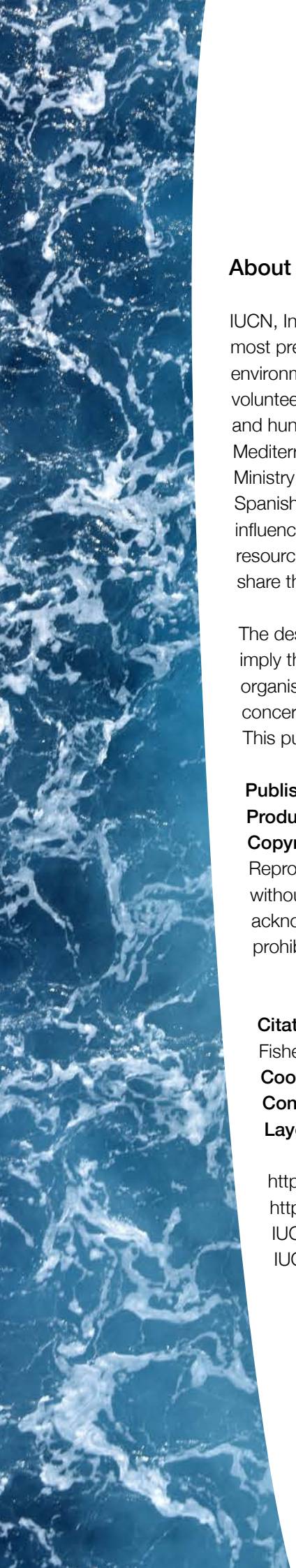
Supporting Guidebook

Policy and Advocacy for Mediterranean Sustainable Fisheries and Biodiversity Conservation

This publication has been funded by the Mava Foundation.



About IUCN Centre tor Mediterranean Cooperation

IUCN, International Union for Conservation of Nature, helps the world find pragmatic solutions to our most pressing environment and development challenges. IUCN is the world's oldest and largest global environmental organization, with more than 1,200 government and NGO members and almost 11,000 volunteer experts in some 160 countries. IUCN's work is supported by over 1,000 staff in 45 offices and hundreds of partners in public, NGO and private sectors around the world. The IUCN Centre for Mediterranean Cooperation was opened in October 2001 with the core support of the Spanish Ministry of Agriculture, Food and Environment, the regional Government of Junta de Andalucía and the Spanish Agency for International Development Cooperation (AECID). The Centre's mission is to influence, encourage and assist Mediterranean societies to conserve and sustainably use the natural resources of the region and work with IUCN members and cooperate with all other agencies that share the objectives of the IUCN.

The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of IUCN or other participating organisations concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.
This publication has been made possible in part from funding from MAVA Foundation.

Published by: IUCN Gland, Malaga
Produced by: IUCN Centre for Mediterranean Cooperation
Copyright: © 2022 IUCN, International Union for Conservation of Nature and Natural Resources
Reproduction of this publication for educational or other non-commercial purposes is authorised without prior written permission from the copyright holder provided the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: IUCN (2022). Supporting Guidebook: Policy and Advocacy for Mediterranean Sustainable Fisheries and Biodiversity Conservation. IUCN, Malaga, Spain. 66pg.
Coordinators: Yaprak Arda, IUCN Centre for Mediterranean Cooperation
Consultants: Anne Walton and Kate Hogg
Layout by: Cisel Turksal

https://www.iucn.org/regions/mediterranean
https://www.iucn.org/
IUCN on Facebook; https://www.facebook.com/iucn.org/
IUCN on Twitter; https://twitter.com/IUCN

CONTENTS

INTRODUCTION ... 06
Developing policy briefs to protect biodiversity and fishing resources

PART 1 BUILDING THE FOUNDATIONS ... 07
Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

- Clearly articulating the issue to build a strong basis for the policy brief ... 07
- Introducing the diagnostic phase ... 09
- The diagnostic phase – unpacking the layers ... 10
  - Layer 1: Evaluating environmental conditions ... 12
  - Layer 2: Evaluating climate impacts ... 15
  - Layer 3: Identifying impacts from the target fishery activities ... 20
  - Layer 4: Identifying impacts from other human use activities ... 30

