: "plant people are in fact much more objective and efficient because they don't have the NGO people barking at them like animal people do". Admitting how some NGOs' passionate devotion, advocacy and lobbying in animal conservation discussions are

influencing decisions in a way that is resulting in less objective and meaningful outcomes. This issue is **more and more recognised and discussed**. The decisions on marine species can be very emotive, some biodiversity conservation stakeholders would "vociferously campaign for […] listings and celebrate them as conservation victories" (D. W. Challender, Hinsley, et Milner-Gulland 2019). To the extent that CITES' standing committee even adopted a code of responsibility, **trying to frame the political influences** and agendas involved at its meetings and keeping the decisions taken from being objective (CITES 2017; Duffy 2013). The rising awareness and recognition of how failing to include the fisheries is a threat to the optimal achievement of CITES' mandate can fuel future collaborative initiatives.

- **Radical positions are not mainstream**: the radicalisation of positions is often less pronounced at local scales. In some cases, biodiversity conservation NGOs and fisheries communities have had a **long history of successful partnerships and collaborative work**. This was not easily achieved, demanded time, long discussions and negotiations. But after building trust, they did manage to **recognise each other's legitimacy**, knowledge and role in working together towards marine resources sustainable management. These positions are less based on institutional reputation and more on **personal bonds and professional relationships**. Which might explain why they are harder to achieve at larger scales.

- **Fisheries support strong actions**: in some cases, the fisheries industry stakeholders themselves identified a specific threat, realised the need to take conservation measures, implemented them and then used CITES as a mean to highlight their efforts on international markets. These **bottom-up approaches need to be recognised, encouraged and enabled.** They are great ways to achieve CITES' mandate for marine species.

IV-2/Recommendations and innovative ideas

Based on the theoretical hypotheses formulated in II-, the analysis of stakeholders' interviews in III- and lessons learnt from positive situations presented in IV-2/, hereafter are recommendations that should be considered when wanting to improve the achievement of CITES' mandate for CEAS:

-**Implementation in focus**:
Biodiversity conservation NGOs **need a shift in attention** towards the follow-ups of CITES listings. The actual efficient conservation measures were proven to mainly happen within resources **sustainable management** arenas of discussions and decisions. "The listings are only the beginning of the work", focusing and investing solely on them is participating in CITES' decisions losing credibility. This discredit is fuelling distrust from fisheries management stakeholders, preventing collaborations and having repercussions on the overall efficiency of conservation measures. Biodiversity conservation institutions need to realise how "**business as usual**" in this case is continuing pushing for more CEAS to be listed in CITES' Appendices without supporting these decisions on the field, providing real protection hereby continuing to increase the current divides and challenges.

-**Build interest** for meetings, events, work of "the other side" for both sides. By always highlighting the mandate overlaps, how they will not be optimally efficient without being in a **constructive working relationship with one another**. CITES secretariat could try and make sure all CEAS matters are addressed during a shorter timeframe at CoPs to convince fisheries managers CITES meetings are worth attending, at least for these specific days. It would reduce cost for fisheries managers to attend and prove good faith in trying to welcome them in the discussions. In parallel, fisheries management meetings could welcome more biodiversity conservation organizations' representatives, by formally inviting them when addressing subjects such as bycatch, IUU fishing, retention bans etc.

-**Increase the enrolment** of fisheries managers in CITES decision-making process, at all scales. Reminder that enrolment can only happen after **information, consultation and discussion/negotiation**. Hence, in CITES framework: informing/raising awareness of CITES provisions, organising consultation before submitting listing proposal, encouraging rapprochements/discussions/negotiations between CITES official authorities and fisheries management communities. These rapprochements and fisheries managers feeling in charge of CITES provisions for CEAS would also encourage and enable bottom-up initiatives.

-**Build proximity** through workshops, projects, brainstorming and issue resolution meetings or retreats. These are meeting categories that encourage actual dialogue, outside of bigger, more formal institutional meetings and could be organised and funded to bring the two sides together**, at all scales but especially at national level**, to try and **focus, for once, on subjects less controversial and devising than conservation decisions and measures**.

Example 1: how to efficiently fight IUU fishing through CITES' framework?

Example 2: how implementing PSMAs could help ensure sustainable use of marine resources? (See *Annexe 3* for further development)

Both these subjects having potential **positive impacts for everyone**, they could **help build proximity and deconstruct prejudices** by having people actually meet, talk, collaborate, brainstorm, innovate on something both ministries would benefit from.

Building proximity in the long term requires: long-term projects, follow-ups, evaluation of results. This kind of initiatives help building trust, recognising each-other's legitimacy through the start of professional and personal relationships people will maintain throughout their careers. These projects should be seen as investments for the future and could require a mediator/facilitator.

