



SHARK CONSERVATION LEGISLATION

A TOOLKIT FOR PHILIPPINE POLICY MAKERS

Produced 2018 by Save Sharks Network Philippines.

All or part of this publication may be reproduced with prior permission from Marine Wildlife Watch of the Philippines.

Cover photo: Whitetip reef shark in Tubbataha Reefs Natural Park by Boogs Rosales.



SHARK CONSERVATION LEGISLATION

A TOOLKIT FOR PHILIPPINE POLICY MAKERS





TABLE OF CONTENTS

FOREWORD

LIST OF ACRONYMS

EXECUTIVE SUMMARY

PART I : POLICY FRAMEWORKS

1. Introduction	10
1.1. Background	
1.2. Rationale and Objectives	
1.3. Structure of the Toolkit	
1.4. Biological and Management Considerations	
1.5. Guiding Principles	
2. International Legal Frameworks	16
2.1. International Conventions	
2.1.1. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	
2.1.2. Convention on the Conservation of Migratory Species of Wild Animals (CMS)	
2.1.3. The United Nations Convention on the Law of the Sea (UNCLOS)	
2.2. Regional Initiative	
2.2.1. Regional Fisheries Management Organizations (RFMOs)	
3. Policy Options and Case Studies	18
3.1. Full Protection of Sharks	
3.2. Shark Exploitation Allowed	
3.2.1. Target-Based Policy	
3.2.2. Limit-Based Policy	
4. National Legal Frameworks and Relevant Agencies	23
4.1. Legal Frameworks	
4.1.1. The 1987 Constitution of the Philippines	
4.1.2. Republic Act 9147 (Wildlife Resources Conservation and Protection Act) of 2001	
4.1.3. Republic Act 8550 (Fisheries Code of 1998) as amended by Republic Act No. 10654 (An Act to Prevent, Deter, Eliminate Illegal, Unreported, and Unregulated Fishing)	
4.1.4. Republic Act No. 8371 (Indigenous Peoples Rights Act of 1997)	
4.1.5. Republic Act No. 7160 (Local Government Code of 1991)	
4.1.6. Writ of Kalikasan	



4.1.7. Fisheries Administrative Order 193 (Series of 1998)	
4.1.8. Republic Act No. 8485 (Animal Welfare Act of 1998) as amended by Republic Act No. 10632	
4.2. Relevant Agencies	
4.2.1. Department of Environment and Natural Resources (DENR)	
4.2.2. Bureau of Fisheries and Aquatic Resources (BFAR) of the DA	
4.2.2.1. National Fisheries Research and Development Institute(NFRDI)	
4.2.2.2. National Stock Assessment Program (NSAP)	
4.2.3. Palawan Council for Sustainable Development (PCSD)	
4.2.4. Department of Tourism (DOT)	
4.3. Filed Bills on Shark Conservation	
5. Local Supporting Resources	29
5.1. National Plan of Action for the Conservation and Management of Sharks (NPOA-Sharks)	
5.2. <i>Pating Ka Ba? An Identification Guide to Sharks, Batoids and Chimaeras of the Philippines</i>	
5.3. Sharks and Rays Rescue and Response Manual	
5.4. 2020 Conservation Roadmap for Sharks and Rays in the Philippines	
6. Local Case Studies and Common Themes	31
6.1. Establishing the Whale Sharks Tourism Industry of Donsol	
6.2. Full Protection of All Shark and Ray Species in the Island of Cebu	
6.3. Declaring the Philippines' First Shark and Ray Sanctuary in Daanbantayan	
6.4. Lack of Social Preparation for the Protection of Mobula Rays	
PART II : LEGISLATIVE GUIDEBOOK	
1. Types of Government Action	34
2. Step by Step Guide	35
Step 1. Preparatory Questions	
Step 2. Policy Decision Tree	
Step 3. Capacity Assessment	
Step 4. Menu of Considerations for Implementation	
3. Shark Conservation Policy Templates	49
REFERENCES	63



LIST OF ACRONYMS

BFAR	Bureau of Fisheries and Aquatic Resources
CBD	Convention on Biological Diversity
CITES	Convention on International Trade of Endangered Species of Wild Fauna and Flora
CMS	Convention on the Conservation of Migratory Species of Wild Animals
DA	Department of Agriculture
DENR	Department of Environment and Natural Resources
DILG	Department of the Interior and Local Government
DOT	Department of Tourism
EEZ	Exclusive Economic Zone
FAO	Fisheries Administrative Order
HB	House Bill
IEC	Information, Education and Communication
LGU	Local Government Unit
MOU	Memoranda/Memorandum of Understanding
MWWP	Marine Wildlife Watch of the Philippines
NDF	Non-detriment Finding
NFRDI	National Fisheries Research and Development Institute
NPOA	National Plan of Action
NSAP	National Stock Assessment Program
PCSD	Palawan Council for Sustainable Development
RA	Republic Act
RFMO	Regional Fisheries Management Organisations
SB	Senate Bill
SEP	Strategic Environment Plan for Palawan
SSNP	Save Sharks Network Philippines
WWF	World Wide Fund for Nature
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
UN FAO	Food and Agriculture Organization of the United Nations



FOREWORD

Sharks are biological indicators of healthy reefs. In recent years, studies have shown that many species have had a decline in population due to a combination of natural and anthropogenic threats. Though the number of protected shark species in the Philippines has increased in the last decade, there is still much work to be done to protect these magnificent species.

The Department of Agriculture (DA), under the leadership of Secretary Emmanuel Piñol, through the Bureau of Fisheries and Aquatic Resources (BFAR), has made greater commitments to the conservation and protection of sharks and rays. There is also a growing interest from civil society -- Save Sharks Network Philippines (SSNP), through Marine Wildlife Watch of the Philippines, Save Philippine Seas, and Greenpeace, have been our strong and consistent allies in this pursuit.

It is opportune time to publish the Shark Conservation Legislation Toolkit. The increased public and government interest in sharks and rays provides an enabling environment to advocate for the regulation of utilization, create informative educational materials catering to a wide range of audiences, and gain support from local and global partners. The publication of this Shark Conservation Legislation Toolkit is particularly directed to our local government units (LGUs) nationwide to develop their own approach to shark conservation, and consequently, marine conservation.

With this, DA-BFAR congratulates SSNP for this Toolkit.



EDUARDO B. GONGONA

Undersecretary for Fisheries and concurrent BFAR National Director



EXECUTIVE SUMMARY

Approximately 200 species of sharks are found in the Philippines. As of 2018, only 21 of which are legally protected. The Shark Conservation Legislation Toolkit was created as a response to the growing number of local government units (LGUs) seeking legal instruments to protect and conserve sharks and rays in their jurisdiction. This Toolkit aims to provide a range of approaches to conserve, protect, and/or sustainably utilize sharks in the Philippine context.

This Toolkit is divided into two parts: policy frameworks and legislative guidebook. The first section offers an overview of existing policy and legal frameworks in the international, regional, national, and local levels, and supporting case studies. The second section provides guidance through a preparatory guide, capacity assessment, and decision tree, which will enable the user of this Toolkit to tailor the proposed legislation to the local context.



POLICY FRAMEWORKS

PART I





1. INTRODUCTION

1.1. BACKGROUND

Sharks are amongst the oldest surviving marine vertebrates on the planet, yet they are considered one of the most threatened taxa globally. The term “sharks” in this context of the Shark Conservation Legislation Toolkit (“Toolkit”) refers to the conventional image of a shark (true sharks), as well as its relatives: rays (batoid fishes) and chimaeras (ghost sharks). Collectively, these are cartilaginous fishes belonging to the class Chondrichthyes, represented by over 1,000 species that share similar taxonomic characteristics.

Despite the lack of understanding on the sharks’ various roles in ecosystems, it is clear that they are key players in structuring food webs, whether they are at the top of the food chain or at lower trophic levels. Sharks are typically depicted as apex predators that have significant top-down effects on food webs. They help keep prey populations healthy by feeding on weak, sick, or old fishes, and prevent overgrazing of critical marine habitats. Therefore, the removal of sharks from an ecosystem has the potential to create significant negative changes to predator-prey interactions in an ecosystem. Aside from ecological benefits, sharks have also been proven to boost local economies through sustainable tourism activities.

Recognizing the valuable roles that sharks play in the Philippine economy, the 2020 Conservation Roadmap for Sharks and Rays in the Philippines (“2020 Roadmap”) was developed in March 2017. The 2020 Roadmap envisions “a Philippines where all sharks are conserved for the benefit of all Filipinos.” The targets identified in the 2020 Roadmap are expected to propel shark and ray conservation forward, in hope of finding the balance between human needs and the integrity of the Philippine marine ecosystem.

Out of the Philippines’ approximately 200 species of sharks, only 21 species are legally protected, because they are listed in the Convention on the International Trade Endangered Species of Wild Flora and Fauna (CITES) Appendices. As stipulated in the Philippine Fisheries Code, Republic Act (RA) 8550, as amended by R.A. 10654, all species in the CITES appendices are protected nationally unless a positive non-detriment finding of trade/harvests to its population is provided.

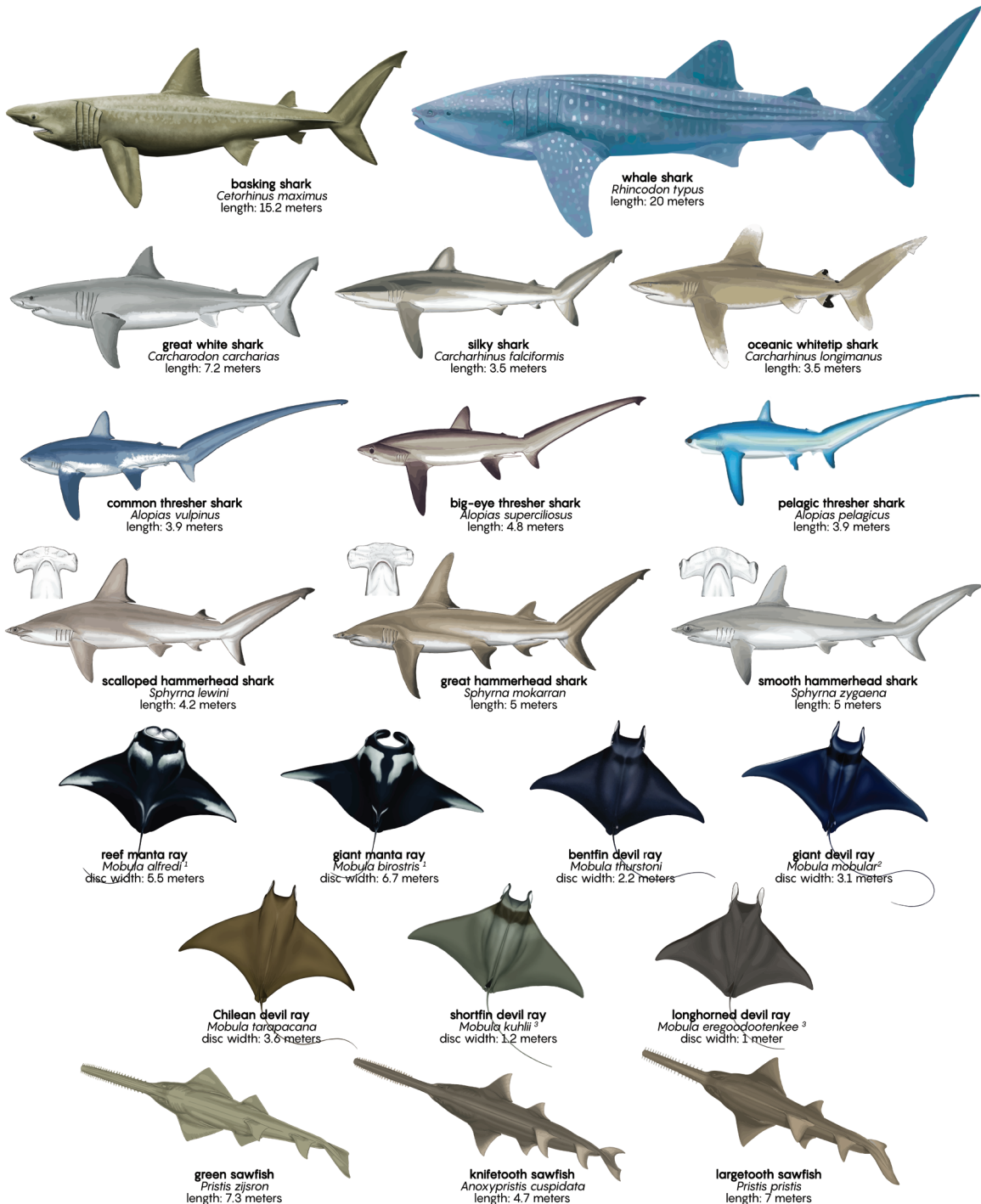
The following species are protected in the Philippines:

True sharks

Pelagic thresher shark, *Alopias pelagicus*
 Big-eye thresher shark, *Alopias superciliosus*
 Common thresher shark, *Alopias vulpinus*
 Scalloped hammerhead shark, *Sphyrna lewini*
 Smooth hammerhead shark, *Sphyrna zygaena*
 Great hammer head shark, *Sphyrna mokarran*
 Silky shark, *Carcharhinus falciformis*
 Whale shark, *Rhincodon typus*
 Great white shark, *Carcharodon carcharias*
 Oceanic whitetip shark, *Carcharhinus longimanus*
 Basking shark, *Cetorhinus maximus*

Batoids

Reef manta ray, *Mobula alfredi*
 Giant manta ray, *Mobula birostris*
 Longfin devil ray, *Mobula eregoodootenkee*
 Spinetail mobula, *Mobula japanica*
 Shortfin devil ray, *Mobula kuhlii*
 Sicklefin devil ray, *Mobula tarapacana*
 Smoothtail mobula, *Mobula thurstoni*
 Knifetooth sawfish, *Anoxypristis cuspidata*
 Largetooth sawfish, *Pristis pristis*
 Green sawfish, *Pristis zijsron*



basking shark
Cetorhinus maximus
length: 15.2 meters

whale shark
Rhincodon typus
length: 20 meters

great white shark
Carcharodon carcharias
length: 7.2 meters

silky shark
Carcharhinus falciformis
length: 3.5 meters

oceanic whitetip shark
Carcharhinus longimanus
length: 3.5 meters

common thresher shark
Alopias vulpinus
length: 3.9 meters

big-eye thresher shark
Alopias superciliosus
length: 4.8 meters

pelagic thresher shark
Alopias pelagicus
length: 3.9 meters

scalloped hammerhead shark
Sphyrna lewini
length: 4.2 meters

great hammerhead shark
Sphyrna mokarran
length: 5 meters

smooth hammerhead shark
Sphyrna zygaena
length: 5 meters

reef manta ray
*Mobula alfredi*¹
disc width: 5.5 meters

giant manta ray
*Mobula birostris*¹
disc width: 6.7 meters

bentfin devil ray
Mobula thurstoni
disc width: 2.2 meters

giant devil ray
*Mobula mobular*²
disc width: 3.1 meters

Chilean devil ray
Mobula tarapacana
disc width: 3.6 meters

shortfin devil ray
*Mobula kuhlii*³
disc width: 1.2 meters

longhorned devil ray
*Mobula eregoodootenkee*³
disc width: 1 meter

green sawfish
Pristis zijsron
length: 7.3 meters

knifetooth sawfish
Anoxypristis cuspidata
length: 4.7 meters

largetooth sawfish
Pristis pristis
length: 7 meters

Philippine protected sharks and rays.

