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Draft Regional Plan of Action for the Conservation and Management of Sharks, Rays and Chimaeras in the WECAFC Area

CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

(WILL BE COMPLETED AFTER THE FINALISATION OF THE DOCUMENT)

1 INTRODUCTION

1.1 The Western Central Atlantic Fishery Commission

The Western Central Atlantic Fishery Commission (WECAFC) is a regional fisheries organization established under the auspices of FAO in 1973. Its objective is to promote the effective conservation, management and development of the living marine resources of the area of competence of the Commission[1] (Figure 1), in accordance with the FAO Code of Conduct for Responsible Fisheries, and addresses common problems of fisheries management and development faced by members of the Commission.

The Commission has a management advisory function, but no binding authority. It includes 34 members: Antigua and Barbuda, Bahamas, Barbados, Belize, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, France, European Union, Grenada, Guatemala, Guinea, Guyana, Haiti, Honduras, Jamaica, Japan, Korea (Rep. of), Mexico, Netherlands, Nicaragua, Panama, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Spain, Suriname, Trinidad and Tobago, United Kingdom, United States, and Venezuela.

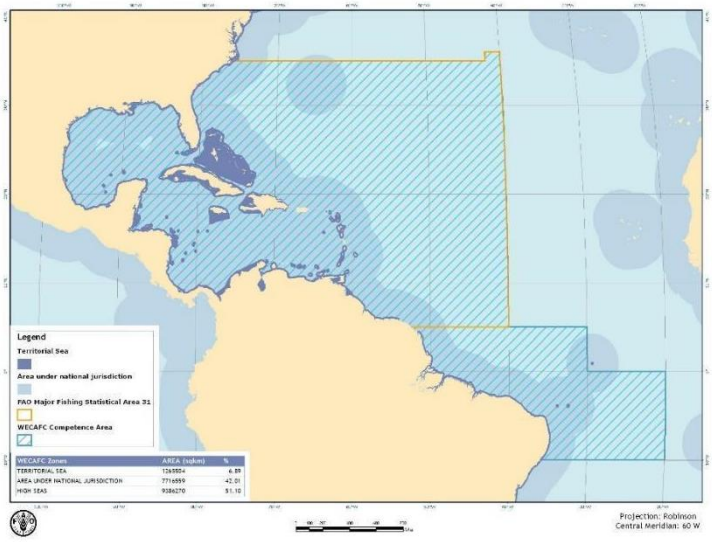

Figure 1. WECAFC geographic area and boundaries

1.2 The process leading to the adoption of a Regional Plan of Action for sharks[2]

The joint WECAFC/CITES/OSPESCA/CRFM/CFMC Working Group on Shark Conservation and Management was established by the 15th session of WECAFC held in Port of Spain, Trinidad and Tobago, on 26–28 March 2014 at the specific request of WECAFC's members. The adopted program of work of the Commission included an activity on "Improved management and conservation of sharks", which supported the development of at least two national plans and a regional plan of action for the management and conservation of sharks.

In 2016, the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce awarded a grant to WECAFC to undertake the regional assessment of sharks and rays and develop a Regional Plan Of Action for the Conservation and Management of sharks (RPOA-sharks) in the Caribbean. A regional assessment of shark and ray fisheries and related management

[1] Throughout this document, "Commission" refers to WECAFC

[2] For the purpose of the RPOA, the term « shark » includes all species of sharks, skates, rays and chimaeras (Class *Chondrichthyes*), and the term "shark catch" is taken to include directed, bycatch, commercial, recreational and other forms of taking sharks, in line with the FAO International Plan of Action for the conservation and management of sharks.

and conservation was carried out in the period July – October 2017, and a draft RPOA-Sharks was prepared by regional experts for discussion at the first meeting of the Working Group held in October 2017 in Barbados.

In 2019, the Western Central Atlantic Fishery Commission adopted the recommendation WECAFC/XVII/2019/5+6+7 "on the conservation and management of sharks and rays in the WECAFC Area" (WECAFC, 2019).

The first recommendation adopted is that "WECAFC MEMBERS develop their NPOA-sharks in line with the IPOA-sharks, in support of more effective conservation and management of sharks and rays in general".

The WECAFC members also endorsed the Interim Data Collection and Reference Framework (DCRF), together with the regional data access and sharing policies, and the list of main species for data collection in the WECAFC area. At the second meeting of the joint WECAFC/CITES/OSPESCA/CRFM/CFMC Working Group on Shark Conservation and Management, convened virtually from 20–22 October 2021, the WECAFC members agreed to establish a task force responsible for the WECAFC RPOA-Sharks.

The RPOA was reviewed by Scientific Advisory Group (SAG) in 2022 (tbc) and finally adopted at the

[Nth] Plenary meeting of WECAFC.

2 FAO'S INTERNATIONAL PLAN OF ACTION FOR THE CONSERVATION AND MANAGEMENT OF SHARKS

The International Plan of Action for the Conservation and Management of Sharks (IPOA-sharks)[3] was developed in response to concerns over expanding fisheries for sharks and the potential negative impacts on shark populations. FAO organized on request of its members an expert consultation to develop guidelines leading to a Plan of Action and a Technical Working Group on the Conservation and Management of Sharks, which was held in Tokyo during 23-27 April, 1998. The IPOA-sharks was adopted by the member nations of the Committee on Fisheries (COFI) of FAO in February 1999 and endorsed by the FAO Council in Rome in June 1999.