-**<u>Increasing transparency/sharing data and information</u>**: is another way to help deconstruct prejudices. CITES secretariat ad parties should encourage increased transparency on:

- CoP side events since it is argued they hold a particular importance in influencing the delegates
- The composition of national delegations (delegates' affiliations) at CoP since it is argued they are funded and controlled either by the fishery industry/lobby or by biodiversity conservation lobbying groups. This would also help understand which competence the Parties are giving a priority to within CITES arena of discussions
- Making NDFs studies and methods public would help build trust in other parties, proving scientific effort to assess sustainability. These documents could also be helpful precise guides to parties with less technical and financial means to create their own NDF studies, harmonising methods, helping with data collection and stock assessments. It could also drive new scientific collaborations between different Parties having the same needs.
- Building listing proposals. It is argued the current process of working on CITES listing proposals happens behind closed doors, through political lobbying and keeping them secret as long as permitted to ensure they will be accepted. Increasing consultative processes in this preparation could help ensuring these proposals submitted by Parties are actually deemed appropriate by all stakeholders, building trust and acceptability, facilitating adherence and enrolment in implementation.

This general idea on transparency might seem naïve but the generalised recognition of CITES underperformance in safeguarding marine species is making **clear cooperation is now critical to ensure ecosystem health**. And cooperation is only practicable if both sides

recognise the legitimacy of the other. In order to **prove their legitimacy**, both sides should accept to increase transparency of what they do, how they operate and "show clean hands". Sharing data is also usually **the basic start to efficient collaboration**. Then, regular communication, at adequate frequency, and continuous efforts to build and maintain trusting relationship can strengthen a cross-sectorial network.

-**Reverse social learning**: some biodiversity stakeholders are convinced all fisheries stakeholders are economy-driven, corrupted, do not care about conservation. Why not prove them wrong by taking them to the fishing communities where sustainability has always been a priority, where people's lives depend almost solely on marine ecosystem's health. Organizing social workshops or seminars building cohesion across fisheries communities at local scale and biodiversity conservation stakeholders operating at larger scale. Reminding them that **ecosystem health has always been a common goal**. This also links to how westernised is the civil society representation in biodiversity conservation networks, creating a bias in views, **forgetting huge parts of civil society that are actually suffering first when marine ecosystems' health worsens.**

Conclusion

This study showed how CITES' challenges in ensuring the sustainability of international trade of its listed CEAS currently results from **two main mechanisms within its framework**. These same mechanisms are also **opportunities to improve** the situation and aiming for effective work towards ecosystem health:

- Fisheries networks would benefit from being more enrolled within CITES institutional frameworks:
    - At local scale in the implementation of CITES provisions. A **raise in awareness, interest and means** are needed to do so.
    - At national level in the official CITES authorities. The Parties need to recognise the mandate overlap and include their fisheries authorities, in charge of conservation and sustainable use of CEAS, in their CITES framework. This necessary broadening of CITES' actors at national level could happen through at least formal consultation processes at best in giving actors in charge of sustainable use of CEAS the responsibilities and means to implement the Convention for these species.
    - At global scale :
        - Within the national delegations at CoP or at least ensuring thorough consultation before the meetings
        - In observers' representation at CoP
        - In the listing proposals reviews process
- Biodiversity conservation and fisheries management communities of practice need to **be incentivised to collaborate and work together**. CITES malfunctioning when it comes to CEAS only being a symptom of underlying distrust, misunderstanding, lack of recognition of legitimacy and insufficiency of communication between these two worlds.

Detailed recommendations were formulated based on these study input that brought new understandings of what is hindering the establishment and implementation of CITES decisions and measures for CEAS and what is fuelling these hindrances.

This study showed collaborative and cross-sectorial networks, frameworks, projects and communities both formal and informal would likely have positive environmental outcomes.

Discussion

CITES' challenges when it comes to CEAS' safeguarding could benefit from further investigations. Some research and deepening areas suggestions could include:

-A detailed network analysis through a formal survey sent to a larger panel of respondents to formally objectify the network divides in CITES' stakeholders.

-Adding networks and communities of practice operating in law enforcement and criminology to the study but are also likely to benefit from better cooperation across sectors with biodiversity conservation and fisheries management to improve CITES' operation and environmental outcomes

-Adding governments' representatives to the study to investigate and objectify their perception of the lobbying pressures exerted by groups involved in CITES' realm in each Party

-Up-scale the CoP representation study to evaluate the fisheries' involvement in CITES' meetings over time and try to characterize its history

-interview experts from Africa which was the only region not represented in this study's experts' sample

-funding opportunities to build the cooperative projects and frameworks within Parties to help them better implement CITES at national scale

-explore other MEAs with the same methods to investigate whether they are facing the same phenomena and challenges or not. If they do, the collaborative initiatives could be useful for the achievement of these other MEAs as well.