Illustrations are not drawn to scale.

¹ Synonymous with *Manta alfredi* and *Manta birostris*.

² *Mobula mobular* and *Mobula japanica* are conspecific, with *Mobula mobular* being the valid name.

³ *Mobula kuhlii* and *Mobula eregoodootenkee* are conspecific, with *Mobula kuhlii* being the valid name.

In addition to the protection of these species through the CITES listing, other approaches to protect sharks in the Philippines include the establishment of marine protected areas (e.g., Tubbataha Reefs Natural Park in Cagayancillo, Palawan, and Monad Shoal and Gato Island in Daanbantayan, Cebu) and local legislation (e.g., Cebu Province including Cebu City and Lapu-Lapu City and Donsol Municipality in Sorsogon).

1.2 RATIONALE AND OBJECTIVES

The Shark Conservation Legislation Toolkit was created as a response to the growing number of local government units (LGUs) seeking legal instruments to protect sharks and rays in their jurisdiction. This Toolkit aims to provide a range of approaches to conserve, protect, and/or sustainably utilize sharks in the Philippine context. The development of the Toolkit contributes to the overall vision and targets of the 2020 Roadmap.

The Toolkit may be used by LGUs and government agencies to create legislation in fulfillment of local, national, and regional obligations in sustainable fisheries and wildlife conservation. This may also be used by people's organizations (POs) and non-governmental organizations (NGOs) to advocate for suitable policies in their respective site/s.

The various strategies presented in protection, conservation, and fishery management in this Toolkit should be applied depending on various factors, including the species present, habitat types, fishing practices, socioeconomic factors, political dynamics, and market forces, among others. It is necessary to consider the views of the stakeholders that will be affected by the legislation through consultations. Laws alone cannot solve the status and management of sharks, but if done with the best available science and proper community consultation, it is a step in the right direction under the context of sustainability and social equity.

This Toolkit may be used to assess the potential limits and capacity of government offices, and enable agencies and institutions to carry out their mandate to protect, and or conserve shark species in their respective areas.

1.3. STRUCTURE OF THE TOOLKIT

This Toolkit is divided into two parts: policy frameworks and legislative guidebook. The first section offers an overview of existing policy and legal frameworks in the international, regional, national, and local levels, and supporting case studies. The second section provides guidance through a preparatory guide, capacity assessment, and decision tree, which will enable the user of this Toolkit to tailor the proposed legislation to the local context.

1.4. BIOLOGICAL AND MANAGEMENT CONSIDERATIONS

Biological Considerations

Life history and reproductive rate

In general, sharks and rays grow slowly, mature later in life, and have few offspring. The life history of sharks and rays is more similar to mammals than to bony fish. For example, a *tanguige* (mackerel) produces 1.5 million eggs up to three times a year and has a lifespan of almost ten years. It is a fertile species. The blue shark on the other hand, produces only four to 75 pups every two years over its lifespan of 30 years. For most sharks, there are even fewer offspring -- the big-eye thresher shark produces only two to four pups every year. The tendency of shark populations to decline, if exploited, is higher than other fishery resources because of their life history characteristics. Therefore, sharks require special conservation attention to ensure that their populations are not negatively affected by threats.

The mortality of any species should be limited to what its population could accommodate without causing a decline. Ideally, the goal to any fishery management regime is to apply the shark's life-history, which differs from species to species. This will ensure that the level of mortality is still healthy for a given population.

Therefore, conventional fisheries management approaches, such as reaching maximum sustainable yield, may not be sufficient to rebuild depleted shark populations because they are unlike other fishes. Some of the more stringent approaches used to reverse declines in large marine mammals may be more appropriate for sharks, including full protection of the most threatened species.

Migration

Another consideration would be the movement of sharks, as some species are known to migrate both long and short distances. Whale sharks are considered highly migratory, travelling up to 20,000 km in a nine-month period. In such cases, protection and management interventions should go beyond municipal, provincial, national, and even regional jurisdictions, as stipulated in the Convention on the Conservation of Migratory Species.

Management Considerations

Non-prioritization

Unless explicitly utilized in tourism, or for its liver and other body parts, all sharks are not considered commercially important species in the Philippines, and therefore not comprehensively or highly prioritized in terms of policy, research, and education.

Data deficiency

There are very limited studies on the population, biology, habitat use, and migratory routes of sharks in the Philippines. Economic valuation, supply chain, and conservation status are not sufficiently addressed. Advocates and policymakers often rely on international sources, such as the International Union for the Conservation of Nature (IUCN), for information. This may not be reflective of the local context, which hinders the creation of appropriate science-based policies.

Lack of educational programs

There is a lack of information, education, and communication (IEC) materials and programs for shark conservation and management measures not just at the grassroots level, but also in other key sectors in society, such as business and legislation.

Enforcement

Many enforcement agencies in the Philippines are understaffed and have limited resources. Many of them also do not have the technical expertise to identify shark species, especially if the shark is not landed whole. The archipelagic nature of the Philippines with 7,641 islands poses considerable challenges in monitoring and enforcement. Multiple reports show that the taking of sharks, both protected and non-protected species, are usually apprehended when the shipment is on its way out of the country, and the sharks are already dead. Litigation is often not properly conducted and concluded, resulting in very few case resolutions and convictions.

Bycatch

Some, if not most, of the shark catch in the Philippines have been reported as bycatch, which means that they are unintentionally caught in the process of catching another target species. It is a common practice to retain sharks that are caught as bycatch, then sold and utilized instead of being safely released or returned alive to their habitat.

In industrial fishing, such as in tuna fisheries, bycatch can include seabirds, turtles, and sharks. Managed Fisheries under Regional Fisheries Management Organizations (RFMOs) are urged to implement the precautionary approach for the full utilization of dead sharks, to prevent removal of fins on board and discarding of carcass back at sea, and “to facilitate improved species-specific catch and landings data and monitoring of shark catches and the identification and reporting of species-specific biological and trade data;”¹ through the Fins Naturally Attached approach.

Multiple by-products and derivatives

Sharks yield a number of products. Fins are the most highly valued product, and are often exported to other countries for shark’s fin soup. Shark meat has become a cheap source of protein for both humans and animals (as fish meal). Squalene, produced from shark liver, is used for personal care products and cosmetics such as lipstick and whitening pills, while the skin is used for leather goods and furniture. With sharks being a multiple source of income for different industries, it is a challenge to impose regulations that address every stakeholder in the supply chain.

1.5. GUIDING PRINCIPLES

The Toolkit is guided by the following principles:

United Nations (UN) Sustainable Development Goals

The UN General Assembly adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs). This Agenda emphasizes a holistic approach to achieving sustainable development for all. The conservation of sharks directly contributes to the achievement of SDG 1 (No Poverty), 10 (Reduce Inequality); 11 (Sustainable Cities and Communities); 12 (Responsible Consumption and Production); 14 (Life Below Water); and 17 (Partnerships to achieve the Goal).²

Precautionary Approach

The precautionary approach is a set of agreed cost-effective measures and actions, including future courses of action, which ensures prudent foresight, reduces or avoids risks to the resources, the environment, and the people, to the extent possible, taking explicitly into account existing uncertainties and the potential consequences of being wrong.³ The precautionary principle, proposed as a new guideline in environmental decision making, has four central components: taking preventive action in the face of uncertainty; shifting the burden of proof to the proponents of an activity; exploring a wide range of alternatives to possibly harmful actions; and increasing public participation in decision making.⁴ In cases where the effect of a human activity is uncertain to a given population of shark and is more likely to cause some level of harm, the precautionary approach needs to be taken unless proven otherwise first.

Community-Based Coastal Resources Management (CBCRM)

CBCRM is a “response to the limitations of the top-down approach of managing coastal resources in the Philippines. It is a process of involving local community members and other stakeholders in the management of the coastal resources.”⁵ It is governed by the principles of community empowerment, equity, ecological soundness, and sustainable development, respect for indigenous/traditional knowledge, and gender-fairness. It seeks to address the core issue of open access, with all its inefficient and iniquitous consequences, by strengthening the community’s access and control over their resources.⁶ Some sharks, considered a marine resource that is utilized, would benefit greatly from CBCRM programs.

Ecosystem-Based Fisheries Management

The UN FAO suggests that an “ecosystem approach to fisheries strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries.” The goal of ecosystem-based management is to maintain ecosystems in a healthy, productive, and resilient condition so they can provide the services humans want and need. Fishing for sharks, for example, is only one variable affecting species population. Additional elements need to be considered, such as their interactions with other species, the effects of environmental changes, and other stresses on their habitat.⁷



2. INTERNATIONAL LEGAL FRAMEWORKS

2.1. INTERNATIONAL CONVENTIONS

When looking at local realities, it is important to look at existing global agreements and international legally binding frameworks. These serve as a guide or reference for developing local compatible measures to treaties or agreements to which the Philippines is a party.

2.1.1. Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

The CITES is an international agreement between governments that entered into force in 1975 and aims to ensure that the international trade of wildlife does not threaten the species' survival. The agreement recognizes that, with wildlife trade commonly crossing borders between countries, international cooperation is needed to prevent the over-exploitation of certain species, particularly those that are threatened. Although it is a voluntary international agreement, signatory parties are legally bound by the framework provided by CITES and several strategies have been developed to address non-compliance of a state. In order to implement the CITES framework at the national level, the parties still have to adjust and adopt their own domestic laws.

As of October 2016, the Convention had 183 parties. The Philippines signed in 1981. In the Philippines, the CITES rules and regulations are enforced through RA 9147 (Wildlife Resources Conservation and Protection Act) and RA 8550 (Philippine Fisheries Code), as amended by RA 10654.

The CITES has three Appendices or listings of wildlife, for which international trade is either illegal (Appendix I species), strictly regulated (Appendix II species), or permitted with a certificate of origin and an appropriate permit (Appendix III species).

As of 2018, 21 shark species are listed in CITES Appendices I and II.

2.1.2. Convention on the Conservation of Migratory Species of Wild Animals (CMS)

The CMS or the Bonn Convention (not to be confused with the Bonn Agreement) is an inter-governmental treaty concluded under the aegis of the United Nations Environment Programme in 1979, which entered into force in 1983. It is concerned with the conservation of wildlife and habitats on a global scale and aims to conserve terrestrial, marine, and avian migratory species throughout their range. The Philippines ratified its membership to CMS in 1993 through an Instrument of Ratification — Philippine Senate Resolution No. 28 and so far, remains the only ASEAN member state to have signed the convention.

The Convention provides guidance and direction for the conservation of migratory species and includes the CMS Appendices, listing migratory species threatened with extinction, requiring immediate trans-boundary interventions, and species in need of special protection. The Convention's Appendix I is the list of migratory species threatened with extinction. Migratory species that need or would significantly benefit from international co-operation are listed in Appendix II of the Convention.

The CMS also promotes international cooperation for the conservation of migratory species through legally binding treaties (called Agreements) and less formal instruments, such as Memoranda of Understanding (MOU). The Philippines is a signatory to the CMS-MOU on the Conservation of Migratory Sharks ("Sharks MOU") which aims to achieve and maintain a favorable conservation status for migratory sharks throughout their range.

2.1.3. The United Nations Convention on the Law of the Sea (UNCLOS)

Due to the migratory nature of certain shark species, sharks cross municipal waters, exclusive economic zones (EEZ) and the high seas. For each regime, different rules of sovereignty apply and different stakeholders are required to uphold the agreements forged under the international conventions mentioned above. These zones and according rights are determined under the UNCLOS. Moreover, UNCLOS dedicates its Part XII to the Protection and Preservation of the Marine Environment, emphasizing that the obligation states have to protect and preserve the marine environment. This is well complemented by the Convention on Biological Diversity (CBD), which requires parties to keep populations above minimum viable populations and relates to all threats. The UNCLOS establishes that fishing nations must cooperate to ensure the conservation of highly migratory species both within and beyond their EEZ through appropriate international organizations. UNCLOS includes 72 shark species among its list of highly migratory species and thus these species should be under international management.⁸

2.2. REGIONAL INITIATIVE

2.2.1. Regional Fisheries Management Organizations (RFMOs)

RFMOs are multinational bodies tasked to facilitate cooperation in the fisheries management in the high seas. They are also tasked to collect fisheries statistics, assess resources, propose management decisions, and monitor fishing activity within the convention area. RFMOs manage both countries within the convention area, and countries fishing within the convention area (distant water fishing nations).⁹



3. POLICY OPTIONS AND CASE STUDIES

Policies may be categorized into two: those that afford sharks full protection and those that allow shark exploitation or utilization.

3.1. FULL PROTECTION OF SHARKS

“Full protection” is defined as a total ban on shark fishing (commercial or municipal) and a ban on the sale and trade of shark by-products and derivatives.

EXAMPLE: Brunei Protects All Sharks

In June 2013, Brunei Darussalam became the first Asian country to officially ban the catch and landing of all shark species. The importation and sale of shark fins and products in the domestic market, including supplements and medicines, are also banned.¹⁰

3.2. SHARK EXPLOITATION ALLOWED

The policy options that allow the exploitation of sharks are further divided into two based on the recommendation of Schiffman et al: target-based and limit-based. Target-based policies “aim for sustainable fisheries exploitation” and limit-based policies “aim to prevent all fisheries exploitation of entire taxa”.¹¹ Local governments may explore implementing one or a combination of the following policy options.

