

出國報告（出國類別：其他）

參加亞洲區域華盛頓公約組織
(CITES)新列鯊魚和蝠魞屬履約能力
評估研討會報告

服務機關：行政院農業委員會漁業署

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派赴國家：大陸(廈門)

出國期間：103年5月12日至5月15日

報告日期：103年8月6日

摘要

- 一、本次研討會係於本（103）年 5 月 12 日至 15 日在廈門舉行，由聯合國糧農組織(FAO)和華盛頓公約組織(CITES)聯合籌辦，並由陸方瀕危物種進出口管理辦公室及漁業局共同承辦，該研討會針對新列入 CITES 附錄二之鯊魚及鬼蝠魛屬等物種，討論執行上需求，並檢視亞洲各國就履行前揭 CITES 附錄二相關物種施行執行能力及相關需求。
- 二、本次研討會參與國有日本、香港、韓國、新加坡、泰國、斯里蘭卡、巴基斯坦、印尼及印度尼西亞等 13 國、歐盟、南太平洋委員會(SPC)及東南亞漁業發展中心 (SEAFDEC) 參與，我國由職以南方黑鮪保育委員會(CCSBT)名義與會。
- 三、本案大多數國家對新列鯊魚及鬼蝠魛屬物種都共同面臨鯊魚資料蒐集不足、魚翅辨識不易及履行無危害風險評估(NDF)不易等問題，且多數對該等物種並未制定相關規範，並將遵循 CITES 相關規定核發證明文件。
- 四、本研討會總結，該次總結建議須優先實行：
 - (一) 改進資料蒐集：透過辦理訓練課程及研討會、派遣觀察員或填報 Logbook 及製作鯊魚或魛辨識指南等方式，改進資料蒐集。
 - (二) 強化國際法規、執法及國際間合作：針對進行貿易之加工產品建立追溯系統、專屬貨品號列及對高風險貨櫃進行檢查等。
 - (三) 加強養護管理措施：加強漁民及貿易者或管理者間協調、發展安全釋放意外捕獲活體之技術或指南及發展生態旅遊及管理計畫等。
 - (四) 能力訓練：對海關及供給鏈所有相關者進行訓練及提供相關指南等。
 - (五) 獲取補助基金：設立基金協助開發中國家建構能力等。

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壹、目的

去(102)年 CITES 第 16 屆締約方大會(COP16)通過將污斑白眼鯊、鼠鯊、紅肉 Y 髻鯊、Y 髻鯊、八鰭 Y 髻鯊及鬼蝠魟屬物種列入 CITES 附錄二名單。

本次會議目的為瞭解亞洲相關國家針對 CITES COP16 列入附錄二之鯊魚及鬼蝠魟屬物種進出口管制之履約能力，考量自本年 9 月 14 日該公約生效後，我國將有面臨如何管理新列鯊魚物種及鬼蝠魟之挑戰，爰我國派員以 CCSBT 身分參加，俾憑瞭解亞洲其他國家針對新列鯊魚物種及鬼蝠魟屬進出因應作法，作為我國後續執法上之參考。

貳、過程

本次「亞洲區域 CITES 新列鯊魚和蝠魟屬履約能力評估研討會」訂於本(103)年 5 月 12 日至 15 日在廈門舉行，由 CITES 秘書處和 FAO 聯合主辦，陸方瀕危物種進出口管理辦公室（簡稱瀕管辦）及漁業局共同承辦，本次會議共有日本、韓國、新加坡、巴基斯坦、馬來西亞、印度、香港、印度尼西亞、泰國、斯里蘭卡、伊朗、馬爾地夫、葉門、歐盟、SPC 等及我國參加，我國由職以 CCSBT 名義與會。職於 5 月 12 日(星期一)下午抵達會場報到，報到時與瀕管辦周志華副主任談及 CITES 新列鯊魚和蝠魟屬各國如何履約之問題，渠表示該等物種列入附錄後恐會影響其他鯊魚物種貿易進行，因海關無法辨識該等物種，因此造成所有鯊魚物種進出口時的疑慮，將減緩貿易流程之速度，職詢問針對該等物種陸方將如何因應，渠表示可能朝兩方向處理(1)漁民捕獲後直接丟海裡(2)採用 DNA 方式來鑑定物種。