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Annexes:

Annexe 1: CITES Parties' profiles data

Country	CITES status	date	MA designated								SA designated					
			Mix	More than 1	Conservation/Envi	Agriculture/Fisher	Autre	Would there be a more appro	Agricultural share of GDP	Importance of the fisheries	Mix	More	Conservation/Environne	Specialised in	Would there be a more appropriate marin	Human development
Afghanistan	Accession	1986			X			no	20	1			X		no	0.496
Albania	Accession	2003	X					yes	18,4	NA			X		Yes	0,791
Algeria	Accession	1984	X					no	11,98	NA		X		X	no	0,759
Andorra	Non-Party		X					no		?			X		?	0,857
Angola	Accession	2013			X			yes	10,02	4,6			X		Yes	0,574

Antigua and Barbuda	Accession	1997		X		yes	1,73	0,8	X		X	no	0,776
Argentina	**Ratification**	**1981**		**X**		**yes**	**6,1**	**0,1**	**X**		**X**	**no**	**0,83**
Armenia	Accession	2009		X		no	24,1	?		X		no	0,76
Australia	Ratification	1976	X			no	2,46	?	X			no	0,938
Azerbaijan	Accession	1999	X			no	5,25	1,8	X		X	no	0,754
Bahamas	Accession	1979	X			no	0,89	1,2			X	no	0.805
Bahrain	Accession	2012		X		yes		0,4		X		Yes	0,838

Bangladesh	Ratification	1982		X		yes	13,07	4		X		no	0,614
Barbados	Accession	1993		X		yes	1,3	0,1		X		Yes	0,813
Belarus	Accession	1995		X		yes	?	?	X	X		Yes	0,817
Belgium	Ratification	1984		X		yes	0,5	negligible		X		Yes	0,919
Belize	Succession	1986			X	yes	9,56	3	?			no	0,72
Benin	Accession	1984		X		yes	22,64	5		X		Yes	0,52
Bhutan	Accession	2002		X		? No FAO profile	?	?		X		?	0.617

Bolivia	Ratification	1979		X		yes	11,48	0,92	X	X		no	0,703
Bosnia and Herzegovina	Accession	2009			X (trade)	no	5.1	0.1	NONE			Yes	0,769
Botzwana	Accession	1978		X		no	2	negligible		X		Yes	0.728
Brazil	Ratification	1975	X	X	X (foreign affairs)	yes	4.36	negligible	X	X		Yes	0.761
Brunei	Accession	1990		X		? No FAO profile	5	0.4		X		Yes	0.845
Bulgaria	Accession	1991		X		yes	3,65	0,05	X	X		Yes	0.816
Burkina Faso	Accession	1990	X			? No FAO profile		negligible		X		no	0.434

Burundi	Accession	1988			X			no	29,01	1		X			no	0.423
Cabo verde	Accession	2005	X					yes	5,26	3,7	NONE				Yes	0,651
Cambodia	Ratification	1997	X					no	32,5	7	X	X	X		no	0,581
Cameroon	Accession	1981			X			yes	14.42	?		X			no	0,563
Canada	**Ratification**	**1975**			**X**			**yes (even if the ministry has fisheries specialists)**	**1.71**	**negligible**		**X**			**Yes**	**0,922**
Central African Republic	Accession	1980	X					no	31,24	1		X			Yes	0,381
Chad	Accession	1989		X	X	X		no	20,5	1,4		X			Yes	0,401

Chile	**1975 Ratification**		**X**	**X**	**X**		**no**	**3,64**	**negligible**	**X**	**X**	**X**		**no**	**0,847**
China	**1981 Accession**		**X**	**X**	**X**		**no**	**7,19**	**1,4**		**X**			**Yes**	**0,758**
Colombia	1981 Ratification			X			Yes	6,28	negligible	X	X	X		no	0,761
Comoros	1995 Accession					X (prof de l'UDC)	Yes	32,64	negligible	X				no	0,538
Congo	1983 Accession			X			Yes	¨7,12	1,7		X			Yes	0,608
Cook Islands	Non-Party														
Costa Rica	1975 Ratification		X				no	4,58	negligible	X	X	X		no	0,794

Côte d'ivoire	Accession	1995		X			Yes	19,77	1,5		X			Yes	0,516
Croatia	Accession	2000		X			Yes	2,85	negligible		X			Yes	0,837
Cuba	Accession	1990		X			Yes	3,78	NA	X	X	X		Yes	0,778
Cyprus	Ratification	1975			X		no	2,02	1,8	X				no	0,873
Czech Republic	Succession	1993	X	X	X		no	1,97	negligible		X			no	0,891
Democratic People's Republic of Korea (North)	Non-Party														
Democratic Republic of the	Accession	1976		X			Yes	46.7	NA	X	X			Yes	0,459

Denmark	**Ratification**	**1977**	**X**	**X**	**X**		**no**	**1,02**	**0,4**		**X**			**Yes**	**0,93**
Djibouti	Accession	1992			X		no	1,43	0,3	X	X			Yes	0,495
Dominica	Accession	1995		X			Yes	11,1	0,42	X	X	X		no	0,724
Dominican Republic	Accession	1987		X			YEs	5,15	0,3	X	X	X		no	0,745
Ecuador	Ratification	1975	X	X	X		no	9,24	1,5	X	X	X		no	0,758
Egypt	Accession	1978			X		no	13,2	0,5	X	X			Yes	0,7
El Salvador	Accession	1987			X		NO??	4,88	NA	X				Yes	0,667