The underlying objective of the IPOA-sharks is to ensure the conservation and management of sharks and their long-term sustainable use. It applies to all species of chondrichthyan fishes and all types of catches, whether directed, by-catch, commercial or recreational, as well as to coastal States where sharks are caught and flag States where vessels entitled to fly their flags catch sharks on the high seas. The IPOA-sharks is voluntary and FAO encourages nations to adopt it and to develop their own National Plan of Action for the Conservation and Management of Sharks (NPOA-sharks).

The IPOA-Sharks proposes a structure and contents for the NPOA-sharks (including the description of the current state of shark stocks and fisheries as well as a framework, objectives and strategies for the management of sharks), stresses the use of the precautionary approach for the management of shark fisheries, and suggests that a Shark Assessment Report (SAR) is prepared concurrently with the development of the NPOA-sharks[4]. Moreover, the IPOA-sharks, recognizing that many sharks are highly migratory and part of transboundary stocks, calls for the preparation of Regional

[3] *International Plan of Action for reducing incidental catch of seabirds in longline fisheries. International Plan of Action for the conservation and management of sharks. International Plan of Action for the management of fishing capacity*. Rome, Italy 1999 26 pp. (also available at www.fao.org/3/a-x3170e.pdf).

[4] Technical Guidelines for Responsible Fisheries – Fisheries Management – 1. Conservation and Management of Sharks, FAO, Rome, Italy 2000 (also available at https://www.fao.org/documents/card/en/c/2942a07e-3fa8-55a7-ae89-21dca39494e8/).

Plans of Action for the Conservation and Management of Sharks (RPOA-sharks) whenever this seems appropriate[5].

In the last decade, FAO has received reports of shark catches from 166 countries, areas and territories, of which 125 have adopted a NPOA (45) and/or a RPOA (113). From 2010 to 2019, 15 of the 22 top shark-fishing countries, areas and territories adopted a NPOA-sharks. To date there are eight RPOA-sharks adopted and two in progress.

The RPOAs more relevant for the WECAFC Area are: the "Plan de Acción Regional Para La Ordenación y Conservación de los Tiburones en Centroamérica (Par-Tiburon) signed by Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama, adopted in 2011 and under revision; and the European Union's Action Plan for the Conservation and Management of Sharks, adopted in 2009.

Out of the 34 members of WECAFC, 17 (50%) have adopted a POA-sharks, of which 14 (including EU territories) are present in the WECAFC Area; in addition, in two countries the shark plan is in progress. The WECAFC Members with POAs are: Antigua and Barbuda; Belize (High Sea); Boliv Rep of Venezuela; Brazil; Colombia; Costa Rica; Cuba; European Union; Guatemala; Guinea; Honduras (in progress); Japan; Mexico; Nicaragua; Panama; Republic of Korea; Trinidad and Tobago (in progress); United Kingdom; United States of America (Table 1).

[5] Database of measures on conservation and management of sharks and POAs. In: Food and Agriculture Organization of the United Nation [online]. Rome. Database version 1-2022 [Cited 10 January 2022] www.fao.org/ipoa-sharks/database-of-measures/en& https://www.fao.org/ipoa-sharks/national-and-regional-plans-of-action/en/

Table 1. Status of the national and regional POAs relevant for the Caribbean region

WECAFC Member	NPOA status	Year	RPOA	Year	Link
Antigua and Barbuda	Adopted	2017			https://www.fao.org/3/bt660e/bt660e.pdf
Bahamas					
Barbados					
Belize	Adopted (High Seas)	2015	OSPESCA/PAR-Tiburon	2011	https://www.fao.org/3/be841e/be841e.pdf; https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Boliv Rep of Venezuela	Adopted	2013			https://www.fao.org/3/br385s/br385s.pdf
Brazil	Adopted/Revised	2014			https://www.icmbio.gov.br/portal/faunabrasileira/plano-de-acao-nacional-lista/2839-plano-de-acao-nacional-para-a-conservacao-dos-tubaroes
Colombia	Adopted	2010			https://www.fao.org/3/br383s/br383s.pdf
Costa Rica	Adopted	2010	OSPESCA/PAR-Tiburon	2011	https://www.fao.org/3/br380s/br380s.pdf; https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Cuba	Adopted	2015			https://acoel.org/wp-content/uploads/National-Plan-of-Action-Sharks.pdf
Dominica					
Dominican Republic					
European Union[6]			EU-POA	2009	https://www.fao.org/3/bl360e/bl360e.pdf
France[7]			EU-POA	2009	https://www.fao.org/3/bl360e/bl360e.pdf
Grenada					
Guatemala	Adopted	2008	OSPESCA/PAR-Tiburon	2011	https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Guinea	Adopted	2006	CSRP[8]/PAN-Requins	2003	https://www.fao.org/3/CA3069FR/ca3069fr.pdf; https://www.fao.org/3/ca8114fr/ca8114fr.pdf

[6] French Guiana, FR-Guadeloupe, FR-Martinique, and FR-Saint-Martin

[7] On behalf of Saint Barthelemy (French overseas territory not part of the EU)

[8] The Sub-Regional Fisheries Commission (CSRP/SRFC) is an inter-governmental fisheries cooperation organization established by the Convention of 29 March 1985, amended on 14 July 1993. It has seven member States: Cabo Verde, The Gambia, Guinea, Guinea-Bissau, Mauritania, Senegal and Sierra Leone.