3.2.1 TARGET-BASED POLICY

Quota

Fishing quotas are important tools in the context of species exploitation or utilization to ensure that target species will not experience overfishing. Quota refers to the maximum amount of stock that can be taken within a certain period of time, and is determined by scientifically defined reference points, and can be implemented either through fishery as a whole or per individual fisherfolk efforts.

DEFINITION: Reference Points

benchmark values often based on indicators such as fishery stock size or the level of fishing that serves as standard to compare estimates of a fishery stock size and fishing mortality over time depending on the biological characteristics of the species. Reference points can mark: (a) a limit or a level that should be avoided; (b) a target, which should be achieved and maintained; or (c) a trigger that signals the need to take prescribed actions.¹²

Size Limits

There are two types of size limits: on fishing gear and on species. The establishment of minimum size for species is particularly valuable for fishes that have low reproductive capacity. Thus, a limiting minimum size will not only protect immature fish, but also fecund fish.

Another type of size limit pertains to regulation of mesh size. This has been widely used for controlling the minimum commercial size in protected fish populations because it does not affect the cost of fishing. However, where the fishing depends on multispecies resources, it is difficult to design appropriate mesh size regulations to ensure adequate protection for valuable fish and permit catches of low value species.

In most instances, these two requirements are contradictory because a mesh size large enough to allow one species to grow to optimal size may permit another species to escape permanently. A smaller size, on the other hand, will reduce or even destroy the stock of the first species while allowing a reasonable catch in the second. Therefore, it has to be decided whether to remove some of the young of the protected fishes or to populate the water with fishes of little or no value.¹³

EXAMPLE: Regulation on Mesh Size

FISHERIES ADMINISTRATIVE ORDER NO. 226

Series of 2008

SUBJECT: Regulation on the Mesh Size of Tuna Purse Seine Nets and Trading of Small Tuna

Section 2. Prohibition.

It shall be unlawful for any person, association, cooperative, partnership or corporation to operate tuna purse seine nets with mesh size smaller than 8.89 cm at the bag or bunt portion in catching tuna. It shall be unlawful also to trade small tuna caught beyond the bycatch ceiling.

Closed Seasons

Closed seasons are management measures to increase the yield by increasing recruitment and reducing fishing mortality. Fishing is prohibited in the main spawning grounds of valuable fishes during the spawning period and in the feeding grounds of the young. The decision on dates allowing fishing operations may vary for each species and different areas. It also varies from year to year in consideration of climatic ecological conditions of a water body.

Modifications of seasonal and area closures can be a real advantage in the management of multispecies fisheries. If the proportions of different species caught vary from area to area, or from season to season in the same area, proper regulations can ensure the most valuable combination of species in the final catch.¹⁴

EXAMPLE: Closed Season in the Visayan Sea

FISHERIES ADMINISTRATIVE ORDER NO. 167-3

Series of 1989

SUBJECT: Establishing a closed season for the conservation of sardines and herrings and mackerels in the Visayan Sea

Section 2. Prohibition.

It shall be unlawful for any person, association, or corporation to kill or catch, or cause to be killed or caught or taken from those waters, purchase, sell, offer or expose for sale, or have in his possession or under his control any sexually mature sardines and herrings and mackerels or their larvae, fry or young known locally as *lupoy*, *silinyasi*, *linatsay* or *manansi* during the closed season from November 15 to March 15, inclusive, of every year, in that portion of the Visayan Sea and adjoining waters enclosed by line drawn through the following points and coastlines.

Gear Modification

Gear modification is a management and conservation mechanism measure to ensure selective fishing, reduce unwanted catches, and eliminate or transform active and destructive gears to being passive and non-destructive, and reduce the overall impacts of fishing methods on benthic communities, the ecosystem, and habitats.¹⁵

DEFINITION: Fishing Gear

REPUBLIC ACT 10654

Fishing Gear — refers to any instrument or device and its accessories utilized in taking fish and other fishery species.

(a) Active Fishing Gear — is a fishing device characterized by the pursuit of the target species by towing, pushing the gears, surrounding, covering, dredging, and scaring the target species to impoundments; such as, but not limited to, trawl, purse seines, Danish seines, paaling and drift gill net.

(b) Passive Fishing Gear — is characterized by the absence of pursuit of the target species; such as, but not limited to, hook and line, fishpots, traps and gill nets set across the path of the fish.

EXAMPLE: Use of Fine Mesh Net

REPUBLIC ACT 10654

Section 93. Use of Fine Mesh Net

It shall be unlawful to engage in fishing using nets with mesh smaller than that which may be determined by the Department: Provided, That the prohibition on the use of fine mesh net shall not apply to the gathering of fry, glass eels, elvers, tabios, and alamang and other species that by their nature are small but already mature, as identified in the implementing rules and regulations by the Department.

Species-Specific Restrictions

Species-specific restrictions are species management and regulatory frameworks that includes trading regulation, conservation listing, stocks assessment, and the development of local and national policy as compatible measures to treaties or agreements to which the Philippines is a party.

3.2.2. LIMIT-BASED POLICY

Shark Sanctuary

Sanctuary designations typically prohibit the commercial shing of all sharks, the retention of sharks caught as bycatch, and the possession, trade, and sale of sharks and shark products within a country's full EEZ. Some also ban fishing gear typically used to target sharks, such as wire leaders and shark lines.

EXAMPLE: Shark sanctuaries around the world

In 2009, Palau designated its national waters as the world's first shark sanctuary. As of February 2018, a total of 17 sanctuaries have been created around the world. In 2015, nations and territories in the western Pacific Ocean linked their efforts to create the first regional sanctuary in Micronesia. Collectively, these protected areas spread across more than 19.4 million square kilometers.

Harvest Control

Harvest control refers to achieving a specific fishing objective reflecting a certain sustainable level of fishing efforts and fish stocks status.

DEFINITION: Harvest Control Rules

actions or set of actions to be taken to achieve a medium or long-term target reference point while avoiding reaching or breaching a limit reference point, essentially pre-agreed guidelines that determine how much fishing can take place, based on indicators of the targeted stock's status.¹⁶

Marine Protected Area (MPA)

The IUCN defines an MPA as, "[a]ny area of intertidal or sub-tidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment".¹⁷ MPAs may be declared to protect important habitats for sharks, e.g., where they mate, feed, clean, or for tourism purposes.

EXAMPLE: Prohibition on Fishing in MPAs

REPUBLIC ACT 10654

Section 101 prohibits "[f]ishing in Marine Protected Areas, Fishery Reserves, Refuge and Sanctuaries.— It shall be unlawful to fish in marine protected areas, fishery reserves, refuge, or fish sanctuaries as declared by the Department or the LGUs.

In the Philippines, there are 1,800¹⁸ MPAs declared with only 15¹⁹ that are known to be important shark habitats.

Fins Naturally Attached (FNA)

Shark finning is a practice “that occurs when fishermen catch sharks, cut off their fins and throw the still-living animals back into the water, where they die slow and painful deaths.”²⁰ Since shark meat has lower economic value than the fins, this practice allows fishers to maximize the number of fins they can hold on board their vessels.

FNA is a management and regulatory measure stipulating that fishermen cannot land a shark without its fins intact on the body and cannot possess, transfer, or land shark fins that are not naturally attached to the corresponding carcass. The FNA policy does not necessarily decrease the number of sharks killed, reduce consumption, or reduce exportation, but it is intended to ensure traceability of species, collection and management of species-specific data, and full utilization of the species.

EXAMPLE: India Adopts FNA Policy

In 2013, India adopted the FNA measure. Named the second largest shark fishing nation in the world, this decision was commended by environmental and animal welfare groups. However, in 2015, the initiative, “despite its intent, [had] little impact on the unconscionable number of sharks killed, or the illegal export of their fins.”²¹ In 2015, India banned the export of shark fins of all species of sharks.

Non-detriment Finding (NDF)

Non-detriment finding (NDF) is a method of assessing the risk of harvests and trade on a species. It takes into consideration intrinsic biological vulnerability and conservation concerns, pressures on the species, and existing management measures, among others. The NDF may be negative (trade prohibited) or positive (trade allowed). It is intended to ensure that trade of the species is sustainable, meaning that any takes will not be detrimental to the survival of the species that allows population throughout their range to be maintained.

The development of an NDF should ideally take place before any shark species destined to be exported or introduced from the sea has been fished and landed. This is particularly important because NDFs may come with conditions, such as improving management through restrictions on catch (e.g., an annual Total Allowable Catch (TAC) comprised of separate quotas for national fleets or individual vessels) or export quantities, or the requirement of monitoring and control systems to ensure compliance with such limits. Another condition may be the need for traceability from catch to consumer. Setting such conditions in advance of harvesting will help to discourage unsustainable mortality driven by trade demand.²²

It is expected that an NDF will be applied to Philippine sharks before their exploitation is allowed.



4. NATIONAL LEGAL FRAMEWORKS AND RELEVANT AGENCIES

Local laws must be consistent with and reinforcements of national policies and the mandate of relevant government agencies. This chapter identifies state policies and Republic Acts that support and set the precedent for a local shark ordinance, and the government agencies that must be involved in shark conservation.

4.1. LEGAL FRAMEWORKS

4.1.1. The 1987 Consitution of the Philippines

Article XII, Section 2 of the 1987 Constitution states that “[a]ll lands of the public domain, waters, minerals, coal, petroleum, and other mineral oils, all forces of potential energy, fisheries, forests or timber, wildlife, flora and fauna, and other natural resources are owned by the State. With the exception of agricultural lands, all other natural resources shall not be alienated. The exploration, development, and utilization of natural resources shall be under the full control and supervision of the State.”

With regard to the ocean, the Constitution states in the same Section and Article that “[t]he State shall protect the nation’s marine wealth in its archipelagic waters, territorial sea, and exclusive economic zone, and reserve its use and enjoyment exclusively to Filipino citizens.”

4.1.2. Republic Act No. 9147 (Wildlife Resources Conservation and Protection Act) of 2001

Approved on 30 July 2001, this Act aims to: 1) conserve and protect wildlife species and their habitats to promote ecological balance and enhance biological diversity; 2) regulate the collection and trade of wildlife; 3) pursue, with due regard to the national interest, the Philippine commitment to international conventions, protection of wildlife and their habitats; and, 4) initiate or support scientific studies on the conservation of biological diversity. The law is enforceable for all wildlife species found in all areas of the country, including protected areas under R.A. No. 7586, otherwise known as the National Integrated Protected Areas System (NIPAS) Act, and critical habitats. It also applies to exotic species, which are subject to trade, are cultured, maintained and/or bred in captivity or propagated in the country.

4.1.3. Republic Act No. 8550 (Fisheries Code of 1998), as amended by Republic Act 10654 (An Act to Prevent, Deter, Eliminate Illegal, Unreported, and Unregulated Fishing)

This Act states that it is state policy to “adopt the precautionary principle and manage fishery and aquatic resources, in a manner consistent with the concept of an ecosystem-based approach to fisheries management and integrated coastal area management in specific natural fishery management areas, appropriately supported by research, technical services and guidance provided by the State.” This Act makes coastal and marine conservation a concern of the state while at the same time attempting to ensure food security.

Chapter II, Section 11 of the Act (Protection of Rare, Threatened and Endangered Species) mandates the DA through BFAR to create conservation and rehabilitation measures to conserve and protect our marine resources particularly those that are rare, threatened and endangered. Chapter IV (Fisheries Reserves, Refuge and Sanctuaries) calls for the establishment of fish refuge and sanctuaries and for the efficient administration and protection of marine habitats. Chapter VI (Prohibited Acts), Section 97 (Fishing or Taking of Rare, Threatened and Endangered Species) imposes a penalty for the fishing or taking of these rare, threatened and endangered species as listed by CITES and as determined by the DA. Section 105 (Obstruction of Defined Migration Paths) further extends the scope of protection to include migratory species by acknowledging the significance of their migratory paths to the survival of these species. This particular section has a major impact on shark conservation, given the highly migratory nature of selected shark species.

4.1.4. Republic Act No. 8371 (Indigenous Peoples Rights Act of 1997)

The Act provides for the recognition and promotion of the right of indigenous cultural communities/indigenous peoples within the framework of the Constitution.

Chapter VIII, Section 57 stipulates that Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) have priority rights in the harvesting, extraction, development or exploitation of any natural resources within the ancestral domains. Chapter III, Section 9 of the Act also emphasizes the responsibilities of ICCs/IPs to their ancestral domains, in particular to maintain an ecological balance.

4.1.5. Republic Act No. 7160 (Local Government Code of 1991)

Section 16 of the Local Government Code mandates LGUs to “enhance the right of the people to a balanced ecology, encourage and support the development of appropriate and self-reliant scientific and technological capabilities, improve public morals, enhance economic prosperity and social justice, promote full employment among their residents...” The Act states that “[m]unicipalities shall have the exclusive authority to grant fishery privileges in the municipal waters and impose rentals, fees or charges...” Thus, the LGU is in charge of governing its municipal waters, i.e., “marine waters included between two lines drawn perpendicularly to the general coastline from points from where boundary lines of the municipality or city touch the sea at low tide and a third line parallel with the general coastline and fifteen (15) kilometres from it.”

The Local Government Code also outlines the duty of national government agencies (NGAs) to maintain ecological balance. All NGAs related to planning and implementation of any project or program that may cause “pollution, climatic change, depletion of non-renewable resources, loss of cropland, rangeland, or forest cover, and extinction of animal or plant species” have to “consult with the local government units, nongovernmental organizations, and other sectors concerned and explain the

goals and objectives of the project or program, its impact upon the people and the community in terms of environmental or ecological balance, and the measures that will be undertaken to prevent or minimize the adverse effects thereof." This affirms the responsibility of agencies such as DENR and DA-BFAR to consult with LGUs that will be directly affected by shark-related policies and/or programs.

4.1.6. Writ of Kalikasan

In case the abovementioned laws and proclamations are not being followed properly, citizens can demand justice through the Rules of Procedure for Environmental Cases, developed and issued by the Supreme Court as A.M. No. 09-6-8-SC. It became effective on April 29, 2010. Also known as the Writ of Kalikasan, this legal framework aims to give people an opportunity to petition against any organization or individual who violates or threatens to violate the person's constitutional right to a balanced and healthful ecology.