- 一、會議開幕式由瀕管辦孟憲林常務副主任，先致歡迎詞歡迎大家蒞臨廈門參加該次會議，隨即由 CITES 秘書長 John Scanlon、農業部漁業漁政管理局局長趙興武及 FAO fischer 女士等人致詞。CITES S 秘書長強調本次列入 CITES 附錄二物種之貿易管理推動需仰賴 CITES 行政機關及漁業管理單位間合作，農業部趙局長表示，大陸自 1980 年加入 CITES 後，不斷推動瀕危動植物相關之管理及執法措施，並建立林業、農業及海關等相關單位之合作機制。
- 二、本次會議主席為 Toorajvali Nassab pouri(伊朗籍)，渠先請所有與會人員簡短致詞，接著由 CITES 秘書處 Haruko Okusu 報告新列入 5 種鯊魚及鬼蝠魟屬推

動須有制定相關法規(legality)、透過科學性評估(NDF)確保貿易不會影響其他物種(Sustainability)及透過核發CITES許可文件建立追溯性(Traceability)等原則，之後由FAO接續報告推動CITES附錄二與漁業永續管理之關聯性及介紹各亞洲沿岸國對該等物種捕獲、貿易情形與所面臨問題及建議採取因應措施。各國開幕詞內容要點：

三、各國針對新列鯊魚和蝠魞屬履約能力簡報內容：

(一) 中國：首先介紹該國鯊魚產量，該國遠洋漁業鯊魚產量每年約10,000到15,000公噸，尤其在南中國每年約捕撈5,000-7,500噸佔全部漁獲量50%，接著說明鯊魚加工廠分布、利用及流向概況，此外也介紹該國鯊魚貿易狀況，並提及目前該國並無針對特定鯊魚物種訂定貨品號列，因此在統計上是有困難。另目前面臨漁船船數多、鯊魚物種繁多漁民對物種辨識不易，並對無危害分析(Non Detriment Findings；NDF)之科學證據不瞭解等問題，並建議CITES能有經費及技術上支援，提供相關參考資料。會後職詢問農業部漁業漁政管理局資源環保處(按:管轄列入CITES附錄之水生野生動植物相關事務)郭睿處長，針對該等物種列入附錄後大陸如何因應，渠表示目前並無訂定相關管理規定，且鯊魚主要是混獲魚種，大陸不太會投入太多經費在管理鯊魚上，主要關注在主要利用物種例如黃魚等，且依據國內CITES法規規範，倘大陸漁船捕獲CITES附錄二物種貿易時須出具相關證明，未來該等鯊魚開始實施後，漁民恐會因申請過程複雜而選擇丟棄。

(二) 香港：每年貨品進口量約5,500-10,000噸，再出口量約2,400-5,500噸，其中80%是鯊魚翅，該國統計自2010-2013年進口及再出口至香港之國家魚翅貿易量，我國皆位居第三位(進口：596.71噸(9.91%)；出口：158.01噸(6.04%))。至於針對新列鯊魚及鬼蝠魞部分，該等物種鯊魚翅約佔香港總貿易量之10-15%，該國將依CITES相關規定制定法規規範，並與海關建立檢查機制，另提出目前面臨問題例如該等物種之魚翅在市面名稱並非物種名而是以金山鉤翅等別名呈現、鯊魚翅種類很多樣、加工後之魚翅失去色澤難鑑定等問題，未來將建立魚翅鑑定機制並訓練相關人員，必要時採用DNA技術。會後職與漁農自然護理署瀕危物種保

護黃金欣主任談及該等物種未來魚翅貿易辨識上之困難，渠認同確實有同樣疑問，另渠告知PEW針對5種鯊魚出魚翅鑑定手冊，職表示有看過該手冊，但實務上是否可行仍須驗證，渠告知下星期PEW將赴香港協助該局訓練海關及相關人員魚翅辨識課程，職請渠將訓練後之結果提供我國參考。