PART 2 BUILDING THE FOUNDATIONS ... 33
Finding the way from the source of the problem (root cause) to viable, realistic, and effective solutions

- From data collection to issue analysis ... 33
- Conducting an issue analysis ... 34

PART 3 DEVELOPING THE POLICY BRIEF ... 38
Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

- What is a policy brief? ... 38
- Who is the policy brief for? ... 39
- Profiling your audience ... 40
- Steps for building the policy brief ... 44
  - Step 1: The introduction section ... 47
  - Step 2: The approach and results section ... 49
  - Step 3: The conclusions and recommendations section ... 51
  - Step 4: The executive statement ... 53
- Making your policy brief stand out ... 55
  - Headlines and Section Titles ... 55
  - Sidebars ... 56
  - Charts, Photos, Graphics ... 56
- The final step ... 56
- Building a conservation campaign to amplify the message ... 61
  - Identity Campaigning ... 61
  - Story Telling ... 61
  - It's Marketing, Pure and Simple ... 61
- Prologue ... 65

What is the guidebook about?

We have entered a crucial moment to raise ambitions for strategies and implementation in order to protect critical ecosystems, habitats, and species. Implementing effective policy strategies for marine conservation starts by changing perceptions and advocating is a way of impacting perceptions, trying to achieve a goal by persuading authorities and decision makers. In the Mediterranean region, there is a need to leverage the contributions to regional and national policy briefs regarding fisheries and biodiversity, how to advocate on sustainable fisheries and biodiversity policy implementation and integrate conservation and sustainable use of biodiversity in cross-sectoral policies, plans and operations.

The overall objective of this guidebook is to provide users (CSOs, NGOs, fisheries communities, associations, etc.) with the knowledge and tools needed to engage in a process which starts with the early-stage identification of a fisheries-related issue and culminates with the creation and dissemination of a solution-oriented policy brief, as a part of a 3-step process.

- **Part 1** is the diagnostic phase, which introduces readers to: early-stage problem identification; how to evaluate environmental conditions; how to identify impacts on the marine environment linked to climate change, fishing activities, and other marine activities; and how to synthesize the main findings in clear statements.

- **Part 2** focuses on the analysis of the concerning issues and introduces the reader to the steps needed to: analyse in detail the existing governance structures; how to identify and characterise stakeholders; how to define the ideal state and what is needed to reach it; how to identify the root cause of the issue affecting the local marine environment by applying the 3 whys technique; to ultimately identify the best solutions to address the root cause.

- **Part 3**, focuses on the steps needed to develop and put together a policy brief. It introduces the reader to: the need to consider the context in detail before starting to write the brief; getting to know the audience to make sure the brief brings across the messages; what the key elements of a policy brief are and how to put them together; the best strategies to market the brief; and finally, how the brief can be tested to ensure it meets the necessary standards.

Part 1 and 2 therefore builds the foundations of an integrated approach to fisheries and biodiversity conservation, whereas Part 3 focuses on the steps needed to develop a policy brief that addresses the impacts of fisheries on biodiversity.

This guidebook is intended to support marine conservation initiatives that want to address the complex relationship between fisheries management and biodiversity protection - two seemingly contradictory approaches which in fact prove to be complementary to one another. Although the examples used in this guidebook are specific to these topical areas, in practice the process of identifying a fisheries-related issue, developing a diagnostic and analytical approach and producing a policy brief could be applied to a range of subject matters.

The steps of this process, as indicated in the following diagram, can also be applied to many different types of processes for natural resource planning, and can also be useful in planning advocacy campaigns.