WECAFC Member	NPOA status	Year	RPOA	Year	Link
Guyana					
Haiti					
Honduras	In progress	2005	OSPESCA/PAR-Tiburon	2011	https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Jamaica					
Japan	Adopted/Revised	2016			https://www.fao.org/3/bt662e/bt662e.pdf
Mexico	Adopted/Under revision	2004			https://www.fao.org/3/bl940s/bl940s.pdf
Netherlands[9]			EU-POA	2009	https://www.fao.org/3/bl360e/bl360e.pdf
Nicaragua	Adopted	2006	OSPESCA/PAR-Tiburon	2011	https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Panama	Adopted	2018	OSPESCA/PAR-Tiburon	2011	https://www.sica.int/busqueda/busqueda_archivo.aspx?Archivo=odoc_67533_1_10042012.pdf
Republic of Korea	Adopted	2011			https://www.fao.org/3/CA3027EN/ca3027en.pdf
Saint Kitts and Nevis					
Saint Lucia					
Saint Vincent/Grenadines					
Spain			EU-POA	2009	https://www.fao.org/3/bl360e/bl360e.pdf
Suriname					
Trinidad and Tobago	In progress	2021			
United Kingdom	Adopted/Revised	2011			https://webarchive.nationalarchives.gov.uk/ukgwa/20130505040140/http://archive.defra.gov.uk/environment/marine/documents/interim2/shark-conservation-plan.pdf
United States of America	Adopted/Revised	2001			https://www.fao.org/3/br377e/br377e.pdf
WECAFC Members in the WECAFC Area: 14 POA Adopted, 2 revised, 2 in progress					
WECAFC Members: 17 POA adopted, 4 revised, 2 in progress					

[9] On behalf of Aruba, Bonaire, Curação, Saba, Sint Eustatius, Sint Maarten (Netherlands overseas territories not part of the EU)

3 INTERNATIONAL, REGIONAL, SUBREGIONAL INSTRUMENTS RELEVANT FOR THE CONSERVATION AND MANAGEMENT OF SHARKS IN THE WECAFC REGION

A number of global and regional treaties and agreements are involved in the conservation and/or management of sharks. The most relevant in the WECAFC region are:

Global

1. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
2. Convention on the Conservation of Migratory Species of Wild Animals (CMS)
3. CMS Memorandum of Understanding on the Conservation of Migratory Sharks (MOU Sharks)

Regional or subregional

1. International Commission for the Conservation of Atlantic Tunas (ICCAT)
2. Western Central Atlantic Fisheries Commission (WECAFC)
3. Organización del Sector Pesquero y Acuícola del Istmo Centroamericano (OSPESCA)
4. Protocol concerning Specially Protected Areas and Wildlife (SPAW Protocol)

A detailed overview of conservation and/or management tools adopted by binding international instruments can be found in Annex 1.

At the last meeting of the Commission in 2019, the Recommendation WECAFC/XVII/2019/5+6+7 "on the conservation and management of sharks and rays in the WECAFC area" was adopted. This non-binding recommendation aims at promoting the conservation and management of sharks in the area of competence of WECAFC. Among other recommendations, the Commission recommended that WECAFC members develop NPOAs consistent with the IPOA for the Conservation and Management of Sharks.

The Commission also recommended that WECAFC members prohibit retention, transshipment, landing and trading of sharks and rays consistent with measures adopted by ICCAT and other relevant international instruments, as appropriate, and that sharks are landed with their fins naturally attached through the point of first landing. WECAFC members are also strongly encouraged to provide their estimates of landings and discards of sharks and other data to WECAFC and ICCAT to support stock assessments. Where possible, WECAFC members are encouraged to conduct research on key biological, ecological, economic and trade parameters, life history and behavioural traits, migration patterns, as well as on the identification of potential mating, pupping and nursery grounds of the most common shark species in the WECAFC area.

4 ROLE AND OBJECTIVES OF THE RPOA SHARKS

The overall objective of this RPOA is to ensure the conservation and management of sharks and their long-term sustainable use in the WECAFC area. The purpose of the RPOA is to encourage sustainability of shark fisheries in the region, to ensure the long-term provision of the economic, social and environmental benefits that productive and sustainable shark resources provide people [coastal communities] and the environment.

Objective 1. Improving understanding of the status of shark populations in the WECAFC geographic area of competence through research, monitoring and data collection.

Understanding the status of shark populations in the WECAFC area, identifying potential risks for these populations and defining appropriate conservation and management actions, as well as

assessing their effectiveness requires a significant investment in data collection, science, research and mining of available empirical knowledge. Given the diversity of species, stocks and fisheries concerned, adequate mapping of scientific needs and planning of the scientific work required to address them are of utmost importance for ensuring the optimal use of available resources.

Insights into the biology, ecology, population structure and dynamics, and estimation of key life cycle parameters of sharks (i.e., age, growth, natural mortality and reproductive parameters) are fundamental inputs into various assessment methods. Therefore, activities dedicated to harmonised data collection and support of research activities improving scientific knowledge on sharks are essential for enabling robust shark stock assessments.

Other key areas of research include investigating migration timing and routes of migratory species, in view to defining which shared shark stocks can better guide a collaborative and harmonized approach to management, and identifying the pupping and nursery grounds of relevant species. An important additional area of research is related to the reduction of bycatch through the development and evaluation of appropriate mitigation methods, as well as, adequate handling and safe release guidelines.