- (三) 印度尼西亞：鯊魚主要是鮪延繩釣漁業混獲，新列5種鯊魚物種，鼠鯊並無漁獲，主要捕獲Y髻鮫類鯊魚(按:佔年總漁獲量14%)，並說明鯊魚利用情形及貿易狀況及該國制定鯊魚養護管理相關法規，並製作鯊魚及魴類物種辨識指南。
- (四) 巴基斯坦：鯊魚肉主要國內消費，魚翅則出口至菲律賓、泰國及我國等國家，目前該國對該等物種貿易及生物學等相關資料之收集缺乏，也面臨執法機關鑑定能力不足及政府內部間合作不足等問題，建議提升部門間使用分子技術等現代化之檢驗技術及建立區域間資訊分享機制等方式解決。另今(103)年4月17日該國亦有針對該等物種舉辦相關會議討論，並決定未來將加強港口資料之蒐集。並於今年6月亦將召開研討會，可能會考慮公告出口魚翅及相關產製品之禁令。
- (五) 泰國：先介紹該國鯊魚產量、捕撈物種組成及利用，並提及鯊魚及魴主要是混獲且漁獲量非常稀少佔總漁獲量不到0.5%，針對新列5種鯊魚物種除紅肉Y髻鮫有紀錄外，並無漁獲其他鯊魚物種，且鬼蝠魴亦無捕獲紀錄。會後職詢問該國漁業部代表Tassapon krajangdara主任針對紅肉Y髻鮫之貿易是否有近一步管理，渠表示該物種多為馬來西亞等國家進口，該國主要國內消費並無出口，目前並無制定相關規定。
- (六) 新加坡：該國表示該國漁船及該國籍之漁船並無捕獲該等物種，該等物種主要在該國進口及再出口，進出口或轉口若為CITES附錄管制物種都須檢附CITES相關證明文件才能進出口或轉口，目前該國針對象鮫、大白鯊、鯨鯊及鼠鯊與紅肉Y髻鮫已訂有專屬號列，Agri-Food and Veterinary Authority (按: CITES及野生動物政策的專責單位)已能利用DNA成功鑑定出CITES附錄物種包括大白鯊、鯨鯊及象鮫，針對本次新列新物種尚未建立鑑種機制，但已從紐約實驗室取得樣本，目前正在

進行資料庫建立，並提及鯊魚進行貿易都非完整身體多為加工過產品，且海關等相關人員亦不易區分該等物種與其他物種差異及DNA檢驗技術並非每國家能運作等問題，建議CITES網站可以公告已申請核發出口證之名單，俾憑核對，建立出口、原產地及運送轉口國等標籤制度，或提供針對該等鯊魚辨識之訓練課程或相關資料。會後職詢及新加坡Agri-Food&Veterinary Authority of Singapore(簡稱AVA)Teh kihun，目前送驗DNA鑑定出物種需花費的時間，渠表示目前是隨機採樣方式，並盡可能在不影響貿易進出口時間內提具檢驗報告。

- (七) 斯里蘭卡：該國鯊魚主要以生鮮或乾製方式國內消費，出口主要以魚翅(按:以Silky shark, oceanic white-tip shark and blue shark為主)及魚皮為主，近年魚翅出口產量減少，目前面臨魚翅鑒種之困難、管理鯊魚及魷基金不足、漁民缺乏鯊魚養護管理措施之困難。
- (八) 馬來西亞：該國沒有鯊魚漁業，鯊魚是混獲物種佔該國海洋物種卸魚量不到1%，其中八鰭Y髻鯨及紅肉Y髻鯨主要國內消費。另資料蒐集上並無分類到物種僅鯊魚及魷，並提及漁業部每年以魚類分類學及生物學等內容辦理訓練課程，未來將規劃針對該等物種之鑒種及魚翅等內容訓練相關人員，目前面臨鯊魚資源評估不足、相似物種鯊魚及相關產製品鑒別困難及管理機構與執行機構網路合作上不佳等問題，建議海關及漁業機關等單位應參加訓練課程並與進口國建立合作機制。
- (九) 馬爾地夫：鯊魚主要延繩釣混獲，自2010年公告禁捕鯊魚禁令，並禁止鰭及魷出口，但鯊魚並無禁止貿易，針對新列入附錄二鯊魚物種及鬼蝠魷未制定相關規範，目前刻正研擬相關貿易法規，目前面臨再出口鯊魚無法辨識，缺乏漁業觀察員機制及缺乏海關與海上執法警察合作等問題。
- (十) 葉門：沿岸發展中國家多數以食乾鯊魚肉為主，鯊魚生產量約72%是為國內消費，其餘出口至其他國家，對於鯊魚個別物種資料缺乏，對鯊魚並無制定相關法規，大部分法規都是針對海洋資源保護，該等鯊魚及鬼蝠魷屬列入附錄後，該國CITES管理機構已開始與國際愛護動物基金會(IFAW)辦理進口檢查及鯊魚等相關內容之訓練研討會。