Equatorial Guinea	Accession	1992	X		no	2,39	NA	X	Yes	0,588
Eritrea	Accession	1995	? No FAO profile							
Estonia	Accession	1992	X		Yes	2,66	NA	X	Yes	0,882
Eswatini	Accession	1997	X		no	8,59	NA	X	no	0,608
Ethiopia	Accession	1989	X		Yes	31,19	0,02	X	Yes	0,47
European Union	Accession	2015	X		Yes	1,1	?	X	Yes	NA
Faroe islands	Non-Party			X	no	??	??	X	no	NA

Fiji	Accession	1997		X		Yes	10,75	1,6		X		Yes	0,724
Finland	Accession	1976		X		Yes	2,46	negligible		X		Yes	0,925
France	Approval	1978		X		Yes	1,62	0,14		X		Yes	0,891
Gabon	Accession	1989		X		Yes	5,44	1,5		X		Yes	0,702
Gambia	Accession	1977	X			no	19,87	1,8	X			no	0,466
Georgia	Accession	1996	X			no	6,76	1,1		X		Yes	0,786
Germany	Ratification	1976		X		Yes	0,77	1		X		Yes	0,939

Ghana	1976 Ratification		X	Yes	18,27	1,1		X		Yes	0,596	
Greece	1993 Accession		X	Yes	3,72	0,35		X		Yes	0,872	
Grenada	1999 Accession	X		no	5,19	1,5	X			no	0,763	
Guatemala	1980 Ratification		X	Yes	9,98	1		X		Yes	0,651	
Guinea	1981 Accession		X	Yes	24,26	3,6	X	X	X	No	0,466	
Guinea-Bissau	1990 Accession	X		no	47,46	3,3	X	X	X	no	0,461	
Guyana	1977 Accessioon		X	Yes	12,73	1,2		X		no	0,67	

Haiti	Non-Party			X		no	18,86	1,5		X			NA	0,503
Holy-See (Vatican)	Non-Party				X (religious)	no	?	?					?	?
Honduras	Accession	1985	X			no	11,79	1,9	X	X	X		no	0,623
Hungary	Accession	1985		X		? No FAO profile				X				0,845
Iceland	**Accession**	**2000**			**X (foreign affairs)**	**Yes**	**NA**	**4,5**	**X**	**X**	**X**		**no**	**0,938**
India	**Ratification**	**1976**		**X**		**Yes**	**14,6**	**1,47**	**X**	**X**	**X**		**no**	**0,647**
Indonesia	**Accession**	**1979**		**X**		**Yes**	**12.81**	**3**	**X**				**Yes**	**0,707**

Iran	**Ratificatii on**	**1976**	**X**	**X**	**X**	**X (foreign affairs)**	**no**	**9,5**	**0,5**	**X**	**X**	**X**	**no**	**0,797**
Iraq	Accession	2014		X			Yes	2	NA		X		Yes	0,689
Ireland	Ratification	2002		X			Yes	0,92	negligible		X		Yes	0,942
Israel	Ratification	1980		X			Yes	1,14	negligible		X		Yes	0,908
Italy	Ratification	1979	X				no	1,94	negligible	X			Yes	0,883
Jamaica	Accession	1997		X			Yes	6,6	0,29		X		Yes	0,726
Japan	**Acceptance**	**1980**	**X**		**X**	**X (Economy, Trade, Industry)**	**no**	**1,5**	**NA**	**X**	**X**	**X**	**no**	**0,915**

Jordan	Accession	1979	X	X	X		no	5,63	negligible		X			Yes	0,723
Kazakhstan	Accession	2000	X	X	X		no	4,4	negligible	X	X	X		no	0,817
Kenya	Ratification	1979		X			Yes	27,3	0,8		X			Yes	0,579
Kiribati	Non-Party		X	X	X		no	30,79	8,6	X	X	X		no	0.623
Kuwait	Ratification	2002	X	X	X		no	0,44	negligible	X				Yes	0,808
Kyrgyztan	Accession	2007		X			no	11,65	negligible		X			No	0,674
Laos	Accession	2004	X				? No FAO profile				X			?	0,604

Latvia	Accession	1997		X			Yes	4,5	1,15		X	Yes	0,854
Lebanon	Accession	2013			X		? No FAO profile				NONE		0,73
Lesotho	Ratification	2003		X			? No FAO profile				X		0,518
Liberia	Accession	1981	X	X	X		no	37,28	4,5	X		no	0,465
Libya	Accession	2003		X			no	1,85	0,2		X	Yes	0,708
Liechtenstein	Accession	1980				X (food safety)	? No FAO profile				X		0,917
Lithuania	Accession	2002		X			Yes	2,91	NA		X	Yes	0,869

Luxembourg	1984 Ratification	X	X	X	? No FAO profile				X					0,909
Madagascar	1975 Ratification		X		Yes	29,1	2	X	X	X		no		0,521
Malawi	1982 Accession		X		Yes	26.1	4		X			no		0,495
Malaysia	**1978 Accession**	**X**	**X**	**X**	**no**	**6,8**	**1.73**	**X**	**X**	**X**		**no**		**0,804**
Maldives	2013 Accession		X		Yes	NA	6	X	X	X		no		0,719
Mali	1994 Accession		X		Yes	38,7	4	X				no		0,427
Malta	1989 Accession		X		Yes	0,88	0,1		X			Yes		0,885