Well-designed fishery-independent monitoring data and associated abundance indices are an important metric for assessing the conservation status of shark species. Such indices are one of the key data inputs to many stock assessment models and to fisheries managers. Fishery-independent abundance indices could be built either through traditional survey methods (e.g., longline or visual surveys) or modern survey methods (e.g., baited remote underwater video surveys; BRUVs networks.

It is also important to consider alternative data-limited methods to estimate the conservation status of data-poor stocks. Ecological Risk Assessment (ERA)/Productivity-Susceptibility Analysis (PSA) and demographic modelling are examples of methods that can be used to prioritize species that require more attention and perhaps more precautionary management measures in relation to other species.

Accurate and detailed information about catch and effort is another of the key data inputs for stock assessment models. Therefore, it is imperative to obtain reliable estimates of the catch and effort exerted by all fisheries contributing to shark fishing mortality whether directed or as bycatch. Estimates of total catch should include landings, dead discards, and live releases and should be provided at the species level whenever possible. This implies that proper training and tools (e.g., identification guides) must be provided to those (e.g., fishermen, observers, inspectors) involved in data collection. Existing species identification guides and training tools should be shared in order to minimize costs and maximize the effectiveness of data collection activities.

Because this information is vital not only for stock assessments but also for understanding the scale and scope of shark fisheries in the region, data collection programs should include specifically sharks harvested across the region. Providing associated needs for facilities, equipment, staff, and training for data collection purposes should also be a priority.

Objective 2. Ensuring that targeted and non-targeted fisheries are sustainable and that sharks species/stocks with poor conservation status or protected status have appropriate conservation measures in place

Several global and regional organisations have already adopted a range of binding provisions covering a range of shark species that occur and are caught in the WECAFC region. Implementation and enforcement of relevant applicable international obligations is essential for ensuring WECAFC Members' contributions to regional and global efforts for fostering shark conservation and sustainable management.

Science-based fishing restrictions, including catch limits, are crucial to ensure long-term sustainability of fish populations and associated fisheries. Applying the precautionary approach in the face of uncertainty is especially important in the case of vulnerable sharks. Such actions are urgently needed to safeguard sharks in the WECAFC region from overfishing.

Fisheries conservation and management measures could include catch limits, closed seasons or areas, minimum landing sizes, and, where appropriate, retention bans.

Additional measures that could be considered for minimizing incidental mortality of protected, overfished, and/or non-targeted sharks include appropriate sizes and shapes of hooks, bans on wire traces, mesh size restrictions and safe release requirements.

As a matter of priority, countries should ensure domestic implementation of management measures consistent with their international obligations under the fisheries and environmental agreements, as outlined in Annex 1.

Full utilization of sharks is necessary for improving the income of fishers, avoiding waste, and making fisheries more economically efficient, while supporting food security. Full utilization could augment opportunities for further employment in the form of processing (e.g., skin processing, liver oil production, manufacturing of souvenirs, and the production of fish meal from offal). International and national measures already applied throughout the WECAFC region include the principle of full utilization of sharks as a means for banning the wasteful practice of ~~on~~ shark finning (removing the fins and discarding the carcass at sea).

Robust monitoring, control and surveillance (MCS) systems, compliance monitoring schemes and adequate enforcement, including through the application of appropriate and deterrent sanctions/penalties for infringements, and traceability systems to monitor the flows of shark~~s~~ products are essential for the effectiveness of any conservation and management measures. Therefore, adequate and efficient MCS and enforcement must be available and also cover fisheries that catch sharks. MCS and enforcement systems to be effective need to be properly staffed, trained, equipped, supervised and financed, so that they can efficiently do their important job.

An institutional legal framework is obviously a prerequisite for MCS and enforcement personnel to be able to do their duties effectively. This might imply the modification or development of laws and regulations to back up all management measures with the appropriate MCS and enforcement tools and procedures, empower staff to carry them out-while ensuring their security and safety.

Objective 3. Foster regional cooperation and improved governance for the conservation and management of sharks in the WECAFC region

To avoid duplication and optimise the use of the available resources, the effort towards the conservation and management of sharks would benefit from better coordination between the different actors in the region. Hence, improving collaboration and coordination between WECAFC Members and relevant global, regional and sub-regional organisations, would be key for ensuring the sustainability of shark populations across the region and fostering governance for the conservation and management of sharks in the WECAFC region.

Sharing, as appropriate, social and economic statistics information on the targeted and non-targeted fisheries, as well as, available biological and ecological data on shark among all the relevant regional and sub-regional organisations having a mandate for the conservation and/or management of shark is a pre-requisite to ensure the sustainability of shark populations. Those regional and sub-regional organisations have in place different data collection tools, such as the interim WECAFC Data Collection Reference Framework, or the ICCAT data collection scheme, therefore, stepping up data collection efforts at the national level and entering also shark related data into the relevant regional databases would greatly strengthen regional cooperation for shark~~s~~ conservation and management. In line with the first objective of this RPOA to use common minimum standards for data collection and a common methodological framework, a collective and coordinated harmonisation of data

collection protocols and information exchange systems should be pursued between WECAFC Members and these organisations.

In addition to a better data and information flow, collaboration and coordination on key activities, such as MCS, traceability of shark products, research projects and capacity building/trainings within and between the regional and sub-regional organisations can provide a multiplying effect in terms of outputs and impacts. This collaboration would also contribute in reducing respective costs for each organisation, increase transparency and opportunities, create beneficial synergies between different actors and improve the efficiency of the fight against IUU fishing in the region.