3-Part Process Model for Integrating Sustainable Fisheries and Biodiversity Protection Into a Policy Brief

DIAGNOSTIC

- Early Problem Identification for Representative Species / Habitat
- Evaluating Environmental Conditions
- Identifying Impacts from Climate Change
- Identifying Impacts from Fishing Activities
- Identifying Impacts from Other Marine Activities
- Data Synthesis and Declaration of Major Findings

ISSUE ANALYSIS

- Considerations for Existing Governance Structures
- Identification & Characterization Stakeholders
- Defining the Ideal State & What it Will Take to Achieve That
- Root Cause of the Problem Using the "3 Whys"
- Getting to Solutions That Address the Root Cause

DEVELOPING THE POLICY BRIEF

- Context Considerations Before Getting Started
- Getting to Know Your Audience
- Key Elements of a Policy Brief
- Marketing Your Policy Brief for Successful Advocacy
- Testing the Policy Brief to See How It Holds Up

INTRODUCTION

Developing policy briefs to protect biodiversity and fishing resources

The Mediterranean Sea is home to some of the world's richest resources. It represents a unique convergence of complex ecological, economic, and social features. For centuries, the Mediterranean has provided coastal communities with a bounty of living marine resources, which propelled the development of the fishing industry and forged the identity of the dynamic communities that harness the cultural heritage of the region. It is estimated that the Mediterranean fleet counts up to **76,300** vessels, of which approximately 82% are considered Small-Scale Fisheries (SSFs)[1] and 7.9% are trawlers. As a vital contributor to the economy of the region, marine capture fisheries provide direct employment to just under a quarter of a million people (248,000) on-board fishing vessels[2]. Current estimates as of 2020, however, indicate that **75%** of the stocks in the Mediterranean and Black Sea are being fished beyond sustainable limits. And the volume of fishery discards in the Mediterranean is estimated at roughly **230,000** tonnes per year, which represents around 18 percent of the total catch[2].

The dramatic changes, particularly those concerning biodiversity loss and the overall decline in fishing captures witnessed over the last decades confirm the urgent need to apply sustainable mitigation measures in Mediterranean fisheries management.

If Mediterranean marine wildlife and ecosystems as well as fisheries productivity are to be sustained, our society needs to shift towards more sustainable management.

The 2030 Agenda for Sustainable Development underscores the need to recognise sustainable development as multidimensional, requiring balanced policy action across economic, social, and environmental dimensions.

Now more than ever, there is an urgent need to develop strategies to improve the management of marine resources. Likewise, effective policy briefs are key to engage and inspire decision-makers to make change possible. Indeed, organisations working in fisheries and marine conservation have a great responsibility to deliver policy recommendations that can provide mutually reinforcing beneficial outcomes in each of the economic, environmental, and social spheres. There is a general need for long-term policy recommendations that seek to sustain fishery resources and biodiversity while considering social needs and advancing economic development within the fishing sector and beyond for the benefit of current and future generations.

[1] *Small-scale vessels with/out engines using passive gear and polyvalent vessels of less than 12 m length overall.*

[2] *State of Mediterranean and Black Sea Fisheries (SoMFi) 2020. FAO/GFCM.*

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

Before starting to write a policy brief, it is important to follow some key steps, so asto ensure that the issue has been fully understood and can be clearly articulated. The following section outlines a process that can be applied to clearly identify the root cause and address it more appropriately.

The first step is to analyse the process of problem solving, to uncover the different layers and establish which factors may be contributing to the issue and which not. Investing time in building a solid basis for getting to the source of the problem, will avoid jumping to solutions prematurely. The purpose of problem solving (the process of analyzing an issue to identify potential solutions) is to dig deep into the real issue and the root causes, otherwise the final solutions and recommendations put forward in the policy brief will not lead to the needed change. For example, if a policy brief written to improve the protection of sandbar sharks' states that the issue is overfishing, it may be failing to tackle the root cause. It is necessary to reconsider what "overfishing" means and why "overfishing exists". Stating that the actual issue is "overfishing" is a construct and an idea, but it is missing the foundation. To identify a meaningful and lasting solution it is necessary to start from the bottom and build the foundations by giving sufficient time and resources to truly understand the problem.

Clearly articulating the issue to build a strong basis for the policy brief

OBJECTIVE

In this section the focus is on why it is so important to take time to develop a robust problem-solving process before identifying the solution, which will then build the focus of the policy brief.

What is problem solving and why should we take the time to do it?

We are living in world shaped and altered by humans, where biodiversity is in decline and conservation problems are on the rise. Almost all, if not all, of a conservation practitioner's job is focused on solving problems. But given the pressures of modern life, there are often demands to save time and energy by either avoiding decisions or rushing to solutions before taking the time to fully understand the problem being dealt with.