Marshall Islands	Non-Party			X		no	15,23	14		X		no	0,698
Mauritania	**Accession**	**1998**		**X**		**Yes**	**25,92**	**6**		**X**		**Yes**	**0,527**
Mauritius	Ratification	1975	X			Yes	2,78	1,6	X			Yes	0,796
Mexico	**Accession**	**1991**		**X**		**Yes**	**3,39**	**0,8**		**X**		**Yes**	**0,767**
Micronesia	Non-Party		X			Yes	22,51	10	X			Yes	0,614
Monaco	Accession	1978			X (Relations extérieures)	? No FAO profile				X		Yes	NA
Mongolia	Accession	1993		X		? No FAO profile				X		no	0,735

Montenegro	2006 Succession		X		? No FAO profile	10	NA	X	x	X	no	0,816
Morocco	**1976 Ratification**		**X**		**No**	**12,26**	**2,5**	**X**	**X**	**X**	**no**	**0,676**
Mozambique	Accession	1981	X		Yes	24,52	4		X		Yes	0,446
Myanmar	**Accession**	**1997**	**X**		**Yes**	**9,6**	**3,5**	**X**	**X**	**X**	**no**	**0,584**
Namibia	Accession	1991	X		Yes	7,19	3,6	X			?? (we don't know the composition off the scientific committee)	0,645
Nauru	Non-Party	NONE				NA	2,9	NONE				NA
Nepal	Accession	1975	X		Yes	25,29	0,25		X		Yes	0,579

Netherlands	Ratification	1984	X	X			Yes	1,63	NA	X				Yes	0,933
New Zealand	Accession	1989			X		Yes	6,57	1		X			Yes	0,921
Nicaragua	Accession	1977	X				Yes	15,46	NA		X			Yes	0,651
Niger	Ratification	1975	X				no	39,2	1,6	X				no	0,377
Nigeria	Ratification	1975			X		Yes	21,2	0,5	X	X	X		no	0,534
Niue	Non-Party		X				no	NA	4,3	X				no	NA
North Macedonia	accession	2000			X		Yes	12,2	NA	X	X			no	0,759

Norway	**1976 Ratification**		**X**		**Yes**	**1,88**	**0,9**	**X**				**Yes**	**0,954**
Oman	Accession	2008		X	Yes	2,21	1		X			Yes	0,834
Pakistan	Accession	1976		X	Yes	22,85	1,3		X			Yes	0,56
Palau	Accession	2004	X		no	3,18	2,2	X	X	X		no	0,814
Panama	Ratification	1978		X	no	2,18	0,6		X			Yes	0,795
Papua New Guinea	Accession	1976		X	Yes	17,65	1,7	X	X	X		no	0,543
Paraguay	Ratification	1977		X	no	10,44	NA		X			no	0,724

Peru	**1975 Ratification**	**X**	**X**	**X**		**no**	**6,89**	**0,7**		**X**			**Yes**	**0,759**
Philippines	**1981 Ratification**	**X**	**X**	**X**		**no**	**9,28**	**1,8**	**X**	**X**	**X**		**no**	**0,712**
Poland	1990 Ratification		X			? No FAO profile				X			?	0,872
Portugal	1981 Ratification		X			Yes	2,05	0,24		X			Yes	0,85
Qatar	2001 Accession		X			Yes	0,18	negligible		X			Yes	0,848
Republic of Korea	**1993 Accession**		**X**			**Yes**	**1,98**	**0,2**	**X**	**X**	**X**		**no**	**0,906**
Republic of Moldova	2001 Accession		X			no	10,08	0,03		X			no	0,711

Romania	Accession	1994		X			Yes	1,2	NA	X	X	X	Yes	0,816
Russian Federation	**Continuation**	**1992**	**X**	**X**	**X**		**no**	**3,15**	**0,3**	**X**	**X**	**X**	**no**	**0,824**
Rwanda	Accession	1981				X (dvpt/tourism)	Yes	29,04	0,33		X		Yes	0,536
Saint Kitts and Nevis	Accession	1994			X		no	1,15	0,5	X			no	0,777
Sint Lucia	Accession	1983	X	X	X		no	2,13	0,8	X	X	X	no	0,745
Saint Vincent and Grenadin	Accession	1989			X		no	7,24	0,37	X			no	0,728
Samoa	Accession	2005				X (foreign affairs)	Yes	9,8	3,5	X			no	0,707

San Marino	Acceptance	2005	X		? No FAO profile	negligible	negligible		X		??	NA
Sao Tome and Principe	Accession	2001		X	Yes	11,35	4		X		Yes	0,609
Saudi Arabia	Accession	1996		X	Yes	2,22	NA	X			We don't know the composition of the scientific committee	0,857
Senegal	Accession	1977		X	Yes	16,56	3,2	X			We don't know the composition of the scientific committee	0,514
Serbia	Continuation	2006		X	? No FAO profile				X		??	0,799
Seychelles	Accession	1977		X	no (environment in charge of fisheries)	2,03	1,3			X	Yes	0,801
Sierra Leone	Accession	1995			X	Yes	58,93	9,1		X		Yes	0,438