In order to evaluate the adequacy and effectiveness of the RPOA-sharks and take stock of any new developments and knowledge relevant to the various aspects covered by the RPOA, a regular review and update of the RPOA-sharks should be sought. Progress achieved during the implementation of the RPOA-sharks should be evaluated on a regular basis. To that end, the WECAFC Sharks WG should develop Terms of Reference and indicators for undertaking such reviews. The WECAFC WG Sharks and the SAG, as appropriate, should also be involved in the monitoring of progress towards the implementation of the RPOA.

Objective 4. Promote communication and increased public and stakeholder awareness about shark management and conservation

Periodic dissemination of information on research and management outcomes and public education about shark population status are integral to a successful conservation strategy. A participatory process that takes into account the opinions of stakeholders (fishers, traders, academia and NGOs) while informing them about progress and constraints can foster support for shark conservation. Such involvement is also in line with the Ecosystem Approach to Fisheries (EAF) that is widely applied and promoted in the WECAFC area.

Public support for regional shark conservation can be increased by raising public awareness about the status of shark populations and their importance in marine ecosystems. Such educational efforts can be undertaken through school curricula at all levels of education, conferences, and exhibits at museums and aquaria.

Improved coordination and collaboration with other regional organizations with interests in fishery management and environmental conservation, such as ICCAT and the United Nations Environment Programme, Caribbean Environment Programme (UNEP-CEP) is needed to foster efficiency through associated partnerships and synergies.

Objective 5. Capacity building and financing mobilization for the effective implementation of the RPOA sharks

There is an urgent need to train fishers, fisheries inspectors and observers, stakeholder partners, supervisors, researchers and fishery managers in issues related to the conservation and management of sharks in the WECAFC region. These issues include species identification, fisheries statistics and stock assessments to name a few.

For instance, training in shark species identification could contribute to improved data gathering of fisheries' catches by species. Such capacity building activity could be achieved through the organization of workshops led by specialists in shark identification in parallel with the widespread distribution of identification guides such as the one recently prepared by FAO for the region.

In addition to species identification, training in statistically-sound catch and effort data collection needs to be organized. A census of all catch and effort in a fishery is an extremely costly and nearly impossible task to achieve, especially for small-scale fisheries which are widely dispersed and land

their catches in many locations. Thus, adequate data collection programs may require the acquisition of information through systematic sampling and analysis. Training in the design and application of such data collection and analysis programs is a capacity building priority for the region. Through the FDS Working Group, training and other technical support for data collection and reporting will be provided to WECAFC members, which should assist these efforts.

Scientists in the region need to be trained in modern stock assessment methodologies, the evaluation of the impacts of ecosystem changes, and preparation of peer-reviewed publications that validate the science supporting management decisions. This training should include methods that can provide preliminary management alternatives in data-poor situations (see Research section, above) as well as classic stock assessment methods, and, like all training mentioned above, should be a permanent and on-going activity.

Institutional capacity building arrangements are needed at the local, sub-national, national, sub-regional and regional levels to support long-term, conservation and sustainable use of shark resources. These include policy, legal, and institutional frameworks, arrangements and recurrent activities designed to ensure the goals of the RPOA-sharks will be achieved.

These capacity building activities should be integrated with socio-economic studies on shark fisheries, within larger fisheries management and climate change adaptation programmes. Projects focused on data collection and best practices in other fisheries can provide additional opportunities.

Many of the actions identified in this RPOA-sharks for the WECAFC area necessitate that national governments and regional organizations (CRFM, OSPESCA, UNEP-CEP, CFMC, UNESCO) increase their investment in shark management and conservation. Improvements in research, monitoring, control, surveillance and enforcement require increases in trained staff, equipment, and operational budgets. Financing is needed also to provide the continuous capacity building that is necessary in all areas identified above.

Governments, regional and international bodies, as well as NGOs, should all contribute to the implementation of the RPOA, elevate the priority of its recommended actions, and wherever possible increase their financial investment in shark conservation and management. Without such change this RPOA as well as the NPOAs of WECAFC Members will most probably not achieve its stated objectives and most importantly will not drive any real improvements in sharks populations and fisheries.

5 ACTIONS TABLE

Final Task Force draft of the Actions' Table of the WECAFC RPOA Sharks (7 March 2022)

Objectives	Needs	Actions	**Timeframe for implementation** S: "Short-term (1-3 years) " M: "Medium-Term (3-5 years)" L: "Long-Term (5-10 years)" O: "Ongoing"	**Actors** (other than WECAFC Members)
1. Improving understanding of the status of shark[10] populations in the WECAFC geographic area of competence through research, monitoring and data collection.	**1.1.** Essential data for assessing population status and/or risks of relevant species.	**1.1.1.** Collection of scientific and empirical information on relevant species' biology and ecology, including life history characteristics, behaviour, feeding, identification.	S/M	Public and private research institutions, NGOs, Universities
		1.1.2. Collection of scientific and empirical information on population dynamics, distribution, spatial-temporal and/or migratory patterns of relevant species. Delineation of pupping and	M	Public and private research institutions, NGOs, Universities

[10] For the purpose of this RPOA, « sharks » encompasses all fishes of the class Chondrichthyes (sharks, skates, rays and chimaeras).