There is often a misconception that the problem is already well known. The reality is that by failing to get to the bottom of the problem, there is a greater risk of applying band-aid solutions, which can make things worse and be as damaging in the long run as the problem that needs solving. Is the solution therefore simply replacing one problem with another?

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

So, what is problem solving?

Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritising, and selecting alternatives for a solution; and implementing a solution. The key to a good problem definition is ensuring that you deal with the real problem – not its symptoms.

Before a problem can be solved, it is necessary to know exactly what needs solving.

Advocacy often fails because we think we know the solution before we have explored the depths of the problem.

TIPS FOR PROBLEM SOLVING

- Don't just rely on the data. Take facts, especially observable ones, into account.
- Consider how the problem statement is being framed. It should present the problem in a way that allows for multiple solutions, and make sure it's based on proven science and/or observable facts - not opinions, judgments, or interpretations.
- Think backwards from the problem to analyse the potential factors that lead to it.
- Keep asking "why" before settling on a conclusion to make sure you investigate root causes.

BOX 1: What are some of the most common reasons why advocacy fails?

- Lack of patience – leading to move through the process too quickly and not building a sound foundation; as well as giving up too soon
- Failing to align with decision-makers' priorities
- Lack of a clear vision of the outcomes of a specific policy and sufficient research suggesting different policy options that account for a multitude of considerations that policy makers are accountable for
- Poorly articulated and implemented advocacy communication planning
- These shortcomings can be compensated by ensuring sufficient preparation and accurate planning.

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

Introducing the diagnostic phase

OBJECTIVE

This section is an introduction to the process for building a strong and realistic foundation that tackles the root cause of a problem to avoid trying to solve a problem prematurely and developing a misinformed policy brief.

- **What might the problem be?**

It is not uncommon to start the search for a solution to a complex problem with some predetermined idea(s) of what the problem may be. However, this is just a starting point and often the "problem" will be redefined, refined, or even completely changed once better understood.

The process of complex problem solving can start by making a first statement of what the problem might be.

For example:
"overfishing is having an impact on biodiversity"

But what does this actually mean?

- **Trying to understand the problem**

It is necessary to try and understand the problem to see whether the first assumption is right or not.

Although it may seem faster to stick with a fast solution, failing to detect the source of the problem means there will be no measures in place to stop the problem from reappearing in the future. Addressing impacts on biodiversity in this way is certainly not the path to take. The fact is, if the root cause of the problem has not been identified, then the problem has not truly been diagnosed.

This also applies to the previous statement about overfishing. Before jumping to any conclusions about how overfishing is impacting biodiversity, the first step is to conduct some similar diagnostics on the setting where the fishery of interest is taking place. Stating that overfishing is the problem doesn't provide very much information at all. First, overfishing of what? Of a specific species? What is causing the overfishing? Who is overfishing? Are there too many boats? Is it a social or economic reason that is driving too many fishers to fish? Is biodiversity also being impacted by land-based pollution or mis-managed development? Is there a problem with the way fisheries are being managed? Is it a problem with enforcement? By stating the problem to be overfishing, the details needed to truly address the problem and arrive at the best solutions are missing.

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

BOX 2: Why is the problem often misdiagnosed?

There are some common obstacles that are in the way of building a sound policy brief which integrates fisheries and biodiversity conservation. What the "problem" is believed to be can often be exacerbated by yet another set of problems that prevent the problem being correctly diagnosed.

For example:

- Fisheries jurisdictional boundaries and marine fish species boundaries may not be aligned.
- Problem diagnosis requires both a local and cross-sectoral focus.
- It is hard to distinguish between natural and human induced impacts.
- In haste, there is a tendency to jump to the solution without taking the time to diagnose the problem.

Except for the last point, the most that can be done to address the above mentioned first three points, is just to be aware of them when trying to get to the root cause of the problem. The fourth point, however, can be addressed, and in fact, will help in being aware of some of the uncertainties associated with the first three points.

It is necessary to address these additional challenges before developing the policy brief, otherwise the end product is an unfocused, poorly articulated, and weak policy brief.