4.1.7. Fisheries Administrative Order No. 193 (Series of 1998)

FAO 193 (Series of 1998) or the Ban on the Taking, Catching, Selling, Purchasing and Possessing, Transporting and Exporting of Whale Sharks and Manta Rays was the first policy that protected any species of sharks and rays in the country. The FAO was a reaction to the fishery of whale sharks amidst the development of tourism based on interaction with these animals. During this time, there was a perceived growing threat to whale sharks fuelled by the demand for their meat in some Asian countries. This law allowed whale shark-based tourism to develop in several aggregation sites in the Philippines.

Although considered to be ground-breaking in shark conservation, the FAO did not consider the presence of two species of manta rays in the country (giant manta ray and reef manta ray), as well as look-alike species such as the devil rays.

4.1.8. Republic Act No. 8485 (Animal Welfare Act of 1998) as amended by Republic Act No. 10631

The Animal Welfare Act of 1998 protects and promotes the welfare of all animals in the Philippines by supervising and regulating the establishment and operations of all facilities utilized for breeding, maintaining, keeping, treating or training of all animals either as objects of trade or as household pets. Aquaria/zoo and holding facilities for live sharks should be subject to the rules and regulations of this Act, which includes securing a permit from the Bureau of Animal Industry (for pet shop, kennel, veterinary clinic, veterinary hospital, stockyard, corral, stud farm or zoo for the breeding, treatment, sale or trading, or training of animals). The law also prohibits any person to torture any animal, to neglect to provide adequate care, sustenance or shelter, or maltreat any animals, kill or cause or procure to be tortured or deprived of adequate care sustenance or shelter, or maltreat or use the same in research or experiments not expressly authorized by the Committee on Animal welfare.

4.2. RELEVANT AGENCIES

These agencies are important to the conservation and sustainable utilization of all shark species by collecting and providing scientific data, information, and stocks status. DENR, PCSD, and BFAR also have the capacity for law enforcement and policy development.

4.2.1. Department of Environment and Natural Resources (DENR)

The DENR has jurisdiction over all terrestrial plant and animal species, all turtles and tortoises and wetland species, including but not limited to crocodiles, water birds and all amphibians and dugong. Though it has no direct jurisdiction over sharks, part of its mandate is to manage protected areas, which may be critical habitats for sharks.

4.2.2 Bureau of Fisheries and Aquatic Resources (BFAR) of the DA

The DA exercises jurisdiction over all declared aquatic critical habitats, all aquatic resources including but not limited to all fishes, aquatic plants, invertebrates and all marine mammals, except the dugong.

Under Presidential Decree, PD 704 (1972-1985) and Executive Order, EO 116 (1986-1997), BFAR was mandated and shall be responsible for the production, management and regulatory, protection, conservation and law enforcement, and policy formulation of the country's fisheries and aquatic resources. BFAR is also the key agency for aquatic and marine resources to multilateral negotiations.

4.2.2.1. National Fisheries Research and Development Institute (NFRDI)

The Philippine Fisheries Code of 1988 or Republic Act 8550 (as amended by Republic Act 10654), Section 82, created the NFRDI in recognition of the important role of fisheries research in the development, management, conservation and protection of the country's fisheries and aquatic resources.

4.2.2.2. National Stock Assessment Program (NSAP)

The NSAP was conceptualized due to the lack of standardized and continuous information on fishery resources which is fundamental to fishery management and the apparent institutional incapacity of the Regional Field Units to conduct resource assessment studies in their respective areas of jurisdiction. The Program formally started in June 1997 to collect catch and effort data in every region.

4.2.3. Palawan Council for Sustainable Development (PCSD)

The governance, implementation, and policy direction of the Strategic Environment Plan (SEP) is exercised by the PCSD. The PCSD has established a list of threatened species by establishing its protected species list, previously using the global IUCN Red List categories, and are currently developed a Resolution Providing Guidelines for the Determination and Classification of the Categories of Terrestrial and Aquatic Wildlife Flora and Fauna Found in the Province of Palawan. The resolution considers both IUCN categories and CITES Appendix listings, applicable to all shark species in the province. This resolution will be used to revise the existing list of protected species in Palawan, including sharks and rays, from their updated list of threatened terrestrial and marine wildlife in Palawan and their categories pursuant to the Wildlife Act per PCSD Resolution No. 15-521 Series of 2015.

4.2.4. Department of Tourism (DOT)

The DOT, although not mandated to protect the country's marine resources, plays a crucial role in promoting biodiversity-based tourism such as SCUBA diving, beach area development, and marine wildlife interactions. Tourism activities are not covered under R.A. 9147 and R.A. 10654 and are therefore not regulated. The lack of regulation has been a growing concern with the rapid development in coastal areas, increasing visitor arrivals, and unregulated interaction with many of the country's protected marine megafauna, including sharks.

A proposed Administrative Order among the DENR, DOT, DA, and DILG called Rules and Regulations Governing the Conduct of Marine Wildlife Tourism Interactions in the Philippines aims to address the policy gap in tourism interactions with sharks and rays, among other protected species.

4.3. FILED BILLS ON SHARK CONSERVATION

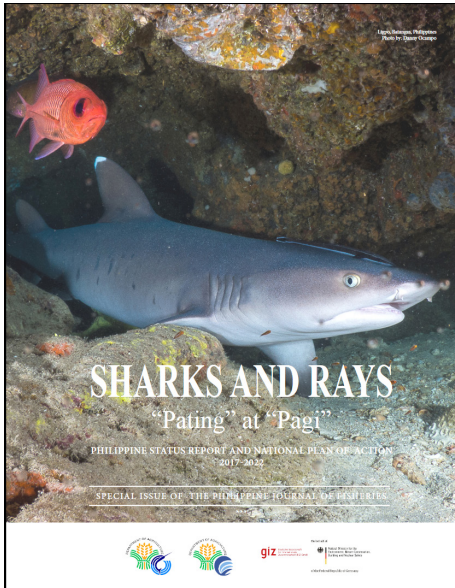
The first shark-specific bill filed in the Philippine Congress was in 2010: Senate Bill (SB) 2616, which bans the catching, sale, purchase, possession, transportation, importation, and exportation of all sharks and rays. A similar bill was filed in the House of Representatives a year later, House Bill (HB) 5412. In 2017, two SBs were filed: SB 905 and SB 1245, both banning the catching, sale, purchase, possession, transportation, importation, and exportation of all sharks and rays.

These bills reflect legislative interest in shark conservation. However, their current forms did not address multiple issues, such as lack of research, sustainable fisheries, bycatch, livelihood, tourism, captivity, and traceability, among others. In July 2018, SB 1863 and HB 7912 were filed, entitled *An Act Regulating the Catching, Sale, Purchase, Possession, Transportation, Importation, and Exportation of All Sharks, Rays, and Chimaeras and any Part Thereof in the Country*.



5. LOCAL SUPPORTING RESOURCES

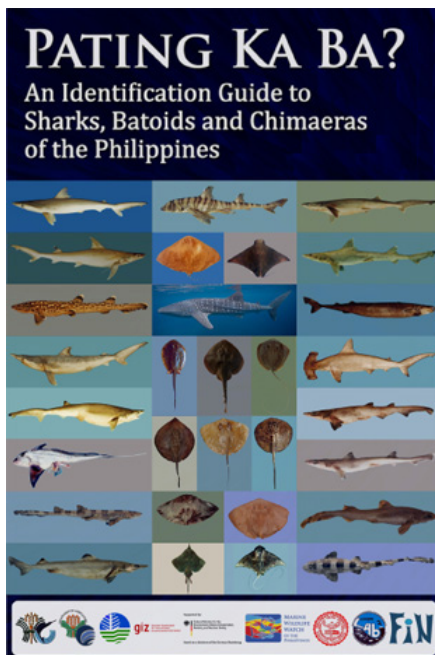
5.1. NATIONAL PLAN FOR THE CONSERVATION AND MANAGEMENT OF SHARKS IN THE PHILIPPINES



The conservation of sharks and rays in the country is embodied in a plan called the National Plan for the Conservation and Management of Sharks in the Philippines (NPOA-Sharks). It was first published in 2009 and updated in 2018. The NPOA-Sharks was developed in response to the call of the United Nations Food and Agriculture Organization to all its member-states with fisheries catching sharks to identify needed research, monitoring, conservation, and management measures to ensure sustainable fisheries and populations for all chondrichthyans that occur in their waters, following the guidelines identified in the International Plan for the Conservation and Management of Sharks in the Philippines. The NPOA-sharks could be downloaded from the NFRDI and MWWP website for free.

5.2. PATING KA BA?

An Identification Guide to Sharks, Batoids, and Chimaeras of the Philippines



Pating Ka Ba? ("Are You a Shark?") is the first guide book published in the Philippines on the identification of sharks, batoids, and chimaeras of the country. The book provides relevant information to the almost 200 species found in the Philippines, which is comprised of 110 species confirmed to be present based on voucher specimens and photos; 34 species reported to be present based on distributional information, but still need further confirmation; and about 56 more as potentially new species that still need to be described, or new records in the Philippines pending taxonomic review. Pictures, illustrations, species characteristics, and distribution are described for each species in the book. The identification guide could be downloaded from the MWWP website for free.



5.3. SHARKS AND RAYS RESCUE AND RESPONSE MANUAL

To assist communities, coastal resource management programs, local government units, and field personnel in conducting a response to shark and ray reports for rescue, salvage or data collection, the Philippine Aquatic Wildlife Rescue and Response Manual Series: Shark and Rays was published by the DA-BFAR. The main content outlines step-by-step, illustrated, and easy to follow procedures to be used by immediate responders at the report site, including necropsy and data collection procedures. This manual is useful in responses to strandings, directed fishery, or bycatch reports. The manual could be downloaded from the MWWP website for free.



5.4. 2020 CONSERVATION ROADMAP FOR SHARKS AND RAYS IN THE PHILIPPINES

In early 2017, an interdisciplinary, multi-stakeholder group of over 40 people gathered in Quezon City to develop the 2020 Conservation Roadmap for Sharks and Rays in the Philippines (2020 Roadmap). The participants discussed the opportunities and challenges to lay out a plan to conserve sharks and rays in the country. Bringing a diverse group together strategically ensures that the roadmap will be supported by commitments and enforceable legislation.

The 2020 Roadmap is expected to propel shark and ray conservation forward in the Philippines, in hope of finding the balance between human needs and the integrity of the Philippine marine ecosystem. The 2020 Roadmap could be downloaded from the MWWP website for free.





6. LOCAL CASE STUDIES

6.1. ESTABLISHING THE WHALE SHARKS TOURISM INDUSTRY OF DONSOL

In the waters of Donsol, Sorsogon, an aggregation of feeding whale sharks is seasonally present, usually from December to May. The town took the opportunity to develop whale shark tourism interaction, a first in the Philippines. This led to the issuance of Municipal Ordinance No. 12 series of 1998, which protects whale sharks and establishes Donsol's waters as a sanctuary for this species. It also mandates the local government to operate, control, and manage the community-based ecotourism project and activities. The conservation program and tourism development were supported by World Wide Fund for Nature (WWF) Philippines by providing the community inputs needed for the program's sustainability.

This situation showed the potential for tourism with the threat of whale shark fishery. It also pushed the Philippine government to issue FAO 193. The whale shark has become an iconic species for the Philippines, and has even gained a spot in the 100-peso bill. Donsol has become one of the best practices in sustainable tourism management in the world, with economic benefits that led to changing the status of the town from a 5th class municipality to 3rd class.

6.2. FULL PROTECTION OF ALL SHARK AND RAY SPECIES IN THE ISLAND OF CEBU

In 2015, the Provincial Government of Cebu amended its Fisheries and Aquatic Resources Ordinance (PB 2012-05) to include the protection of all shark and ray species in its jurisdiction. Section 4 states a prohibition on "fishing or taking, possessing, transporting, dealing, selling or disposing of any shark species to include body parts and derivatives thereof" (PB 2015-21).

This marked the first legislation of its kind in the Philippines. The Provincial Government further exhibited commitment by conducting a Market Administrator's Orientation, which involved 53 LGUs, including Cebu City and Lapu-Lapu City; increasing the number of market visits and apprehensions; and creating Oplan Palwis ("fin" in Cebuano), a strategy to strengthen the implementation of the legislation. The momentum in the island picked up: Lapu-Lapu City and Cebu City have passed their own ordinances adopting Section 4 of PB 2015-21, making the entire Cebu island a haven for sharks and rays.

In 2016, the Provincial Government identified the following gaps and challenges in implementation and enforcement: 1) they had not met with key stakeholders for updating of deliverables; 2) there was a high turnover rate of personnel in relevant enforcement agencies; 3) lack of manpower and equipment; and 4) limited capacity for species identification and proper documentation.

6.3. DECLARING THE PHILIPPINES' FIRST SHARK AND RAY SANCTUARY IN DAANBANTAYAN

Monad Shoal, a dive site in Daanbantayan, Cebu, is known to be the only place in the world so far where thresher sharks can be seen almost daily. Studies conducted by the Thresher Shark Research and Conservation Project estimate that approximately 80% of its municipal economy is fuelled by the scuba diving industry built around the presence of the thresher sharks, providing employment and supporting livelihoods of the local community and its neighboring municipalities. Bamboo sharks, blacktip sharks, devil rays, eagle rays, and manta rays can also be found in Daanbantayan's municipal waters. Resident whitetip sharks can be found in the dive site called Gato Island.

Through Executive Order 16-2015 Engineer Augusto Corro, the Municipal Mayor of Daanbantayan from 2013-2016, designated Monad Shoal and Gato Island as shark and ray sanctuaries, which prohibits the catching and trading of all shark and ray species within these waters. It was the first local legislation that used the term "shark sanctuary."

6.4. LACK OF SOCIAL PREPARATION FOR THE PROTECTION OF MOBULA RAYS

Lack of social preparation prior to the implementation of Section 102(b) of the RA 10654, with the listing of all Mobulid rays in the CITES Appendices in 2017, caused confusion and upheaval in a fishing community in Bunga Mar, Jagna, Bohol. Fishers in this community have relied on the seasonal catch of manta and mobula rays, collectively called Mobulids, for more than 100 years. The implementation of the ban caught all on the ground unprepared.