		nursery areas and critical habitats, etc.		
	1.2. Accurate and reliable species-specific time-series data and statistics on sharks from commercial and recreational fisheries, including total shark catches (landings and live and dead discards at sea) and effort for all fisheries (directed or by-catch) on a species-specific basis across the region.	**1.2.1.** Implementation of long-term fisheries data collection, verification and monitoring programs to collect commercial and recreational fisheries data, including total catches and effort, age/length compositions etc. at species level.	O/S	Governamental fisheries agency. Public and private research institutions, Universities.
		1.2.2. Ensure a scientifically appropriate level of observer coverage onboard fishing vessels to collect species-specific biological information and fisheries information for relevant targeted and/or incidentally caught sharks.	O/M	
	1.3. Availability of appropriate methodologies for assessing the conservation status of relevant shark-stocks.	**1.4.1.** Development and/or implementation of existing standardised methodologies, such as abundance indices, quantitative or semi-quantitative stock assessments, or other appropriate approaches (e.g., data-poor methods, genetic methods etc.).	M	

	1.4. Social, economic, trade and cultural information and data.	**1.4.1.** Collection of available trade data and market chain information for shark products at lowest possible taxonomic level, ideally species level.	M	
		1.4.2. Implementation of appropriate labelling and custom coding for priority/relevant shark~~s~~ species and products thereof.	M/L	
		1.4.3 Collection of information about social and cultural practices related to sharks.	S/M	
2. Ensuring that shark catches are sustainable and that sharks species/stocks with poor or protected conservation status have appropriate conservation measures in place	**2.1.** Fishing mortality is maintained at sustainable levels that prevent overexploitation and allow recovery of sharks with poor conservation status.	**2.1.1.** Reduction of shark by-catch in non-target fisheries and limiting directed catch and effort in target fisheries to sustainable levels.	S/M	
		2.1.2. For relevant shark stocks, development of conservation and management reference points that could serve as a basis for deriving stock status and evaluating the achievement of management objectives.	M/L	
		2.1.3. Design, implementation and monitoring for compliance with appropriate, science-based conservation and management measures	O	

		2.1.4. Implementation of the precautionary approach in the absence of adequate scientific information, where appropriate.	S	
		2.1.5. Design and promotion of safe handling and release guidelines for shark species, appropriate.	M	
	2.2. Exploration and, as applicable, implementation of methods to improve traceability in the trade flows of sharks and products thereof.	**2.2.1** Exploration of regional fisheries sustainability initiatives (e.g. certification, FIPs, etc.).	L	
	2.3. Implementation and compliance with applicable measures adopted under national and international legislation, as appropriate, such as, UNCLOS, UNFSA, ICCAT, CITES, etc.	**2.3.1** Development of national laws and policies in line with FAO Code of Conduct for Responsible Fisheries	S/M	
		2.3.2. Binding international obligations (primarily under Multilateral Environmental Agreements and Regional Fisheries Management Organisations) are codified into national law and regulations.	S/M	
		2.3.3. Full utilization is promoted and by-catch of sharks is reduced in other fisheries.	S/M/L	

		2.4.6. Development of Non-Detriment Findings for the exports of CITES-listed shark products.	S/M	
	2.4. Adequate monitoring and enforcement of shark conservation and management measures.	**2.4.1.** Implementation of effective monitoring, control and surveillance (MCS) systems (properly staffed, trained, equipped, financed and supervised), including observers, VMS, electronic monitoring, etc. that specifically include monitoring of shark catch and bycatch.	S/M/L	
		2.4.2 Establishment/ improvement of institutional and legal frameworks for the implementation of shark conservation and management measures, implementation of the RPOA, regulation of surveillance and enforcement activities, empowerment of staff to carry them out, and protect their physical integrity.	S	
		2.4.3. Combat IUU fishing activities	O	
3. Foster regional cooperation and improved governance for the conservation and management of sharks in the WECAFC region	**3.1.** Strengthened capacity of subregional and regional organisations dealing with the conservation and management of sharks to coordinate their activities, avoid duplication of efforts and optimise the use of	**3.1.1.** Regional systematic sharing of information and data, including through the WECAFC Data Collection Reference Framework, with sub/regional organisations with a mandate for the conservation and/or	S	

	available resources, to ensure that target and non-target shark fisheries in the region are sustainably managed, based on species' full range and all sources of mortality, by using all of the available biological, ecological, social, or economic information from each stock and fishery.	management of sharks, in line with confidentiality rules.		
		3.1.2 Harmonisation of data collection protocols and information exchange systems related to sharks	M	
		3.1.3. Cooperate and coordinate on MCS activities and fighting IUU activities, including related to sharks, at bilateral, subregional and regional levels	S	
		3.1.4. Coordination of research priorities and activities related to the conservation and management of sharks	O	
		3.1.5. Development and coordination of capacity building activities related to sharks (e.g., training workshops, practical trainings etc.) by consolidating available resources and fostering expertise at subregional and regional levels.	O/M	

	3.2. Strengthened/improved governance of subregional and regional organisations dealing with the conservation and management of sharks	**3.2.1.** Identification of policy, conservation and management issues related to sharks that require subregional/ regional cooperation to be effectively addressed.	O	
		3.2.2. Ensure transparency and inclusiveness through the participation of relevant stakeholders (e.g., fishermen, fishers' organisations, fisheries managers, scientists, civil society/NGOs etc.) in the proceedings of subregional, regional fora addressing sharks-related issues.	O	
		3.2.3. Development/ strengthening of collaborative arrangements between subregional/ regional/ international organisations involved in the conservation and management of sharks	O	
	3.3. Regular review and update of the RPOA-sharks to evaluate its adequacy and effectiveness, as well as, reflect new developments and knowledge	**3.3.1** Development/update of appropriate ToRs, methodologies (including indicators and metrics), to enable the assessment of progress towards RPOA objectives, identifying successes, shortcomings, gaps etc.	O	