The diagnostic phase – unpacking the layers

OBJECTIVE

In this section the site characterization model is introduced. Working through this enables the writer to define and fully articulate the problem they are wanting to solve. How to place the "problem" within the context of an actual setting is illustrated to better understand all the factors that are relevant to the problem. Tools are provided to diagnose whether the "change" over time is due to environmental factors and not human induced.

BOX 3: Overview of the basic steps in the problem site characterization model the importance of building robust data layers as a foundation of an advocacy plan include:

Layer 1: Evaluating environmental conditions
Layer 2: Evaluating climate impacts
Layer 3: Identifying impacts from the target fishery activities
Layer 4: Identifying impacts from other human use activities

The below model (Handout 1.1) illustrates how to unpack the layers to better understand the problem

HANDOUT 1.1:

Unpacking the Layers to Better Understand the Problem

Fisheries and Biodiversity
CONSERVATION CHALLENGE

a Species Needs
b Climate Impacts
c Fishing Impacts
d Other Impacts
e Governance
f Stakeholders

1

Dismantle the Layers to Unpack the Problems

Place-based mapping and local/scientific knowledge

2

Break It Down Into Smaller Problems

What needs to change to make a difference

3

Reassemble into a New Reality

Transform the problem into a new relationship between fisheries and biodiversity protection by developing solutions that address a realistic picture of the problem through amplification of the good news and intervention in the areas where there is bad news.

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

Layer 1 Evaluating environmental conditions

This is the first step in diagnosing and building a database of information to better understand the problem. The first place to look in the diagnostic phase is the environment where the "species of concern" lives. It is necessary to know and understand what conditions/circumstances/habitats are important to the survival of the species that is to be the subject of the policy brief. This of course will depend on what the representative species is. Throughout this guidebook the sandbar shark population from the Gulf of Gabes, Tunisia is used as an example representative species. This step in the process therefore entails asking: *"what are the conditions that need to be in place for the sandbar shark to survive in the Gulf of Gabes?"*

Consider and evaluate the optimal environmental conditions needed for the representative species/habitat of interest in the policy brief to remain healthy and abundant:

- Note - any unique characteristics of the representative species
- Geography – large enough habitat to move according to the natural patterns
- Healthy Habitat – eat, live, grow, reproduce
- Successful Reproduction – location, timing, number, and body size

EXERCISE 1.1: Characterizing the Setting by Mapping Out the Life History Requirements of the Target Fish Species and Evaluating Optimal Conditions. Worksheet 1.1.

Based on and agreed upon understanding of what the problem is thought to be at this early stage, will first characterize the site by considering the following:

- Early identification of the problem/issue
- Mapping out the life history requirements of the target species (habitat requirements)
- Environmental/seasonal variables
- Condition of habitat
- Climate-driven impacts

OBJECTIVES

1) to start to place the "problem" within the context of an actual setting in order to better understand all the influences relevant to the problem, and 2) to understand whether the "change" over time is due to differences in habitat complexity or environmental factors.

WORKSHEET 1.1:

Mapping Out Optimal Conditions for the Representative Species

What Marine Resources Need to Remain Healthy and Abundant

The following are the four basic needs that are required for marine resources to remain healthy, abundant, and therefore resilient:

a. Healthy Habitat – Habitats are areas that are used by marine species to eat, live, grow, and reproduce. If a habitat used for any one of these functions is damaged, it could have negative impacts on the populations on all species that use that habitat during their life cycles.

b. Large Enough Areas of Habitat – Different species have different movement patterns as adults and as larvae. In order to grow into large adults that successfully reproduce in the long term, marine species need a large enough area of habitat to move according to their natural patterns.

c. Successful Reproduction – If a species cannot successfully grow into adults and reproduce, the population will decline over time. If babies or juveniles are removed before they become reproductive adults, there will not be any reproduction to maintain population numbers.

d. Adaptive Capacity in Regards to Climate Change – Depending on the nature of the climate impact(s), different species (and their corresponding habitats) will respond differently to the impacts of climate change. The intensity of the climate event(s), the frequency of the climate event(s), and the sensitivity of the representative species all play into this adaptive capacity of the representative species.