(十一) 韓國：鯊魚屬混獲物種，部分地區有食用鯊魚及鰻習慣，貿易上僅區分鯊魚及魷，鯊魚並無訂定專屬號列，該國海域並無漁獲新列5種鯊魚及鬼蝠魷屬等物種，且該國亦遵循RFMOs相關規定例如規範漁船禁捕污斑白眼鯊，有面臨國內核發同意文件程序複雜，鯊魚科學數據收集不足等問題，未來必需加強物種鑑定、科學資料蒐集及與RFMOs或其他國家建立合作關係。會後職與國家漁業及發展研究機構Park Kyum Joon研究員交談中，渠告知該國鯊魚科學資料蒐集不足，將面臨CITES要求締約國執行物種NDF分析之挑戰。

(十二) 日本：該國Kesen-numa City卸魚量高達總鯊魚捕獲量90%，並持續蒐集卸魚量等相關資料，新列5種鯊魚及鬼蝠魷屬中，污斑白眼鯊已禁捕，Y髻鯊量很稀少(按:近3年約不到10公噸)，鼠鯊在前幾年捕獲量約25-40公噸，2012年突然遽增100公噸(按:資料僅呈現至2012年)，並面臨鯊魚物種種類繁多、魚翅鑑定不易等問題，並提及DNA鑑定鯊魚物種技術並非適用所有產製品。此外，分享該國對水生物種所作NDF情形，並希望NDF指南可作為其他國家之參考。會外職詢及水產廳生態保全室Takato Maki副主任，鼠鯊及Y髻鯊列入附錄二後未來貿易該國如何管理，渠表示並無相關管理，Y髻類主要捕自沿近海，多為國內消費，遠洋漁船捕獲量非常稀少，出口幾乎沒有，至於鼠鯊部分是有出口，未來將套用該國建構 NDF指南，確保該物種輸出不會影響該族群。

四、本研討會總結，該次總結建議須優先實行:

(一) 改進資料蒐集：包括針對鯊魚和魷之生物學、分類學及系群評估等資料建立更多訓練課程及研討會；區域性組織履行系群評估；透過觀察員或Logbook支持資料蒐集；透過研究或漁業監控改善知識；善用現有材料製作鯊魚或魷辨識指南；建構市場及貿易評估機制及發展區域性組織資料分享機制等。

(二) 強化國際法規、執法及國際間合作：對進行貿易者之加工產品建立追溯系統(例如標籤或CDS證明文件)；國際貿易時建立鯊魚和魷辨識手冊或技術；建立專屬貨品號列；針對高風險貨櫃進行檢查及在相關部門

間設立固定協商等。

- (三) 加強養護管理措施：加強漁民及貿易者或管理者間協調、發展安全釋放意外捕獲活體之技術或指南；發展生態旅遊及管理計畫之推動等。
- (四) 能力訓練：對海關及供給鍊所有相關者進行訓練及提供相關指南等。
- (五) 獲取補助基金：設立基金提升接受國之能力建構及邀請CITES秘書處或FAO確認捐助者撥款之可用性等。

五、最後陸方瀕管辦周志華副主任致詞，感謝所有與會參加者及FAO、CITES秘書處協助，本次會議順利圓滿完成。

叁、心得與建議

- 一、本次會議瞭解亞洲相關國家針對新列 CITES 附錄鯊魚及鬼蝠魮屬物種之管里情形，該等國家其該等物種捕獲量都很少，並都共同面臨鯊魚資料蒐集不足、魚翅辨識不易及履行 NDF 不易等問題，且多數對該等物種並未制定相關規範，並將遵循 CITES 相關規定核發證明文件。
- 二、經檢討我國針對新列 CITES 附錄鯊魚及鬼蝠魮屬物種於去年 12 月 16 日預告「污斑白眼鮫、紅肉 Y 髻鮫、八鰭 Y 髻鮫與鼠鯊五種鯊魚及鬼蝠魮屬物種禁止輸出」草案，確實面臨物種及相關產製品辨識不易之問題，爰仍建議回歸 CITES 相關規定，即進口該等物種及其產製品時應檢附出口國核發 CITES 輸出許可，出口時應檢附本署核可之相關文件，據以向國貿局申請核發 CITES 輸出許可證辦理出口方式管理。
- 三、另本次會議除蒐集各國新列 CITES 附錄鯊魚物種及鬼蝠魮屬之產業概況及相關管理等資料外，亦此結識相關國家與會代表包括新加坡、香港、泰國、韓國等國，未來可俾憑作為聯繫窗口。