More than 200 fishers, fish processors, buyers, laborers, and their families were affected. With no alternative income sources ready, many community members who lost a major income source went into debt in order to provide for their family's daily needs. In keeping them out of the decisions, LGU officials and other community leaders felt excluded, adding to the heightened tensions. Steps were taken to ensure the community received socioeconomic assistance.

The situation in Jagna shows that communities that will be largely affected by any policy must be informed and involved with its planning and implementation. In addition, such situations make it difficult for researchers to gather data and information on fisheries.



LEGISLATIVE GUIDEBOOK

PART II



The Legislative Guidebook section provides guidance for LGUs to develop their own shark conservation legislation. This section begins with types of government action that can be applied, followed by the five main sections: (i) a **preparatory guide** to determine whether a shark policy is needed; (ii) a **decision tree** to walk the user through the necessary provisions of an enforceable shark legislation; (iii) a **resource assessment** to identify assets and gaps to strengthen the legislation; (iv) **menu of considerations for implementation**, which has recommended responses or provisions for specific situations/scenarios; and (v) **templates of legislative options**.

If no shark conservation legislation is in place, users must start with the preparatory guide. If there is already one, they may proceed to the decision tree.



1. TYPES OF GOVERNMENT ACTION

Resolution: A resolution states a formal position. It is often for ceremonial purposes and is not legally binding, but it can serve as a tool to support or oppose issues and matters at hand.

EXAMPLE: Provincial Resolution to support listing of thresher sharks in CITES

In September 2016, the Cebu Provincial Government called on the Philippine delegation to the CITES to support the listing of thresher sharks on Appendix II through the issuance of Provincial Resolution No. 2014-15.

Executive Order (EO): An EO is issued by the local executive (i.e., President, governor, or mayor). An EO carries legal impact and must be in line with existing national laws or fulfil a gap not yet covered by a national law. It may become invalid if the succeeding local executive decides not to adopt it or pass one that contradicts it.

EXAMPLE: City Ordinance to Protect Sharks

Through Executive Order 16-2015, Engineer Augusto Corro, the Municipal Mayor of Daanbantayan from 2013-2016, designated the world-renowned dive sites of Monad Shoal and Gato Island as shark and ray sanctuaries, which prohibits the catching and trading of all shark and ray species within these waters.

Memorandum: A memorandum is issued by the local executive (i.e., President, governor, mayor) or head of an agency (Director or Secretary). It may be to issue a directive, or advise an action or interpretation of a policy.

Ordinance: An ordinance is used to designate a local law of an administrative unit (i.e., provincial, municipal, city, barangay). An ordinance must always be in line with existing national laws, or fulfil a gap not yet covered by a national law.

EXAMPLE

In July 2018, the Cebu City government passed City Ordinance 2496, "An Ordinance Granting Protection to Any Species of Sharks, Rays, and Chimaeras, including Body Parts and its Derivatives Within the Territorial Jurisdiction of the City of Cebu, Proving for its Penalties Thereof."



2. STEP BY STEP GUIDE

Step 1. Preparatory Questions

The purpose of this preparatory guide is to determine if sharks are exploited in an area, the level of the community’s awareness, and their perception of sharks in order to come up with an informed and data driven local policy.

Preparatory Guide Questions	Qualifying Answers	Issues to address	
Have you seen or encountered sharks and/ or rays (dead or alive) in your site?	YES	Fishery	Directed or incidental catch?
		Fish landing site	Was it caught in your area or caught elsewhere?
		Public market	Are these from local catch or were brought to the local market from elsewhere?
		Restaurants and eateries	Where does the supply comes from
		Household meals	Is it part of the local cuisine or introduced?
		In the water	Is there regulated tourism interaction? Why are the sharks there?
		In an aquarium	In a public aquarium, pet shop, private homes?
	NO		

Preparatory Guide Questions	Qualifying Answers		Issues to address
Do you have sources of information about sharks?	YES	Scientific or Academic papers	What are the sources?
		Media	How are sharks depicted in them?
		Coastal Resource Management	Are shark resources considered in management?
		Personal Experience	Is this through tourism, local customs and culture, or fishery-related business?
	NO		
Do you think sharks/rays are important to your community?	YES	Commercial Fishery	Which companies? What are they used for?
		Municipal Fishery	How are they utilized/used?
		Tourism	What are activities are conducted with sharks?
		Ecological	In what ways do you benefit from this?
		Cultural	In what way is this important?
	NO	If present, why not?	Is there a negative image of sharks?
Are sharks utilized in your community?	YES	Alive	Tourism (non-consumptive)
			Meat
		Dead	Fins
			Liver
			Skin
			Jaws
			Teeth
			Cartilage
			Intestines
			Tail
NO	If present, why not?		

Preparatory Guide Questions	Qualifying Answers		Issues to address
Are there other threats to the marine environment in your area?	YES	Solid waste	Where does this occur? Are shark habitats affected?
		Siltation	
		Dynamite fishing	
		Mangrove deforestation	
		Chemical pollution	
		Land reclamation	
		Sand mining	
	No		

A policy is needed if the population of sharks are present in the area and are utilized (YES answers) with no regulations in place. It may not be needed if they are not threatened (NO answers). If you need legislation on shark conservation, proceed to the Decision Tree.

Step 2. Policy Decision Tree

The Decision Tree (found in the next spread) is intended to guide the user to develop an enforceable ordinance for shark conservation. It identifies what requirements are needed, and the recommended action steps.

Is there an existing legislation for the protection and conservation of sharks?

YES

Is there proper implementation of the legislation?

What are the indicators of a properly implemented legislation?

1. Legislation based on best available science
2. All objectives of the legislation are met
3. Active participation of key stakeholders
4. Clear management and enforcement board in place
5. Regular review of the provisions

YES

NO

ACTION STEP: Refer to the Capacity Assessment on PAGE 40 to identify gaps for amending existing legislation.

ACTION STEP: Refer to the Research Capacity Assessment Section on PAGE 40

What scientific data are needed?

Species inventory and population identity

Habitat utilization and movement

Fisheries data (if shark fisheries is present) supply chain (e.g., utilization, target market, pricing, catch data)

Shark tourism data (if shark tourism is present)

Socio-economic profile of dependent communities

NO

What are the requirements for crafting an legislation?

1

Scientific Data*

Is scientific data available?

Yes

ACTION STEP: Complete requirement 2, 3 and 4 to proceed with the crafting of the legislation

No

ACTION STEP: Recommend research (refer to data needed for research directions)

Yes, but deficient

ACTION STEP: Recommend research (refer to data needed for research directions)

2

Legislative point person to sponsor the passing of the legislation

Is there a point person within the legislative branch available to champion the ordinance?

3

Stakeholders that will provide input on the importance and viability of the legislation

Have you identified experts to support the viability of the legislation?

ACTION STEP: See Community Engagement Capacity Assessment on PAGE 42

4

Public Support

Does the local community support shark conservation?

Yes

ACTION STEP: Complete requirement 1,2 and 3 to proceed with the crafting of the legislation (See Community Engagement Capacity Assessment on PAGE 42)

No

ACTION STEP: Do public outreach, consultation, and IEC programs for awareness. (See Communication Capacity Assessment, on PAGE 41)

5

Enforcement

Are you able to enforce this legislation?

Yes

No

ACTION STEP: See Governance Capacity Assessment on PAGE 43)

Step 3. Capacity Assessment

If the Decision Tree's Action Points led you to the Resource Assessment, proceed to the specific pillars. This section will help the user assess gaps and strengths in terms of what you have, do not have, and the status of capacity based on the four (4) pillars of the 2020 Roadmap: Research, Communication, Community Engagement, and Governance.

RESEARCH

The information needed for an effective legislation are the following. The information will aid the user to determine the best form of legislation:

Information Needed	Status (None, Sufficient, Complete)
Species inventory and population identity	
Life history of shark species present	
Habitat utilization and movement	
Fisheries data supply chain	
Data on shark tourism activities	
Socio-economic profile of dependent communities	
Other	

COMMUNICATION

The Communication Pillar falls under Action Step, “Do public outreach, consultation, and IEC programs for awareness.” Communication is a key component of passing and enforcing a shark conservation legislation.

IEC Materials: This SSNP provides access to existing information, education and communication (IEC) materials, tailored specifically to the Philippine audience. The user may review the materials and place a checkmark beside the material that will be used for the IEC activities. This can also serve as a checklist to be reviewed prior to an IEC activity to ensure that all materials are brought to the site. **These materials could be downloaded from the MWWP website for free.**

IEC Materials	
Resources	Status
PowerPoint Presentation & Flyer - Biology of Sharks	
Poster - Protected Species	
Book - Rescue and Response Manual	
Book - Pating Ka Ba?	
PowerPoint Presentation - 2020 Roadmap	
Videos – Sharkada On the Move	
Videos – 2020 Roadmap	
Videos – Whip-tailed Thresher Sharks Help Island Recover After Typhoon	
Sharkada icons for shirts, stickers, and other merchandise	

IEC Personnel: The personnel identified in the table below are possible pointpersons for IEC activities. Several rows were left blank in case there are local champions that may be tapped for IEC activities.

IEC Personnel		
Resources	Status	Action Point
Agriculture Office		
Environment and Natural Resources Office		
Veterinary Office		
NGOs and other civil society organizations		
Teachers/Educators		
Other		

COMMUNITY ENGAGEMENT

Stakeholder support is beneficial in the passage of a bill. It is also necessary to consider the impact of the provisions to the range of stakeholders. This section is a form of stakeholder mapping to determine which stakeholders are relevant to the legislation.

Below are some examples of stakeholders that may be present in your community. Several rows were left blank to allow the user to identify other relevant stakeholders. Use the guide below to indicate your perception of their status of support and level of influence.

Status:
 Support: **Y** Oppose: **N**
 Neutral: **-** Not Applicable: **NA** Unknown / No data (?): **?**

Level of Influence: High: **↑** Neutral: **↔** Low: **↓**

	STAKEHOLDER	STATUS OF SUPPORT	LEVEL OF INFLUENCE
People's Organizations	Fisheries associations		
	Non-government, or civil society organizations		
	Indigenous groups		
	Church/religious groups		
	women's groups		
Local Government Offices	Sangguniang Bayan		
	Office of the Mayor		
	Office of the Vice-Mayor		
	MAO		
Industries	Restaurants/eateries		
	Tourism facility (resorts, hotels)		
	Cosmetic companies		
	Pharmaceutical companies		
	Furniture companies		
	Traders		
	Souvenir manufacturers and shops		

If the answer is Y and level of influence is HIGH, you may reach out to them as resource speakers during legislative hearings or invite them to write statements of support. If the answer is N and the level of influence is HIGH, you may reach out to them, learn about their concerns, and address them in the legislation.

GOVERNANCE

The following section helps the user assess the capacity, tools, and equipment at hand. This can lead the user to determine what additional training or resources are needed.

Enforcement Capacity	Status (No ; Yes, sometimes ; Yes, always)
Enforcement agencies are involved and active.	
Issues of non-compliance are addressed.	
Apprehensions lead to prosecution.	
Enforcers can identify and differentiate protected and non-protected species.	
Other	

Enforcement Assets Assessment	Status (Available ; Available but Needs Improvement ; Unavailable)
Vessel patrol	
Onboard observers	
Inspection in ports	
Landing Sites	
Catch Documentation	
Electronic Monitoring systems	
Funding for enforcement and monitoring	
Funding for capacity-building	
Other	

Step 4. Menu of Considerations for Implementation

The section found on the next spread offers a menu of considerations for scenarios or situations that involve protected and not protected species. It recommends responses for management schemes for species that are **protected** and those that are **not protected**. The recommended basis for the status of a species can be based on the Global IUCN status if a national status is unavailable.

PROTECTED SPECIES

- Endangered
- Critically Endangered
- Vulnerable
- CMS Appendix listed
- CITES Appendix listed
- Species of special importance (Tourism)

NOT PROTECTED SPECIES

- Least Concern
- Near Threatened
- NDF positive

UNDETERMINED SPECIES

- Undescribed species
- Data Deficient
- Not Evaluated

LEGEND



Allowed



Prohibited



Fins Naturally Attached



Not Applicable

REGULATE

Directive that allows for a management scheme to be implemented

REPORT

Incident shall be reported directly to BFAR

TURN-OVER

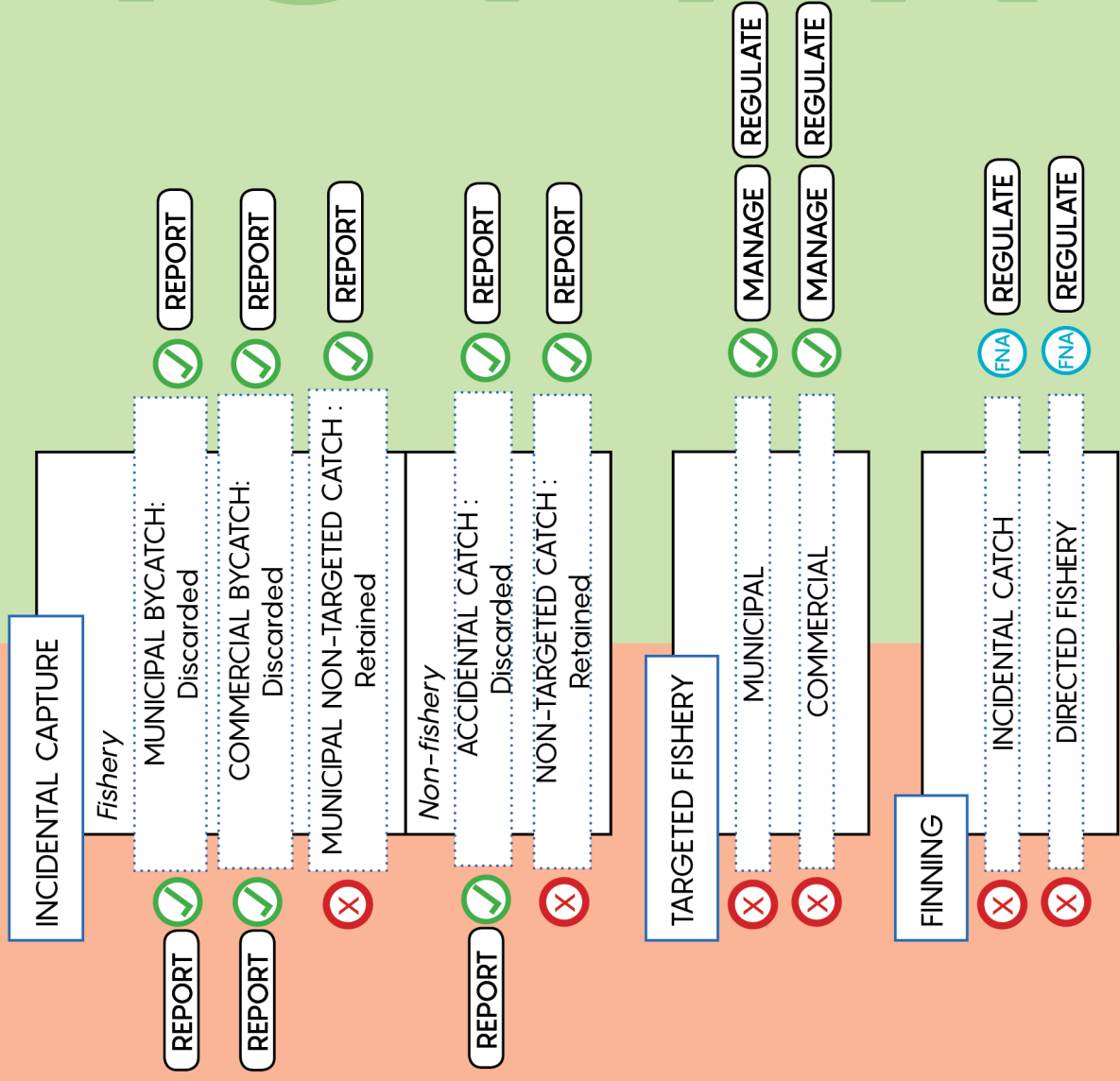
Specimen shall be surrendered to the BFAR for proper disposition