EXERCISE 1.1:

Assessing Optimal Environmental Conditions for the Representative Species

1- Your Representative Species (indicator of biodiversity for the system you are working in, that you believe is impacted by fishing and/or other activities):

2- Problem Statement (what you believe the problem is in terms of the status of the species and what is creating the problem):

YOUR RPERESENTATIVE SPECIES' REQUIREMENTS		LIST SPECIFIC ENVIRONMENTAL NEEDS	CONDITION OF THESE ENVIRONMENTAL NEEDS	WHAT NEEDS TO CHANGE FOR THIS REQUIREMENT TO SUPPORT YOU SPECIES
3- What kind of healthy habitat(s) are necessary for your representative species to eat, grow and reproduce?	a			
	b			
	c			
4- Are there large enough areas of this habitat to accommodate the movement patterns of this species throughout their life history?	a			
	b			
	c			
5- What is needed for the reproductive success of this species?	a			
	b			
	c			

CLIMATE IMPACTS (note: these are already occurring in the Mediterranean)	INTENSITY OF IMPACT	FREQUENCY OF EVENT	SENSITIVITY OF SPECIES TO IMPACT	DESCRIBE THE RESULTS OF THE IMPACT (how is it affecting the health of this species or the conditions it is dependent on)
6- Warming waters				
7- Rising sea levels				
8- Invasive species				
9- Jellyfish blooms				
10- Changes in salinity				

Worksheet 1.1b: is populated with information about sandbar sharks as a reference guide to help with the completion of 1.1a. The worksheet provides a system for capturing the data layer. The first step is to write down your early-stage problem statement. Then note any unique life history characteristics of the representative species. It is important to select a specific geographic range so that the problems, aka impacts, are identified, that are specific to an area, otherwise the conversation becomes too broad-based and abstract.

Handout 1.2: provides a useful guide as to how to prepare a map. The next step is to map the area i.e., where the "representative species" lives. For the sandbar shark example, the area of interest is the Gulf of Gabes, an area designated as a "marine biodiversity hot spot", the most important fishery area of the Tunisian fishing fleet, and a nursery ground for the sandbar shark.

Note: It can help to draw out a schematic that depicts the life history range and needs for the representative species, then identify where there are impacts by evaluating the condition of the different habitats (mapping component). Then indicate on the map where/when there are seasonal variables and potential corresponding impacts on the habitats.

Copyright: Vahit Alan, Akdeniz Koruma Dernegi

Layer 2 Evaluating climate impacts

For the second layer of the database, it is necessary to move beyond focusing on the condition of the ideal environment and look at what some of the stressors might be that are impacting the environment. It is well known that the Mediterranean is strongly feeling the impacts of climate change. This layer is all about knowing and understanding how this might be contributing both directly and indirectly to the species/habitat of interest in the policy brief.

What are some of the climate stressors and corresponding impacts that should be looked for? What impacts are being felt from:

- Warming waters?
- Rising sea levels?
- Invasive species?
- Jellyfish blooms?
- Changes in salinity?

Worksheets: Worksheet 1.1b complies with information about sandbar sharks as a reference guide to help in completion of 1.1a.

Handout 1.3: provides a summary of the most well-known impacts of climate change in the Mediterranean Sea offering a starting point to work from.

HANDOUT 1.2:

Mapping the Setting of Your Representative Species

Participatory mapping is a facilitated process in which small groups work to identify, locate, and classify significant physical features in a community or marine area. This information is then transferred into a map or represented in some other visual way such as a diagram or picture. The goal of most participatory mapping exercises is to simply create concrete opportunities for discussion about social, economic, and/or environmental resources and for individuals to learn about their own and others' perceptions surrounding these resources. Participatory mapping is an effective way for identifying and discussing primary and secondary impacts and contributes greatly to the assessment process.

Define the scope and purpose. The first step in getting started is to define the scope and purpose of the mapping exercise. This should be done with all team members involved in conducting the assessment. This step will allow the group to decide on specific information that may be needed to assess impacts, and whether to limit the exercise to one or more specific assets within a social-ecological system. The first steps in this process for our workshop on Managing Fisheries for Biodiversity Protection include:

1- SPECIES IDENTIFICATION: Identify the representative species of concern that you believe is impacted by fisheries activities. This species will become the "emblematic" species for biodiversity – and eventually the centerpiece of your policy brief.