Singapore	Accession	1987	X	? No FAO profile				X			Yes	0,935
Slovakia	Succession	1993	X	Yes	2,36	NA		X			Yes	0,857
Slovenia	Accession	2000	X	? No FAO profile				X			Yes	0,902
Solomon islands	Accession	2007	X	Yes	35,03	2,5	X	X	X		No	0,557
Somalia	Accession	1986	X	? No FAO profile				X			Yes	NA
South Africa	Ratification	1975	X	Yes	1	negligible	X				We don't know the composition of the scientific committee	0,705
South Sudan	Non-Party		X	? No FAO profile				X			??	0,413

Spain	**Accession**	**1986**		**X (economy)**	**Yes**	**2,3**	**0,2**		**X**	**Yes**	**0,893**
Sri Lanka	Accession	1979	X		Yes	7,87	NA	X	X	no	0,78
Sudan	Ratification	1983		X (tourism and wildlife)	Yes	31,47	NA		X	Yes	0,507
Suriname	Accession	1981	X		Yes	9	2,2		X	no	0,724
Sweden	Ratification	1975		X	no	1,38	0,2	X	X	X	no	0,937
Switzerland	Ratification	1975		X (food safety)	? No FAO profile				X	??	0,946
Syria	Accession	2003	X		Yes	19,54	7		X	Yes	0,549

Tajikistan	Accession	2016		X		? No FAO profile				X		??	0,656
Thailand	**Ratification**	**1983**	**X**	**X**	**X**	**no**	**11,6**	**1,2**	**X**	**X**	**X**	**no**	**0,765**
Timor-Leste	Non-Party			X		Yes	32,2	1,3	X	X	X	Yes	0,626
Togo	Ratification	1979		X		Yes	23,42	0,9		X		Yes	0,513
Tonga	Accession	2016	X	X	X	no	17,21	2,3	X	X	X	no	0,717
Trinidada and Tobago	Accession	1984	X			no	1,03	0,06		X		no	0,799
Tunisia	Ratification	1975			X	no	10,37	NA		X		Yes	0,739

Turkey	Accession	1996		X	X	X		no	5,83	0,4	X				no	0,806
Turkmenistan	Non-Party		NONE						NA	NA	NONE					0,71
Turks and Caicos islands	Non-Party					X		? No FAO profile						X	no	NA
Tuvalu	Non-Party		NONE						16,51	5	NONE					NA
Uganda	Accession	1991					X (tourism)	no	24,21	NA	X	X	X		no	0,528
Ukraine	Accession	2000		X	X	X		no	10.14	negligible	X	X	X		no	0,75
United Arab Emirates	Accesion	1990			X			Yes	0,74	negligible	X				no	0,866

U.K	1986 Ratification	X			?? Bordel	0,63	negligible		X			Yes	0,92
United republic of Tanzania	1980 Ratification		X		? No FAO profile	NA	2,9		X			Yes	0,528
USA	**1975 Ratification**	**X**			**no**	**0,92**	**negligible**	**X**				**no**	**0,92**
Uruguay	1975 Ratification		X		Yes	11	0,3		X			Yes	0,808
Uzbekistan	1977 Accession		X		Yes	NA	0,1	X				YEs	0,71
Vanuatu	1989 Accession		X		Yes	25.84	0.7			X		No	0,597
Venezuela	1978 Ratification		X		Yes	5,03	NA	X				Yes	0,726

Vietnam	**Accession**	**1994**	**X**	**no**	**14,68**	**4**	**X**	**X**	**X**	**no**	**0,693**
Yemen	Accession	1997	X	? No FAO profile				X		??	0,463
Zambia	Accession	1981	X	Yes	18,6	0,4		X		YEs	0,591
Zimbabwe	Accession	1981	X	no	12,08	NA		X		Yes	0,563