		3.3.2. Assess progress towards the RPOA-sharks implementation, including through annual reports	S	
	3.4. Cooperation with relevant Multilateral Environmental Agreements (e.g., SPAW Protocol, CITES, CMS)	**3.4.1.** Participation in deliberations relevant to sharks (e.g., SPAW Protocol, CITES, CMS).	O	
4. Promote communication and increased public and stakeholder awareness about shark management and conservation	**4.1.** Ensure opportunities for engagement and participation by all stakeholders in shark conservation and fisheries management decisions to increase levels of public support, in line with actions under 3.2.2.	**4.1.1.** Stakeholder meetings organized, as appropriate, on specific issues related to shark conservation and management.	S	
		4.1.2 Processes for regular stakeholder feedback on the decision-making process on conservation and management measures	S	
	4.2 Effective communication with stakeholders	**4.2.1** Use existing and, if needed, develop appropriate communication tools for raising awareness about sharks adapted to the targeted audience.	S	
		4.2.2. Environmental education activities including surveys, information and awareness raising campaigns etc. to raise public awareness about shark conservation and management	S	

5. Capacity building and financing mobilization for the effective implementation of the RPOA.	**5.1.** Adequate resources are allocated for the implementation of the RPOA sharks	**5.1.1.** Elaboration of a strategy for ensuring that adequate financial resources are made available for RPOA implementation at national level	S	
		5.1.2 Identify and seek commitment of potential donor agencies and organizations for supporting the implementation of the RPOA	S	
	5.2. Availability of regional expertise in the conservation and management of sharks	**5.2.1.** Organise regular training workshops and courses in shark biology, ecology, data collection, identification, stock assessments methods, management, etc. for targeted audience including fisheries observers, researchers, fisheries managers, civil society and other relevant NGOs	S	

6 ANNEX 1: SHARK SPECIES PRESENT IN THE WECAFC AREA, REGULATED BY REGIONAL AND/OR GLOBAL INTERNATIONAL ORGANISATIONS (SEE TABLE BELOW)

Annex 1. Shark species present in the WECAFC area regulated by regional and/or global international organisations

ORDER	**FAMILY**	**SPECIES**	**ICCAT****	**CITES** (Appendices)	**CMS** (Appendices)	**Cartagena Convention SPAW Protocol** (REV 03/06/2019)
ORECTOLOBIFORMES	RHINCODONTIDAE	*Rhincodon typus*	Listed as an ICCAT species under Recommendation19-01	Appendix II - The export of any specimen requires the prior grant and presentation of an export permit. An export permit may be issued only if the specimen was legally obtained; if the export will not be detrimental to the survival of the species; and in the case of a living specimen prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment.- - The import of any specimen requires the prior presentation of either an export permit or a re-export certificate. - The re-export of any specimen requires the prior grant and presentation of a re-export certificate. - The introduction from the sea of any specimen requires the prior grant of an introduction from the sea certificate. A certificate may only be granted if the introduction will not be detrimental to the survival of the species; and in the case of a living specimen handled as to minimise the risk of injury, damage to health or cruel treatment.	Appendix I - Range States shall endeavour to a) conserve and restore habitats important to remove the species from danger of extinction; b) prevent, remove, compensate for or minimize the adverse effects of activities or obstacles to migration of the species; and c) prevent, reduce or control factors that are endangering or are likely to further endanger the species - Range States shall prohibit the taking. Exceptions may be made only if a) the taking is for scientific purposes; b) the taking is for the purpose of enhancing the propagation or survival of the affected species; c) the taking is to accommodate the needs of traditional subsistence users of such species; or d) extraordinary circumstances so require. - Exceptions must be precise as to the content, limited in space and time, and should not operate to the disadvantage of the species. Appendix II - Encouragement to conclude agreement that would benefit the species	Annex III Adoption of appropriate measures to ensure the protection and recovery of the Species, including: - Prohibition of all non-selective means of fishing - Institution of closed fishing seasons. - Regulation of the taking, possession, transport or sale of living or dead species, their eggs, parts or products.

LAMNIFORMES	CETORHINIDAE	*Cetorhinus maximus*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above)	
LAMNIFORMES	ALOPIIDAE	*Alopias superciliosus*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 09-07 - Collection and submission of catch, C&E, size sample data - Prohibition to retain onboard, transship, land, store, sell, offer for sale any part or whole carcass - Mandatory release or discard - Record discard, releases and fate - Encouragement to conduct research to identify nursery area	Appendix II (see above)	Appendix II (see above)	
LAMNIFORMES	ALOPIIDAE	*Alopias vulpinus*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 09-07 - Encouragement to ban direct fishery - Collection and submission of catch, C&E, size sample data - Encouragement to conduct research to identify nursery area	Appendix II (see above)	Appendix II (see above)	
LAMNIFORMES	LAMNIDAE	*Carcharodon carcharias*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above)	