MANAGE

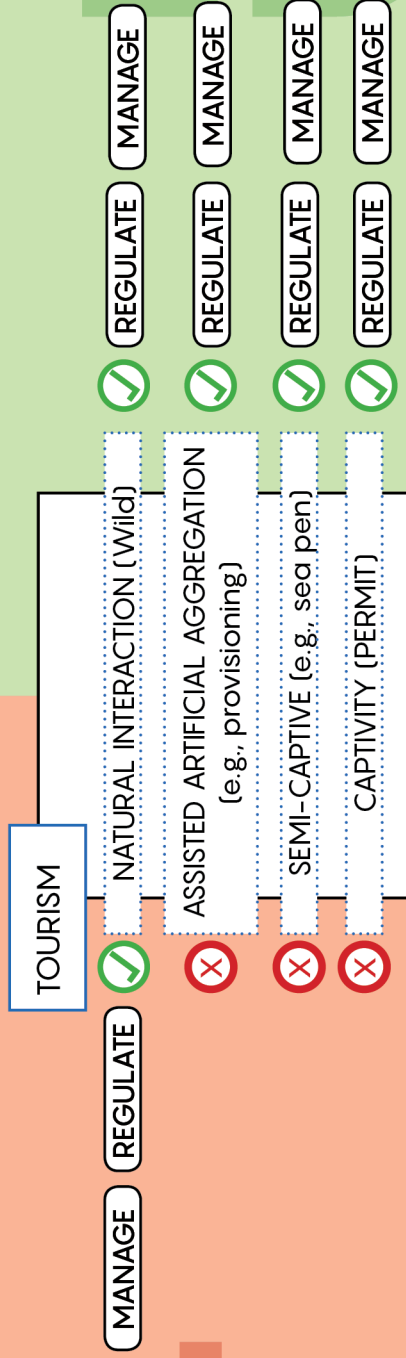
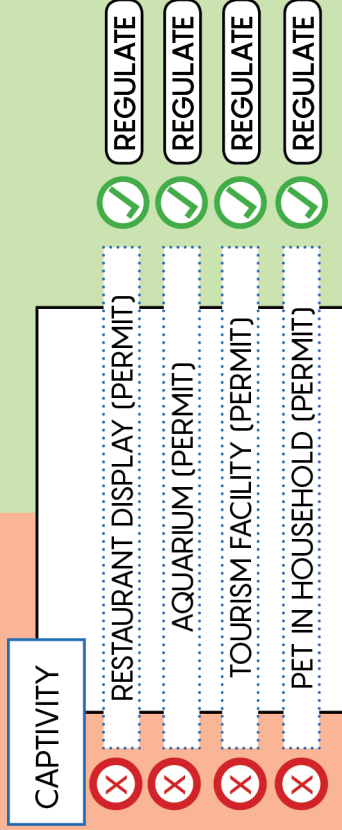
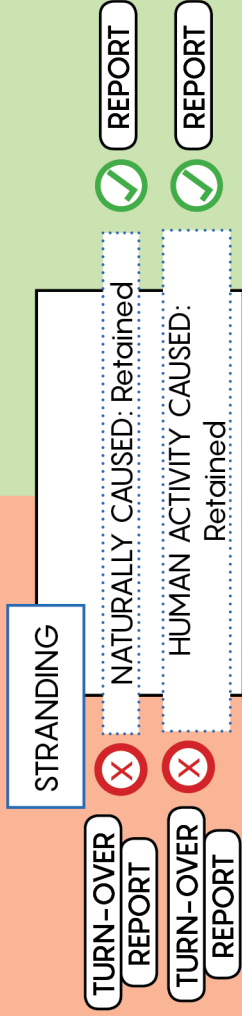
Monitor and control of activities affecting the species including access and technical measures

NOT PRO

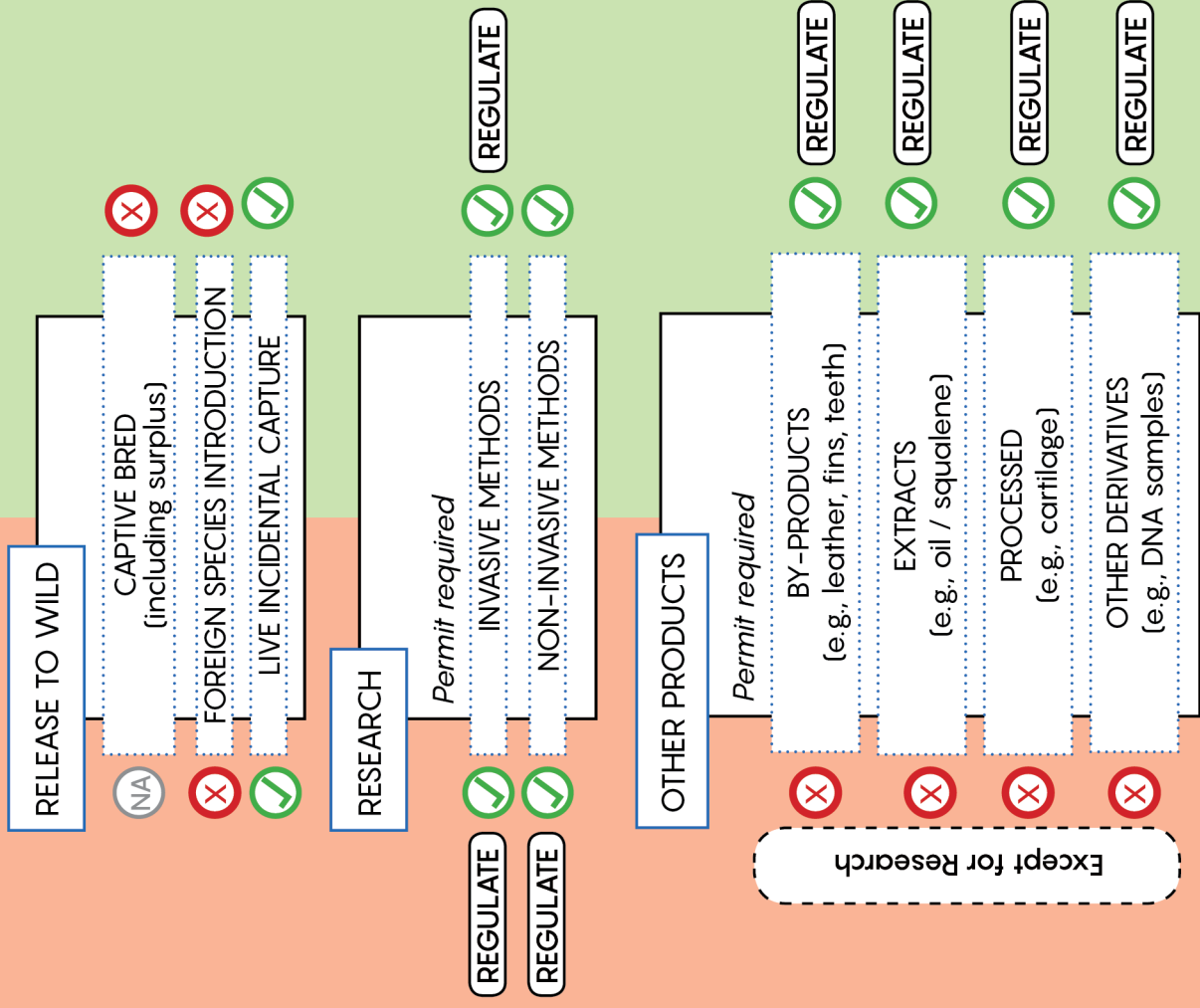
DEFINITION



REPORT



OTFCTED





3. SHARK CONSERVATION POLICY TEMPLATES

SHARK SANCTUARY (Executive Order)

This legislation became the first of its kind by protecting sharks and rays in specific areas within municipal waters.

DECLARING MONAD SHOAL AND GATO ISLAND AS A SHARK AND RAY SANCTUARY AND ESTABLISHING SUPPORTING MECHANISMS FOR ITS IMPLEMENTATION

WHEREAS, Daanbantayan is a Marine Key Biodiversity Area known for its abundant coastal and marine resources with at least 4 species of sharks and 6 species of rays;

WHEREAS, Monad Shoal provides a habitat that supports cleaning services essential to the life strategies of local marine fauna and megafauna;

WHEREAS, Gato Island is a hotspot of biodiversity due to the unique oceanographic conditions that are generated by the convergence of the Visayas Sea, Tañon Strait, Camotes Sea, and Biliran Strait;

WHEREAS, current data suggests that the population of the thresher sharks (*Alopias pelagicus*) in Daanbantayan's municipal waters comprises a meta population with potential small population issues such as inbreeding depression;

WHEREAS, current data shows that thresher sharks make trans-boundary movement between the municipal waters of the Provinces of Cebu and Leyte;

WHEREAS, in recent years, sharks and rays have gained commercial importance and are increasingly targeted for their meat, skin, cartilage, teeth, jaws, liver, and other body parts;

WHEREAS, it has been estimated that shark tourism accounts for approximately eighty percent (80%) of the municipal economy, providing employment and supporting livelihoods of communities in Daanbantayan and its neighboring municipalities;

WHEREAS, Republic Act 7160, the Local Government Code, specifically grants the power and the duty for local government units to ensure the welfare of the people, maintain ecological balance and enforce laws for the protection of the environment, including wildlife;

NOW THEREFORE, I, Engr. Augusto D. Corro, Municipal Mayor of the Municipality of Daanbantayan, Province of Cebu, by virtue of the powers vested in me by law, do hereby declare Monad Shoal and Gato Island as a Shark and Ray Sanctuary, to wit.

SECTION 1. Short Title. — "Monad Shoal and Gato Island Shark and Ray Sanctuary."

SECTION 2. Declaration of Policy. — It shall be the declared policy to ensure the protection and conservation of the globally significant economic, biological, sociocultural, educational, and scientific values of Monad Shoal and Gato Island into perpetuity for the enjoyment of present and future generations. These shall be pursued by managing the Monad Shoal and Gato Island Shark and Ray Sanctuary under a “no-take” policy and through a sustainable and participatory management, taking into consideration all applicable laws and international conventions to which the Philippines is a signatory.

Finally, it shall be the policy of the Municipality to encourage the participation of the private sector and the local government units in the protection, preservation and promotion of the Monad Shoal and Gato Island Shark and Ray Sanctuary.

SECTION 3. Implementation of the Monad Shoal and Gato Island Shark and Ray Sanctuary. The implementation of the Shark and Ray Sanctuary shall take into account the following elements:

- a. an interagency, multi-sectoral mechanism to coordinate the efforts of different agencies, sectors and administrative levels;
- b. coastal strategies and action plans that provide a long term vision and strategy for sustainable development of the coastal area, and a fixed term programme of actions for addressing priority issues and concerns;
- c. public awareness programmes to increase the level of understanding of, and appreciation for, the coastal and marine resources of the area, and to promote a shared responsibility among stakeholders in the planning and enforcement of the sanctuary;
- d. mainstreaming the Shark and Ray Sanctuary into the local government’s planning and socio-economic development programmes and allocating adequate financial and human resources for implementation;
- e. capacity building programmes to enhance required human resource skills, scientific input to policy and planning processes, and enforcement mechanisms to ensure compliance with adopted rules and regulations;
- f. integrated environmental monitoring for the purpose of measuring the status, progress and impacts of management programmes against sustainable development indicators, as may be established, and for use in decision-making, public awareness, and performance evaluation; and
- g. investment opportunities and sustainable financing mechanisms for environmental protection and improvement and resource conservation. For this purpose, the LGU may seek financial assistance from any source and may receive any donation therefore.

SECTION 4. Supporting Mechanisms and Activities — The following activities shall be undertaken in support of the implementation of Shark and Ray sanctuary:

- a. Conservation Education. The Department of Education shall integrate environmental conservation education into the primary and secondary education curriculum and/or subjects (i.e. Science, Biology, Sibika, History, among others), including textbooks, primers and other educational materials, basic principles and concepts of conservation, protection and management of marine resources;
- b. Coastal Resource Management (CRM) and Coastal Law Enforcement (CLE) Training Programmes for LGUs. DENR, BFAR, DepEd, DOT, and DILG, building upon existing CRM and CLE expertise and experiences, shall develop and provide CRM and CLE training programs to the LGU's barangays;
- c. Scientific Surveys. BFAR and the LGU shall work with local and international academics and their associated institutions to undertake scientific studies to inform policies and other programs.