ANNEXE 2: experts' interviews' summary table

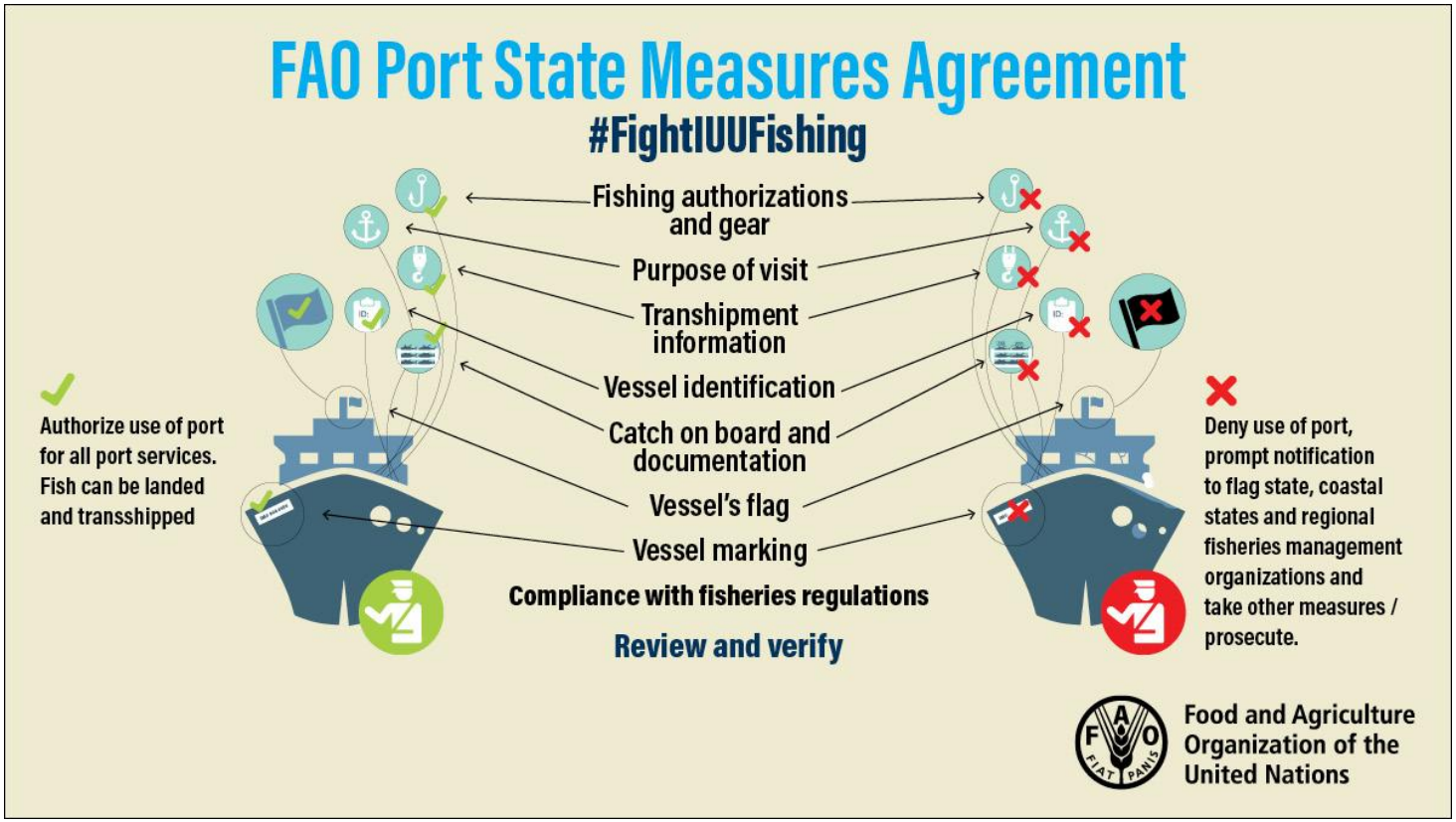
Questions		Fisheries' stakeholders' most frequent answers/perceptions expressed		Biodiversity Conservation stakeholders' most frequent answers/perceptions expressed	
		If they operate at local scale	**If they operate at larger scale**	**If they operate at local scale**	**If they operate at larger scale**
About CITES	Awareness	Depends on where the interviewee works/if he has to manage CITES listed species or not	Confusing with other international conservation conventions	A powerful legal conservation tool	Very on focus/important
	Decisions	Purely dictated by biodiversity conservation political agenda. Can only have positive outcomes if more efforts are put into implementing them	Known to be not following the science, hence losing credibility (discredit process). Of little importance unless it affects targeted species	Should be more result-focused. Can only have positive outcomes if more efforts are put into implementing them	The only legally binding convention pushing countries to take needed conservation commitments. Listings are battles to win and must be increased. Worth investing time, money, experts to influence.
	Implementation	Another administrative constraint Needs more attention	Anecdotal	Needs strengthening	Will follow listing decisions since CITES is legally-binding

About their own role within CITES framework and provisions	Decision-making process	They should be involved in the original risk assessments and the listing proposal process	Depend on countries political decisions/consensus	Can only push local authorities through efficient collaboration	Can only push governments toward biodiversity conservation decisions
	Implementations	They are the managers of marine resources - they should be involved by CITES authorities when management measures are taken. Excluding them means ensuring non-compliance	To this day: they would only comply if forced to.	Very important responsibility in raising awareness, helping with concrete implementation measures, co-building solutions with all the parties involved	Only a handful of biodiversity conservation NGOs are focusing on it
About fisheries stakeholders under-representation in the decision-making processes	In biodiversity conservation arenas in general	Too busy Underfunded Understaffed Sometimes not invited to the meetings	Too busy Little interest Bad past experiences (social learning) Anticipated marginalisation (conflict by anticipation)	Too busy Sometimes not interested	They are protected by governments (social learning) They are corrupted (social learning and discredit process) Biodiversity conservation is not their priority
	In CITES in particular	Very little contact/communication with the CITES authorities	Not worth attending (financially)	Underfunded	They would keep anything good (listings) from happening (conflict by anticipation)