**Xiamen Declaration
&
Action Plan for the Implementation of CITES Requirements
in Relation to Sharks and Manta Rays**

Xiamen, China, from 13 to 15 of May 2014



**Main outputs of the FAO/CITES Regional Consultative Workshop on
Capacity Assessments for the Implementation of New CITES listing of
Sharks and Manta Rays**



XIAMEN DECLARATION

We, the representatives of fisheries and CITES authorities from China, Hong Kong (China), Macao (China), India, Indonesia, Iran, Japan (as an observer), Republic of Korea, Malaysia, Maldives, Pakistan, Singapore, Sri Lanka, Thailand and Yemen at the FAO/CITES “Asian Regional Consultative Workshop on Capacity Assessments for the Implementation of new CITES Listing of Sharks and Manta Rays” (Xiamen, Fujian Province, P. R. China, from 13 to 15 of May 2014), reviewed and discussed the implementation of the new CITES listing for sharks and manta rays¹ agreed at the 16th meeting of the Conference of the Parties to CITES to be effective from 14th September 2014.

Having in mind the importance of conservation and sustainable use of sharks and rays and after scrutinizing the limitations, challenges and needs of the countries in the region, we recommend the following priority actions to effectively implement the new listing of sharks and manta rays in CITES Appendix II:

- IMPROVEMENT OF DATA COLLECTION
- STRENGTHENING NATIONAL LEGISLATION, ENFORCEMENT (MONITORING, CONTROL AND SURVEILLANCE) AND INTERNATIONAL COOPERATION
- STRENGTHENING CONSERVATION AND MANAGEMENT MEASURES
- ENHANCING TRAINING AND CAPACITY BUILDING/HUMAN RESOURCE DEVELOPMENT
- SECURING FUNDING

We encourage all countries to closely collaborate with Regional Fisheries Bodies and fully use existing regional wildlife enforcement networks in relation to CITES-listed marine species, to enhance sharing of information and expertise with regard to the management and sustainable utilization of shark and ray species.

We appeal to our governments and donors to support the efforts by Asian countries to improve measures for implementing CITES regulations for sharks and manta rays, and for the conservation and sustainable utilization of sharks and rays.

We thank the European Union and China for funding the workshop, China for hosting the workshop, and FAO and the CITES Secretariat for their support in the organization of the event.

Xiamen, Fujian Province, P. R. China, 15 May 2014

¹ Oceanic whitetip (*Carcharhinus longimanus*), scalloped hammerhead (*Sphyrna lewini*), great hammerhead shark (*Sphyrna mokarran*), smooth hammerhead shark (*Sphyrna zygaena*), the porbeagle shark (*Lamna nasus*) and the genus *Manta* spp, the entry into force of the inclusion in Appendix II of which is 14 September 2014.

Regional action plan for the implementation of the recent listings of sharks and manta rays under CITES Appendix II for Asia

Notes:

1. The term “shark” is taken to include all species of sharks, skates, rays and chimeras (Class Chondrichthyes)
2. At the end of each activity the following abbreviations are used to indicate the time frame for implementation:
 ST = Short Term (1 to 2 years)
 MT = Medium Term (3 to 5 years)
 LT = Long Term (over 5 years)