LAMNIFORMES	LAMNIDAE	*Isurus oxyrinchus*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 10-06 - Improvement of the data collection (catch, C&E, size sample) - Prohibition to retain species for CPC that don't report catch data Recommendation 14-06 - Encouragement to conduct research to improve knowledge on the species Recommendation 21-09 (North Atlantic Stock) - Established international rebuilding program Two year ban on retention Aims to limit total fishing mortality to <250 t consistent with scientific advice	Appendix II (see above)	Appendix II (see above)	
LAMNIFORMES	LAMNIDAE	*Isurus paucus*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix II (see above)	
CARCHARHINIFORMES	CARCHARHINIDAE	*Carcharhinus falciformis*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 11-08 - Prohibition to retain onboard, transship, land, store, sell, offer	Appendix II (see above)	Appendix II (see above)	Annex III (see above)

			for sale any part or whole carcass (except for local consumption by developing coastal state) - Mandatory release or discard - Record discard, releases and fate			
CARCHARHINIFORMES	CARCHARHINIDAE	*Carcharhinus longimanus*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 10-07 - Prohibition to retain onboard, transship, land, store, sell, offer for sale any part or whole carcass - Record discard, releases and fate	Appendix II (see above)	Appendix I (see above)	Annex III (see above)
CARCHARHINIFORMES	CARCHARHINIDAE	*Carcharhinus obscurus*			Appendix II (see above)	
CARCHARHINIFORMES	CARCHARHINIDAE	*Prionace glauca*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 19-07 (North Atlantic Stock) - Annual TAC ; quota for the 3 CPC targeting the stock ; encouragement to maintain catches for other CPC - Improvement of the data collection (catch, C&E, size sample) - Encouragement to conduct research to improve knowledge on the species		Appendix II (see above)	

			Recommendation 21-10 (North Atlantic Stock) - Amends Recommendation 19-07 with minor updates Recommendation 19-08 (South Atlantic Stock) - Annual TAC - Improvement of the data collection (catch, C&E, size sample) - Encouragement to conduct research to improve knowledge on the species Recommendation 21-11 (South Atlantic Stock) - Amends Recommendation 19-08 with minor updates			
CARCHARHINIFORMES	SPHYRNIDAE	*Sphyrna lewini*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 10-08 - Prohibition to retain onboard, transship, land, store, sell, offer for sale any part or whole carcass (except for local consumption by developing coastal state) - Mandatory release or discard - Record discard, releases and fate - Encouragement to conduct research to identify nursing area	Appendix II (see above)	Appendix II (see above)	Annex III (see above)

CARCHARHINIFORMES	SPHYRNIDAE	*Sphyrna mokarran*	Listed as an ICCAT species under Recommendation 19-01 10-08 - Prohibition to retain onboard, transship, land, store, sell, offer for sale any part or whole carcass (except for local consumption by developing coastal state) - Mandatory release or discard - Record discard, releases and fate - Encouragement to conduct research to identify nursing area	Appendix II (see above)	Appendix II (see above)	Annex III (see above)
CARCHARHINIFORMES	SPHYRNIDAE	*Sphyrna zygaena*	Listed as an ICCAT species under Recommendation 19-01 Recommendation 10-08 - Prohibition to retain onboard, transship, land, store, sell, offer for sale any part or whole carcass (except for local consumption by developing coastal state) - Mandatory release or discard - Record discard, releases and fate - Encouragement to conduct research to identify nursing area	Appendix II (see above)	Appendix II (see above)	Annex III (see above)
SQUALIFORMES	SQUALIDAE	*Squalus acanthias*			Appendix II for the Northern hemisphere population (see above)	

RHINOPRISTIFORMES	PRISTIDAE	*Pristis pectinata*		Appendix I - The export of any specimen requires the prior grant and presentation of an export permit. An export permit may be issued only if the specimen was legally obtained; the trade will not be detrimental to the survival of the species; an import permit has already been issued; and in the case of a living specimen prepared and shipped as to minimise the risk of injury, damage to health or cruel treatment - The import of any specimen requires the prior grant and presentation of an import permit and either an export permit or a re-export certificate. An import permit may be issued only if the specimen is not to be used for primarily commercial purposes; if the import will be for purposes that are not detrimental to the survival of the species; and in the case of a living specimen, the proposed recipient of a living specimen is suitably equipped to house and care for it - The re-export of any specimen requires the prior grant and presentation of a re-export certificate. - The introduction from the sea of any specimen requires the prior grant of an introduction from the sea certificate. A certificate may only be granted if the introduction will not be detrimental to the survival of the species; if the specimen is not to be used for primarily commercial purposes and in the case of a living specimen, the proposed recipient of a living specimen is suitably equipped to house and care for it.	Appendix I (see above) Appendix II (see above)	Annex II Ensure total protection and recovery to the species: - Prohibition of taking, possession or killing or commercial trade of the species, their eggs, parts or Products - Prohibition to the extent possible of the disturbance of the species, particularly during sensitive periods

RHINOPRISTIFORMES	PRISTIDAE	*Pristis pristis*[11]		Appendix I (see above)	Appendix I (see above) Appendix II (see above)	Annex II (see above)
MYLIOBATIFORMES	MOBULIDAE	*Mobula birostris*	Listed as an ICCAT species under Recommendation 19-01	Appendix II, listed under Manda spp. (see above)	Appendix I (see above) Appendix II (see above)	Annex III (see above)
MYLIOBATIFORMES	MOBULIDAE	*Mobula hypostoma*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above))	
MYLIOBATIFORMES	MOBULIDAE	*Mobula mobular*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above)	
MYLIOBATIFORMES	MOBULIDAE	*Mobula tarapacana*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above)	
MYLIOBATIFORMES	MOBULIDAE	*Mobula thurstoni*	Listed as an ICCAT species under Recommendation 19-01	Appendix II (see above)	Appendix I (see above) Appendix II (see above)	

[11] Also known as *Pristis microdon*