SECTION 5. Establishment of Management Board — The management and administration of the Monad Shoal and Gato Island Shark and Ray Sanctuary shall be vested with a Management Board, and shall be consultative and participatory. The Management Board shall have representatives from public and private organizations.

SECTION 6. Appropriation — The LGU shall allocate adequate funds for the development and implementation of the Monad Shoal and Gato Island Shark and Ray Sanctuary from their existing budgets.

SECTION 7. Implementing Rules and Regulations — The MAO, in coordination with the MTO, MENRO, and Management Board, shall issue the implementing rules and regulations for its effective implementation within ninety (90) days after the effectivity of this Executive Order.

SECTION 8. Separability Clause. — If, for any reason, any section or provision of this Order is held unconstitutional or invalid, the other sections or provisions hereof shall not be affected thereby and shall continue to be in full force and effect.

SECTION 9. Repealing Clause. — All municipal ordinances in the municipality inconsistent with the provisions of this Order are hereby repealed or modified accordingly.

SECTION 10. Effectivity. — This Act shall take effect fifteen (15) days from its publication in at least two (2) local newspaper of general circulation.

Done in the Municipality of Daanbantayan, this 21st day of May, in the year of Our Lord, Two Thousand and Six.

Approved,

HON. AUGUSTO CORRO
 Mayor
 Municipality of Daanbantayan

SPECIES-SPECIFIC PROTECTION (Proposed to BFAR as an FAO in 2011)

This legislation did not pass but protection of thresher sharks ensued after their listing in CITES Appendix II, affording them national protection.

BAN ON THE TAKING OR CATCHING, TRADING, POSSESSING, AND TRANSPORTING OF THRESHER SHARKS AND THEIR DERIVATIVES AND BY-PRODUCTS

WHEREAS, the 1987 Constitution mandates that “[t]he state shall protect and advance the right of people to a balanced and healthful ecology in accord with the rhythm and harmony of nature”;

WHEREAS, the 1987 Constitution mandates the state to “protect the nation’s marine wealth in its archipelagic waters, territorial sea, and exclusive economic zone”, such wealth being an essential aspect of our national patrimony;

WHEREAS, under Section 2 of R.A. 8550, it is a declared the policy of the State to achieve the “[c]onservation, protection and sustained management of the country’s fishery and aquatic resources”;

WHEREAS, under R.A. 9147 or the Wildlife Resources Conservation and Protection Act provides that, “[i]t shall be the policy of the State to conserve the country’s wildlife resources, their habitats for sustainability,” and shall work towards the initiate scientific studies towards enhancement of biological diversity;

WHEREAS, the state-adopted policy on protecting and conserving biodiversity under E.O. No. 578 extends to all the components such as the ecosystems, species and genus;

WHEREAS, the Philippines is a signatory to the United Nations Convention on the Law of the Sea;

WHEREAS, in recent years, sharks have gained commercial importance and are increasingly targeted for their meat, skin, cartilage, teeth, jaws, liver and other internal organs;

WHEREAS, the increased demands for shark and shark products in the past 30 years has led to a considerable number of species becoming threatened with extinction due to a combination of factors including the degradation of habitats important to their life strategies from development and pollution;

WHEREAS, all three species of thresher sharks are classed as Vulnerable by the International Union for the Conservation of Nature and Natural Resources’ Red List;

WHEREAS, thresher sharks mature late and produce few offspring;

WHEREAS, thresher sharks are valuable to Philippine tourism.

SECTION 1. Definition of terms. The terms used herein shall be construed as follows:

By-product or derivatives—means any part taken or substance extracted from wildlife, in raw or in processed form. This includes stuffed animals and herbarium specimens.

Captivity—means to confine to a space or limit access to open water, which includes being placed in aquaria, sea pen, and net.

Habitat—means place or environment where species or subspecies naturally occurs or has naturally established its population

Harass—means disruption of ecological integrity and natural behavior, movement, and reproduction, which includes feeding, touching, and blocking the path

Thresher shark—The thresher shark (i.e., *Alopias pelagicus*, *Alopias superlicious*, *Alopias vulpinus*) are large lamniform sharks of the family Alopiidae found in temperate, subtropical, and tropical oceans of the world. They are best known for their elongated caudal fins.

Trade—means the act of engaging in the exchange, exportation, re-exportation, importation, transportation, purchase, or sale of thresher sharks, their derivatives or by-products, locally or internationally

Possess—means to have actual or constructive possession or control thereof

SECTION 2. Prohibited Acts. Unless otherwise allowed in accordance with this FAO, it shall be unlawful for any person or entity to willfully and knowingly exploit thresher sharks and their habitats, or undertake the following acts:

- a. killing of thresher sharks, except in the following instances;
 - i. when the thresher shark is afflicted with an incurable communicable disease;
 - ii. when it is deemed necessary to put an end to the misery suffered by the thresher shark;
- b. inflicting injury which cripple and/or impairs the reproductive system of thresher sharks;
- c. trading of thresher sharks, their by-products and/or derivatives;
- d. capturing or possessing thresher sharks, their by-products and derivatives;
- e. harassing or inflicting injury on thresher sharks;
- f. transporting of thresher sharks, their by-products and/or derivatives.

SECTION 3. Stranded and trapped thresher sharks.

- a. Living thresher sharks that have ventured into fish pens, fish cages, fish

traps or other enclosure, or have been included as bycatch, shall be immediately reported and released to the nearest Department of Agriculture (DA) Regional Field Unit or Provincial Fishery Office.

- b. Living thresher sharks that drift to the shore shall be set free after following assessment and release protocol of the DA.
- c. Dead thresher sharks that drift to the shore or have been found dead from fishing activities shall be surrendered to the nearest DA Regional Field Unit or Provincial Fishery Office, as the case may be for proper disposition.

SECTION 4. Penalties for Violations of this Order.

a. Imprisonment of two (2) years and one (1) day to four (4) years and/ or a fine of Twenty Thousand pesos (P20,000.00) to Two Hundred Thousand Pesos (P300,000.00), for illegal acts undertaken under paragraph (a) of section (2) or for failure to release thresher sharks in the incidence of paragraphs (a) and (b) of the immediately preceding section

b. Imprisonment of one (1) year and one (1) day to two (2) years and/ or a fine of Thirty Thousand pesos (P30,000.00) to Two Hundred Thousand Pesos (P200,000.00), for illegal acts undertaken under paragraph (b) of section (2)

c. Imprisonment of six (6) months and one (1) day to one (1) year and/ or a fine of One Thousand pesos (P1,000.00) to One Hundred Thousand Pesos (P100,000.00), for illegal acts undertaken under paragraph (c) of section (2)

d. Imprisonment of six (6) months and one (1) day to one (1) year and/ or a fine of Ten Thousand pesos (P10,000.00) to One Hundred Thousand Pesos (P100,000.00), for illegal acts undertaken under paragraph (d) of section (2)

e. Imprisonment of one (1) month and one (1) day to three (3) months and/ or a fine of Five Thousand pesos (P5,000.00) to Twenty Thousand Pesos (P20,000.00), for illegal acts undertaken under paragraphs (e) and (f) of section (2), or for failure to report any of the incidents listed in the immediately preceding section.

SECTION 5. Declaration of thresher shark habitats as key priority conservation and research areas. - The DENR-PAWB in collaboration with the DA-BFAR and concerned Local Government Units shall identify important habitats of thresher sharks within Philippine waters. These areas shall be prioritized for conservation and research.

SECTION 6. Issuance of Permit to Conduct Research and/or Collect Specimens for Research/Scientific Purposes. The DA Secretary or his duly appointed representative, upon the recommendation of the Director of the BFAR, may issue a Special Permit in favor of any government or private institution, and individual engaged in purely research work on thresher sharks, subject to such terms and conditions as the DA

Secretary, experts, and stakeholders may deem wise to impose. The said agency/ person must furnish the DA of its findings

SECTION 7. Appropriation. The DA and DENR shall allocate a certain amount for the initial implementation of this Order. For the succeeding years, the DA-BFAR shall provide the appropriation of the maintenance and operational cost of the marine sanctuary, which shall be incorporated under the Annual Coastal Resource Management budgetary allocations.

SECTION 8. Information and Education. The DA, DENR, and private and academic institutions, shall undertake a nationwide information and education campaign regarding the protection thresher sharks.

The Provincial Police Offices of thresher shark habitats as declared by Sec. 5 must ensure that all police stations in the Province have a copy of this Order posted in their bulletin boards and that this Order is disseminated and discussed within the local police stations as well as meetings conducted in Barangays.

The League of Municipalities and League of Cities of the Philippines shall ensure that all members implement this Order in their respective territories and ensure that all MAOs, fisheries officers, Barangay leaders, veterinarians, agriculturists and Bantay Dagat members are fully aware of this Order.

SECTION 9. Repealing Clause. All existing administrative orders, rules and regulations which are inconsistent with the provisions of this Order are hereby repealed.

SECTION 10. Separability Clause. If, for any reason, any section or provision of this Order is held unconstitutional or invalid, the other sections or provisions hereof shall not be affected thereby and shall continue to be in full force and effect.

SECTION 11. Effectivity. This Order shall take effect fifteen (15) days after its publication in the Official Gazette and/or in two (2) newspapers of general circulation.

TOTAL BAN ON ALL SPECIES (City Ordinance)

Cebu City was the last LGU in Cebu Province to pass a legislation protecting all sharks and rays, making all municipal waters in the province a haven for sharks and rays.

PROHIBITING THE FISHING OR TAKING, POSSESSING, TRANSPORTING, DEALING, SELLING OR DISPOSING OF ANY SHARKS, RAYS, AND CHIMAERAS SPECIES INCLUDING BODY PARTS AND DERIVATIVES THEREOF, WITHIN THE TERRITORIAL JURISDICTION OF THE CITY AND IMPOSING APPROPRIATE PENALTIES IN VIOLATION THEREOF.

Whereas, driven by an annual trade value of \$1bn, about 100 million sharks are killed every year, thanks to overfishing, and finning. The global shark population is experiencing an unprecedented decline, and are now among the most threatened creatures on the planet;

Whereas, Sharks represents the very problem our oceans are facing, as an apex predator, it maintains marine ecosystem balance by preying on the sick and the weak members of their prey populations thereby preventing the spread of diseases and prevent an outbreak that could be devastating;

Whereas, Shark populations easily succumb to fishing pressure as these cartilaginous fishes reproduce slowly compared to their bony-fish counterparts. This makes their population vulnerable to depletion. Full protection and regulation of trade will ensure that at least some threatened species are conserved, both locally and internationally;

Whereas, Cebu City is an important landing and trading areas for fish and other fisheries product coming from Mindanao and Visayas, and plays a crucial and critical role in the overall conservation of all sharks species;

Whereas, it is also important for the National Government to pass a comprehensive policy to protect, conserve, and sustainably utilize all sharks, rays, and chimaeras species.

Whereas, Republic Act 7160, the Local Government Code, specifically grants the power and duty for local government units to ensure the welfare of the people, maintain ecological balance and enforce laws for the protection of the environment, including wildlife;

Now Therefore, I, Tomas Osmeña, City Mayor of Cebu, by virtue of the powers vested in me by law, do hereby declare the prohibition of fishing or taking, possessing, transporting, dealing, selling or disposing of any sharks, rays, and chimaeras species including body parts and derivatives thereof, within the territorial jurisdiction of the city and imposing appropriate penalties in violation thereof, effective immediately, until assessment of their condition and adequate data are obtained for their full protection and conservation.

SECTION 1. Short Title. — The “Shark and Ray Protection Order.”

SECTION 2. Declaration of Policy. — It is hereby declared the policies of the city to protect environmental rights of the people, promote conservation and ensure sustainable and equitable utilization of its coastal areas, habitats and species, including Sharks and Rays, in conformity with the Constitution, the Philippine Fisheries Code of 1998, the National Wildlife Conservation and Protection Act.

Ensure, for the benefit and enjoyment of the people of Cebu City the judicious and wise utilization, protection, conservation and management on a sustainable basis of its coastal and fishery resources with the necessity of maintaining a sound ecological balance and protecting and enhancing the quality of the environment.
Protect the rights of the small and marginal fishers in the preferential use of communal coastal and fishery resources.

Allow people’s full and active participation in the conservation and management of the coastal and fishery resources and shall promote awareness of sustainable fisheries through appropriate education and training.

Provide full support for sustainable fisheries in the municipal / city waters through appropriate technology and research, adequate financial, production, and marketing assistance, and other services.

Allow the private sector to utilize fishery resources under the basic concept that the grantee, licensee or permitted thereof shall not only be a privileged beneficiary of the city, but also an active participant and partner of the principal government in the management, development, conservation and protection of the fisheries and coastal resources of the municipality.

Promote and adhere to the precautionary principle of conservation, management and exploitation of living coastal and fishery resources in order to assure the sustainable development of the coastal environment. The absence of adequate scientific and technical information should not be used as a reason for postponing or failing to take conservation and management measures.

SECTION 3. Definition of Terms. — For purposes of this Act, the following terms are hereby defined:

a. “Elasmobranchs” are fishes belonging to the Subclass Elasmobranchii under the Class Chondrichthyes which have no bones present in the skeleton but instead have cartilage.

b. “Sharks” are elasmobranchs with cylindrical and streamlined bodies, but could be flattened with 5 to 7 paired gill slits on the side of the head. The pectoral fins are found below the gill slits;

c. “Rays” are elasmobranchs with horizontally flattened bodies, enlarged wing-like pectoral fins fused with the head and are above 5 to 6 gill slits. They are also called batoid fishes;

d. "Conservation" means preservation and sustainable utilization of wildlife and or maintenance, restoration and enhancement of the habitat;

e. "Habitat" means place or environment where species or subspecies naturally occurs or has naturally established its population;

f. "Derivatives" include but not limited to carcass or meat, skin, cartilage, teeth, jaws, liver and other internal organs;

g. "By-products" include but not limited to fin soup, oil, fashion accessories, and other finished products made from of any part of an elasmobranch;

h. "Cause to be caught" means putting direct order of a company or individual to another company or individual to possess, catch, sell, buy, and transport.

i. "Bycatch" refers to the unwanted fish and other marine creatures caught during commercial fishing for a different species.