ACTION 1: IMPROVEMENT OF DATA COLLECTION		
Issues	Challenges	Activities to address identified needs
1. Scientific information to support assessment and management of shark and ray fisheries	<ul style="list-style-type: none"> • Lack of fisheries data (catch, discards, effort) in particular in areas with high species diversity, small-scale fisheries and limited human capacity • Lack of spatio-temporal data. 	<ul style="list-style-type: none"> • Conduct more training courses and workshops on biology, taxonomy, ecology and stock assessment of sharks and rays (ST) • Support the data collection through logbook and/or observer programs and others as feasible (ST) • Encourage the use of local knowledge (ST) • Record all landing data of CITES listed species at species level (ST/MT) • Carry out stock assessments at regional levels (MT)
	<ul style="list-style-type: none"> • Lack of biological information, stock structure, nursery grounds and habitats of sharks and rays 	<ul style="list-style-type: none"> • Improve knowledge of sharks and rays through research and fisheries monitoring (ST) • Collect biological information on sharks (ST) • Develop field guides for sharks and rays, using pre-existing material (ST) • Encourage the use of local knowledge (ST) • Support data collection through fishery independent surveys (MT) • Collect information on survival rates of released fish (MT)
	<ul style="list-style-type: none"> • Lack of socio-economic information on fishers and traders of sharks and rays 	<ul style="list-style-type: none"> • Collect basic socio-economic information on relevant shark fisheries and trade (ST) • Conduct comprehensive socio-economic assessments and analysis of shark and ray fisheries and trade (MT)
	<ul style="list-style-type: none"> • Lack of data and information on utilization, marketing and trade of sharks and rays 	<ul style="list-style-type: none"> • Define the supply chains of the different products and derivatives of sharks and rays in trade (ST) • Conduct marketing and trade assessments (MT)
	<ul style="list-style-type: none"> • Lack of adequate shark fisheries management (as a basis for NDFs) 	<ul style="list-style-type: none"> • Enhance training and capacity building (ST) • Provide sufficient funding (ST)
2. Lack of collaboration on research and data sharing on migratory or straddling sharks and rays species	<ul style="list-style-type: none"> • Limited research on shared shark and ray resources 	<ul style="list-style-type: none"> • Compile a list of existing regional data, information and experts on sharks and rays (ST) • Develop regional data sharing mechanisms (MT) • Carry out regional joint shark research and assessments (MT/LT)

ACTION 2: STRENGTHENING NATIONAL LEGISLATION, ENFORCEMENT (MONITORING, CONTROL AND SURVEILLANCE) AND INTERNATIONAL COOPERATION

Issues	Challenges	Activities to address identified needs
<p>1. Limited knowledge and expertise for the identification of sharks products in international trade</p>	<ul style="list-style-type: none"> • Large variety of processed and semi-processed products in trade (e.g. meat, fins, cartilage, oil, skin, gill rakers, belt, wallet, etc.) • Merchandise often contains a mix of parts from different shark species especially dried fins • Derivatives are often unrecognizable, especially those for medicinal and cosmetic/ health care use. • Lack of mechanisms to verify the origin of products in trade (e.g. curios taken abroad by tourists) • Lack of species-specific tariff codes for CITES listed species 	<ul style="list-style-type: none"> • Produce user friendly (simple/low-cost/fast) and reliable identification tools for CITES-listed shark species and their products to enable timely procedures by customs and enforcement officers (ST) • Encourage traders to not mix shark species in their merchandise, or to list all included shark species on the label of the merchandise, if appropriate. (ST/MT) • Establish traceability systems (e.g. labeling, CDS, certificates) for processed products at the origin/exporting/processing countries as well as registration/license systems for traders etc. (MT/LT) • Implement regional/global species-specific tariff codes and support the FAO proposal to WCO for new shark species-specific tariff codes . (MT/LT)
<p>2. Insufficient enforcement capacity at ports of entry/exit</p>	<ul style="list-style-type: none"> • High volume of export, re-export and import • Lack of adequate and trained enforcement staff 	<ul style="list-style-type: none"> • Increase number of enforcement staff (ST/MT) • Use risk analysis to select high-risk shipments for inspection (MT) • Require a certificate of origin for shark product shipments (MT/LT)
<p>3. Insufficient international collaboration among enforcement officers in export, import and re-export countries</p>	<ul style="list-style-type: none"> • International exchange of information and data is not harmonized (forms, content, units, etc.) • Language barriers 	<ul style="list-style-type: none"> • Promote the use of existing regional wildlife enforcement network in relation to CITES-listed marine species (ST) • Establish regional platform or network for information exchange (MT)
<p>4. Lack of coordinated inter-agency networking</p>	<ul style="list-style-type: none"> • Fishery agencies often have a low awareness of the importance of CITES • No direct linkage between fisheries and CITES enforcement agencies 	<ul style="list-style-type: none"> • Set up a regular consultation mechanism among relevant agencies (ST/MT) • Ensure that the fisheries authority plays its full role in CITES implementation (MT)
<p>5. Strengthen legislation</p>	<ul style="list-style-type: none"> • Legislation procedures are time-consuming in some countries 	<ul style="list-style-type: none"> • Update legislation in a timely manner after the adoption of new CITES listings and resolutions (MT) • Encourage countries to be more proactive and to use foresight by adopting shark management measures ahead of a legislation revision (MT) • Encourage countries to develop NPOA-Sharks which also address CITES-listed species (MT/LT)