<table>
<tr><td rowspan="2">About conservation stakeholders under-representation at fisheries management meetings?</td><td rowspan="2">It depends on the territory, history and relations between people on the ground</td><td>Bad past experiences but sometimes they are present
Strong perception there would be systematic opposition (conflict by anticipation)
They know very little about fisheries management hence are irrelevant in most discussions (discredit process)</td><td rowspan="2">They are not under-represented, they try to go to all the meetings and be part of every discussion</td><td>Little interest
Not a communication priority
Strong perception they would not be welcomed (conflict by anticipation)</td></tr>
<tr><td colspan="2">A focus on the efficiency of measures, less on political display decisions</td></tr>
<tr><td rowspan="3">What would make CITES and fisheries collaboration more efficient?</td><td rowspan="2">A greater help from the States to conduct the NDF studies, conduct the controls and increase compliance
A better recognition of the fisheries communities' knowledge and efforts towards sustainability</td><td>Stronger human and financial resources given by member States to RFBs to be able to hander ever-growing conservation responsibilities (monitoring, observers' programs, fighting IUU fishing and corruption, provisions to sanction non-compliance etc.)
A stronger mandate given by member states to RFBs in order to better implement conservation measures</td><td>Greater funding towards local scale actions and projects helping governments, authorities and communities in implementing CITES provision</td><td>If there was less corruption with RFBs driving them towards economic gains at the price of biodiversity loss.</td></tr>
<tr><td colspan="3"></td><td></td></tr>
<tr><td>What could be the common goal?</td><td colspan="4">Healthy and productive oceans</td></tr>
</table>

What could be common "enemies" the two "sides" could fight together?	Deter IUU fishing Eliminate corruption in ocean governance systems

ANNEXE 3: Illustration of optimal operation/implementation of PSMAs



IFS certificates could be one of the "Catch on board and documentation". This systematic declaration would allow accurate collection of data on CITES-listed species harvested from international waters (ABNJ), better stock assessments' quality, better inform catch limitation measures or international trade bans.

l'institut Agro agriculture • alimentation • environnement	Diplôme : SML-Biologie Spécialité : Sciences halieutiques et aquacoles Spécialisation / option : Gestion des Pêches et des Ecosystèmes Côtiers et Continentaux Enseignant référent : Didier Gascuel

Auteur(s) : Audrey Chevalier Date de naissance* : 20 mai 1994	Organisme d'accueil : Food and Agriculture Organisation of the United Nations (FAO) Adresse : Viale delle Terme di Caracalla 00153 Roma - Italia Maître de stage : Kim Friedman
Nb pages : 35 Annexe(s) : 3	
Année de soutenance : 2020	

Titre français : Réaliser les objectifs de la Convention de Washington pour les espèces marines : analyse situationnelle et identification d'opportunités d'améliorations

Titre anglais :Achieving CITES (Convention on International Trade in Endangered Species of wild Fauna and Flora) mandate for marine species : situation analysis adn identification of opportunities for improvement.

Résumé (1600 caractères maximum) :

A travers une étude documentaire et une analyse critique de la littérature scientifique et des documents officiels de la CITES ainsi que des entretiens auprès d'un échantillon de 30 experts, cette étude a permis d'identifier les freins empêchant actuellement cette Convention d'atteindre ses objectifs pour les espèces marines. Une analyse est ensuite menée afin de comprendre les mécanismes et constructions sociales qui fondent et entretiennent ces freins.

Il a été identifié que l'amélioration de la situation actuelle ne serait possible que si les communautés de conservation de la biodiversité et de gestion des pêches qui sont impliquées dans le cadre de la CITES trouvent des moyens de déconstruire les préjugés qu'ils ont les uns envers les autres, se concentrer sur la santé des écosystèmes marins et apprennent à reconnaitre la légitimité les uns des autres afin de construire des prises de décisions et de mesures concertées et constructives.

A partir de ces conclusions, des recommandations et des suggestions pratiques et multi-échelles sont données espérant nspirer de positives initiatives.

Abstract (1600 caractères maximum) :

Through a literature review, analysis and commentary of both scientific literature and CITES' official documents as well as interviews of relevant experts, this study identified challenges currently preventing the delivery of the Convention's mandate in ensuring international trade in selected marine species does not threaten their survival in the wild. The study then investigates mechanisms and social constructs contributing to these hindrances.

In this thesis, progress in overcoming hurdles was thought possible if the social and institutional divide between biodivesity conservation and fisheries management communities of practice involved in CITES framework find ways to recognise each other's legitimacy, work on deconstructing the prejudices they have against each-other, while focusing on broader common objectives of social-environmental systems and learn to build constructive and collaborative decision-making processes and implementation measures.

Based on these findings, practical and layered recommendations and suggestions are given to hopefully inspire positive innitiatves.

Mots-clés : conservation de la biodiversité – gestion des pêches – CITES – coopération interdisciplinaire

Key Words: Biodiversity conservation – fisheries management – CITES - cross-sectoral cooperation

* *Elément qui permet d'enregistrer les notices auteurs dans le catalogue des bibliothèques universitaires*