SECTION 4. Prohibition. It shall be unlawful for any person on entity

a. To catch, cause to be caught, sell, purchase, possess, trade, import or export Sharks and Rays, their derivatives and by-products in Cebu City.

b. To catch, wound or kill Sharks and Rays in the course of catching other species of fish. Elasmobranchs accidentally included in the catch shall be immediately released unharmed in the sea.

c. To dump waste products detrimental to species and their habitat.

d. To engage any form of activities that may alter and/or inhibit the natural behavior, movement, activities of the species of the Sharks and Rays such as foraging, mating, resting, and migrating; and

e. To destroy the natural habitats of Sharks and Rays.

Provided, further, That if the violation is committed by a juridical person or government entity, their officers shall be liable without prejudice to any further liability for violation of any provision of other applicable laws.

SECTION 7. Duties and Responsibilities of Government Agencies in Cebu City

a. City Veterinary Office (MVO)

1. Ensure that all the staff of CVO, City Agriculture Office (CAO) and City Environment and Natural Resources Office (CENRO), their partners and network are familiar with the species of Sharks and Rays found and caught in Cebu City; and

2. Spearhead the development of a City Sharks and Rays rescue, release, and salvage program for stranding, bycatch reports, and confiscation of their carcass or by-products

b. City Agriculture Office (CAO)

1. Spearhead the development of research and database maintenance of Sharks and Rays for the Municipality of City for the purpose of management and protection by coordinating with the Provincial and Municipal Fishery Officer, the National Stock Assessment Program of BFAR, NFRDI, the Bureau of Agricultural Statistics, CVO, and CENRO
2. Organize and implement the appropriate training for the different activities required for the protection of Sharks and Rays
3. Establish areas used as important habitats of Sharks and Rays as municipal sanctuaries
4. Develop a full conservation and recovery plan for Sharks and Rays in the city waters

c. City Environment and Natural Resources Office

1. Form a Sharks and Rays monitoring and surveillance team from within CFARMC; and
2. Spearhead in the development of communication materials to popularize this ordinance.

d. City Attorney's Office

1. Ensure the swift and timely prosecution of violators
2. Spearhead in the development of protocols for evidence collection and preservation as guide to the police and Bantay Dagat

e. Cebu City Police Office

1. Ensure that all police stations in the City has a copy of this Order posted in their bulletin boards
2. Ensure that this ordinance is disseminated and discussed within the police stations as well as pulong pulong conducted in Barangays;
3. Enforce the ordinance through investigation, pursuit, and apprehension of violators; and
4. Ensure prosecution of all violators of this Ordinance.

f. The City Tourism Office

1. Coordinate with the DOT, BFAR, LGU, MENRO, and diving industry to identify habitats and feeding grounds of Sharks and Rays and declare the same as protected tourism estates. Upon the identification of these areas, they shall be promoted for restorative ecotourism.
2. Implement and enforce Sharks and Rays interaction guidelines for tourism activities
3. Promote responsible diving and tourism practices

To eliminate the demand that results in the killing of Sharks and Rays, selling and serving of their derivatives and by-products and menus with reference to their derivatives and by-products shall be strictly prohibited.

SECTION 8. Information and Education. — The CAO, CTO, CENRO, LGU, environmental non-government organizations, private organizations, and academic institutions shall undertake a municipal-wide information and education campaign to make Cebuanos understand the value of Sharks and Rays in the marine ecosystem and tourism.

The CAO, CVO, and CENRO must be familiar with the species of Sharks and Rays found in the City. The Cebu City Police Office must ensure that all police stations have a copy of this Order posted in their bulletin boards and that this Order disseminated and discussed within the police stations as well as meetings of stakeholders conducted in Barangays.

SECTION 9. Implementing Rules and Regulations — The CAO, in coordination with the CTO and CENRO, shall issue, within ninety (90) days after the effectivity of this Act, the rules and regulations for its effective implementation.

SECTION 10. Separability Clause. — If, for any reason, any section or provision of this Order is held unconstitutional or invalid, the other sections or provisions hereof shall not be affected thereby and shall continue to be in full force and effect.

SECTION 11. Repealing Clause. — All municipal ordinances in the municipality inconsistent with the provisions of this Order are hereby repealed or modified accordingly.

SECTION 12. Effectivity. — This Act shall take effect fifteen (15) days from its publication in at least two (2) local newspaper of general circulation.

PROTECTION BASED ON IUCN THREATENED CATEGORY

Unique to Palawan because of the SEP law, protected species were determined using the IUCN and Philippine Redlist Threatened Category, as well as CITES Appendix listing.

APPROVING THE 2014 UPDATED LIST OF TERRESTRIAL AND MARINE WILDLIFE IN PALAWAN AND THEIR CATEGORIES PURSUANT TO REPUBLIC ACT 9147, OTHERWISE KNOWN AS THE WILDLIFE RESOURCES CONSERVATION AND PROTECTION ACT OF 2001

WHEREAS, on July 30, 2001, Republic Act No. 9147, otherwise known as the “Wildlife Resources Conservation and Protection Act of 2001” was enacted to conserve the country’s wildlife resources and their habitats for sustainability;

WHEREAS, Section 4 thereof defined the respective jurisdiction of the Department of Agriculture (DA) and the Department of Environment and Natural Resources (DENR) as implementing agencies over the terrestrial and aquatic species of wildlife in the country and expressly provides that in the Province of Palawan jurisdiction conferred to DENR and DA is vested with the Palawan Council for Sustainable Development (PCSD) pursuant to Republic Act No. 7611;

WHEREAS, Section 22 of RA 9147 provides for the implementing agencies to determine whether any wildlife species or subspecies is threatened, and classify them as critically endangered, endangered, vulnerable or other accepted categories based on the best scientific data and with due regard to internationally accepted criteria;

WHEREAS, Section 22 further provides that the categorized threatened wildlife reviewed and published shall be updated regularly or as the need arises. Provided, that a species listed as threatened shall not be removed therefrom within 3 years following its initial listing;

WHEREAS, in the special meeting on 12 September 2003 the PCSD passed Resolution No. 03-216, approving the joint DENR-DA-PCSD Administrative Order No. 1 entitled “Joint Implementing Rules and Regulations (IRR) pursuant to Republic 9147”, which is now as PCSD Administrative Order No. 9;

WHEREAS, Rule 4.2 of the aforementioned joint implementing rules and regulations provides that the “PCSD pursuant to RA 7611 and Section 4 of RA 9147 shall exercise jurisdiction over all wildlife species found in the Province of Palawan, in accordance with the paramount objectives stated in RA 7611 to conserve the species and protect their habitats, consistent with existing national policies on wildlife conservation, management and utilization such as, but not limited to Republic Act No. 8550 or the Fisheries Code of 1998, Republic Act No. 8485 or the Animal Welfare Act of 1998, and Republic Act No. 7586 or the NIPAS Act of 1992;

WHEREAS, on February 27, 2004, the PCSD passed Resolution No. 04-226, entitled “Adopting the List of Threatened Terrestrial and Marine Wildlife Species in Palawan and the List of Other Wildlife Species Pursuant to Section 4 and 22 of Republic Act 9147, which list had two (2) consecutive amendments as embodied in PCSD Resolution No. 06-309-A and PCSD Resolution No. 10-413;

WHEREAS, there is a need to update the present list approved under PCSD Resolution No. 10-413 because of the new published version of the Listings of species by the International Union for the Conservation of Nature and Natural Resources (IUCN),

Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and other authorities, both have de-listed or upgraded certain species from their respective listings, as well as added new species assessed to be threatened with extinction at different levels;

WHEREAS, upon research and study of the species in the province of Palawan by several experts and in accordance with the IUCN's new listings of species, an updated list for Palawan was prepared, to wit:

"THE UPDATED LIST OF THREATENED TERRESTRIAL AND MARINE WILDLIFE IN PALAWAN AND THEIR CATEGORIES PURSUANT TO REPUBLIC ACT 9147 or the WILDLIFE ACT" PER PCSD RESOLUTION NO. 15-521 Series of 2015.*

I. CRITICALLY ENDANGERED SPECIES (Including those species listed under CITES Appendix I)

II. ENDANGERED SPECIES (Including those species listed under CITES Appendix II)

III. VULNERABLE

WHEREAS, the Updated List will serve as guide for concerned government agencies, scientific authorities and NGOs, among others, on what species to prioritize in the implementation of wildlife conservation and protection programs;

WHEREAS, the PCSD, being mandated under Republic Act 9147, otherwise known as the Wildlife Resources Conservation and Protection Act, as the CITES Management Authority for Palawan and duly recognized by the CITES Secretariat, shall initiate to undertake the requirements and procedures necessary for elevating and including the species under the "Updated List" to the applicable CITES Appendices to ensure the regulation of trade at the international level;

WHEREAS, the PCSD shall coordinate and work with the Biodiversity Management Bureau of the Department of Environment and Natural Resources (BMB-DENR) regarding the requirements and procedures for consideration of the species under the "Updated List" to the listing of the International Union for the Conservation of Nature and Natural resources (IUCN) to ensure the conservation of said species;

WHEREFORE, in consideration of the foregoing premises and on motion duly seconded, the Council resolves to approve, as it is hereby APPROVED, the "Updated List of Terrestrial and Marine Wildlife in Palawan and Their Categories Pursuant to Republic Act 9147, otherwise known as the Wildlife Resources Conservation and Protection Act of 2001", hereto attached as integral part of this resolution;

RESOLVED FURTHER, that copies of this resolution be furnished the DENR, DA and other concerned agencies for their information and guidance;

RESOLVED FINALLY, that copy of this resolution be filed with the Office of the National Administrative Registrar at the UP Law Center for publication in accordance with existing rules.

ADOPTED AND APPROVED this 26th day of February 2015 at Puerto Princesa City. I hereby certify that the above-quoted resolution has been duly adopted by the PCSD on the 26th day of February 2015.

NELSON P. DEVANADERA
Executive Director/ Secretary

*The complete list with sharks and rays can be found on the PCSD website.



REFERENCES

- 1 Resolution 17/05 On the conservation of sharks caught in association with fisheries managed by IOTC. (2017) <http://www.iotc.org/cmm/resolution-1705-%E2%80%A8on-conservation-sharks-caught-association-fisheries-managed-iotc>. Accessed 13 Jul. 2018.
- 2 UN Sustainable Development Goals. <https://sustainabledevelopment.un.org/?menu=1300>. Accessed 10 Jul. 2018.
- 3 Precautionary approach to fisheries. <http://www.fao.org/docrep/003/w1238e/w1238e01.htm>. Accessed 29 Jun. 2018.
- 4 Kriebel, D. et al. (2001). The precautionary principle in environmental science. *Environmental Health Perspectives*, 109(9), 871–876.
- 5 Greenpeace Philippines. (2014) Roadmap to Recovery of Philippine Oceans. <http://www.greenpeace.org/seasia/ph/press/reports/Roadmap-to-Roadmap-to-Recovery-of-Philippine-Oceans/>. Accessed 25 Jun. 2018.
- 6 International Institute of Rural Reconstruction (1998) Introductory Papers. Participatory Methods in Community-based Coastal Resource Management Volume 1.
- 7 NOAA Fisheries. (2017) Ecosystem-Based Fisheries Management, <https://www.fisheries.noaa.gov/insight/ecosystem-based-fisheries-management>. Accessed 13 Jun. 2018.
- 8 International Commission for the Conservation of Atlantic Tunas. (2017) Highly Migratory Sharks Neglected in ICCAT. https://oceanica.org/sites/default/files/reports/ICCAT_Highly_Migratory_Sharks_English_2.pdf. Accessed 14 Jun 2018.
- 9 "Regional fisheries management organisations - European Commission." https://ec.europa.eu/fisheries/cfp/international/rfmo_en. Accessed 10 Jun. 2018.
- 10 Shark Research Institute. (2013) The First Nationwide Ban on Shark Fishing and the Shark Fin Trade. Newsletter Volume 22. No. 2 <http://www.sharks.org/wp-content/uploads/documents/newsletters/Newsletter-22-2.pdf>. Accessed 28 Jun. 2018.
- 11 Shiffman, D. S. and Hammerschlag, N. (2016), Shark conservation and management policy: a review and primer for non-specialists. *Anim Conserv*, 19: 401-412. doi:10.1111/acv.12265
- 12 The Pew Charitable Trusts. (2016) Reference Points. http://www.pewtrusts.org/~media/assets/2016/09/referencepts_brief_v6.pdf. Accessed 16 Jun. 2018.
- 13 Bhukaswan, T., Management of Asian Reservoir Fisheries. (1980) <http://www.fao.org/docrep/005/AC865E/AC865E05.htm>. Accessed 28 May 2018.
- 14 *Ibid.*
- 15 Valdemarsen, J.W. and Suuronen, P. (2001) Modifying Fishing Gear to Achieve Ecosystem Objectives. <https://community.plu.edu/~econ330/doc/gear-restrictions.pdf>. Accessed 04 Jun. 2018.
- 16 The Pew Charitable Trusts. (2016) Harvest Control Rules. <http://www.pewtrusts.org/en/research-and-analysis/fact-sheets/2016/07/harvest-control-rules>. Accessed 16 Jun. 2018.
- 17 Kelleher, G. (1999) Guidelines for Marine Protected Areas. International Union for the Conservation of Nature. Best Practice Protected Area Guidelines Series No. 3
- 18 Cabral, R. et al. (2014). The Philippine marine protected area (MPA) database. *Philippine Science Letters*. Volume 7. 300-308.
- 19 BFAR-NFRDI. (2017) Sharks and Rays: Philippine Status Report and National Plan of Action 2017-2022. Special Issue Philippine Journal of Fisheries
- 20 Humane Society International. (2013) Fins Naturally Attached. http://www.hsi.org/world/india/news/releases/2013/08/fins_attached_india_082613.html. Accessed 8 Jul 2018.
- 21 Sanctuary Asia. (2015) Ban The Export Of Shark Fins From India. <http://www.sanctuaryasia.com/campaigns/9855-ban-the-export-of-shark-fins-from-india.html>. Accessed 9 Jul. 2018.
- 22 Mundy-Taylor, V., et al. (2014). CITES Nondetriment Findings Guidance for Shark Species. A Framework to assist Authorities in making Non-detriment Findings (NDFs) for species listed in CITES Appendix II. Report prepared for the Germany Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN).



SAVE SHARKS
NETWORK PHILIPPINES

GREENPEACE