ACTION 3: STRENGTHENING CONSERVATION AND MANAGEMENT MEASURES

Issues	Challenges	Activities to address identified needs
1. Lack of programmes for awareness raising	<ul style="list-style-type: none"> • Lack of consultation with stakeholders • Remoteness of fishing (target) communities • Insufficient knowledge on shark and ray fishers • Insufficient knowledge by fishers of existing shark management measures 	<ul style="list-style-type: none"> • Consult with various categories of stakeholders (fishers, traders, managers, policy makers, etc) (ST) • Develop and implement comprehensive awareness programs (ST/MT) • Strengthen regional co-operation amongst stakeholders (MT) • Improve media advertisements to raise awareness of shark fishery issues (MT)
2. Addressing demand and supply of CITES listed species	<ul style="list-style-type: none"> • Declining economic returns in some countries • Lack of suitable alternatives to shark products for domestic consumers 	<ul style="list-style-type: none"> • Develop consumer awareness raising campaigns (ST) • Develop alternative livelihood options for fishers such as ecotourism. (MT/LT)
3. Technical difficulties in applying fisheries management measures to the CITES listed species	<ul style="list-style-type: none"> • Difficulties in live release of non-target species • Difficulties in controlling and reducing overfishing and fishing capacity • Difficulties in reducing the bycatch of sharks and rays • Lack of enforcement of management measures • Lack of implementation of management plans 	<ul style="list-style-type: none"> • Develop guidelines and techniques for the safe release of live specimens incidentally caught (ST) • Develop appropriate species-specific gears and/or bycatch -reduction-devices (BRDs) to reduce bycatch of sharks and rays listed in CITES appendices (MT) • Develop and implement shark management plans (MT)
4. Lack of effective regional shark management measures	<ul style="list-style-type: none"> • Lack of appropriate legislation 	<ul style="list-style-type: none"> • Develop effective regional management measures for CITES listed elasmobranchs (ST/MT) • Develop regional management plans for elasmobranchs (MT)

ACTION 4: ENHANCING TRAINING AND CAPACITY BUILDING/HUMAN RESOURCE DEVELOPMENT

Issues	Challenges	Activities to address identified needs
1. Lack of capacity in the species identification of shark and ray products	<ul style="list-style-type: none"> • Many products and derivatives from different species cannot be readily differentiated (look-alike species or some highly processed products) • Lack of officers with taxonomic competence for the identification of fresh and processed sharks 	<ul style="list-style-type: none"> • Provide user friendly guides for non-experts (ST/MT) • Train customs officials and all other actors in the supply chain in the use of shark identification tools (MT)

ACTION 5 : SECURING FUNDING

Issues	Challenge	Activities to address identified needs
1. Insufficient prolonged and targeted funding for the implementation of CITES requirements	<ul style="list-style-type: none"> • Funding for shark research and CITES implementation is very limited • Securing adequate financial and human resources to support the implementation of CITES listings 	<ul style="list-style-type: none"> • Invite recipient countries to prioritize CITES implementation in their request for capacity building assistance to donors (ST) • Share information on funding sources (ST) • Invite the CITES Secretariat and FAO to identify funding availability from international and other donors (ST) • Advise relevant national and regional agencies of the high value of sharks and rays products (ST/MT) • Enhance the capacity of recipient countries on fund raising for capacity building assistance (MT). • Encourage developed countries to fulfill their commitment regarding the Official Development Assistance (MT) • Encourage countries to incorporate the conservation and management of sharks and rays into their socioeconomic development plans (MT)



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