2- PROBLEM STATEMENT: Develop a brief and simple statement on what you think the problem is in regards what is impacting the population and health of this species. One line should be sufficient as this is just a starting point and we will come back and visit this problem statement after we have conducted a diagnostic.

3- LOCATION OF MAP: Determine the specific location of the place you are mapping and the geographic extant of the boundaries.

To build the data layers on your map including the following parameters:

A. Life History Requirement: Map the areas where the life history of your representative species takes place, including places for feeding spawning grounds, juvenile and adult stages of development. These areas are likely to have associated habitats or conditions that are necessary to the health of your species.

B. Climate Change Impacts: Include areas on the map where your representative species might be or is known to be most vulnerable to climate changes such as sea level rise, ocean acidification, invasive species, warming sea surface temperatures, jellyfish blooms, etc.

C. Fisheries Activities: Map those locations where fisheries are taking place and might, or are known to, directly impact your representative species. The impact may be on the species itself through incidental bycatch, or may have an impact on a habit important to the life history of the species, or even an impact on water quality.

D. Other Human Use Activities in the Marine Environment: Map put the location of other human use activities taking place in the marine environment that may have an impact on your representative species such a recreational fishing, aquaculture, marine transportation, or wind farms. Additionally, there may be some permanent structures such as docks, marinas, or other infrastructure that is having an impact on your representative species or associated habitat.

HANDOUT 1.2:

Mapping the Setting of Your Representative Species

TIME TO GET STARTED

Create a checklist. Begin the mapping exercise by creating a checklist of features to be mapped. This checklist can be compiled by the assessment team or members of the participant group. The selected features should reflect the purpose of the exercise. Avoid having too many (>10) features in the checklist as it often clutters the map and makes interpretation by others difficult.

Prepare a base map. The preparation of a base map is useful and provides the participant group with common understanding of the orientation and scale of the area to be mapped. This can be accomplished by having the participants first draw features such as coastlines, rivers, islands, mountains, and other recognizable landmarks. To get people comfortable with sharing information, it is often helpful to have participants provide the names of the landmarks or reference points in the base map.

The use of a Geographic Information System (GIS) can be quite helpful for creating simple base maps. However, caution should be used if using satellite imagery or aerial photographs in the base maps. Many individuals are not familiar with such views of a place, and they can be confusing and distracting.

Begin mapping. Use the base map to begin identifying features from the checklist. Encourage all participants to contribute to the map. One or two individuals should not dominate the process. The use of colored pencils or pens to classify features, the use of labels, and the generation of a legend can make the map easier to interpret later. In the case of this workshop, we will be using an online shared whiteboard. Your facilitator will instruct you on how to use it and be there to assist you.

HANDOUT 1.3:

Unpacking the Layers to Better Understand the Problem

(Information below extracted and/or modified from "The climate change effect in the Mediterranean. Six stories from an overheating sea" WWF Mediterranean Marine Initiative, Rome, Italy, 2021)

2- Problem Statement (what you believe the problem is in terms of the status of the species and what is creating the problem):

1. Tropicalization of the Eastern Mediterranean is Spreading West	• Native species which prefer cooler waters are shifting the southern edge of their ranges northwards • Species communities in some areas of the southern and eastern Mediterranean have changed completely • The eastern Mediterranean is warming at a rate far above the global average and invasive species are extending their distribution in line with the rising temperatures, mostly arriving from the Red Sea by way of the Suez Canal • Impoverished and dying reefs can turn from carbon sinks to carbon sources

POSSIBLE SOLUTIONS: Networks pf MPA managers can restore biodiversity and rebuild stocks of native predatory species weakened through decades of overfishing and other human use activities. Fishers can target the new alien species to bring down the population numbers and in doing so create new revenue streams lost by the decline of previously targeted species.

2. Highly Destructive Invasive Species are Spreading Across the Mediterranean	• The Mediterranean is the most invaded sea in the world with alien species, completely interrupting and destabilizing native ecosystems • Changing sea temperatures allow for the spread of invasive species, occupying and thriving in parts of the Mediterranean that were once considered too cold • Both the rabbitfish and lionfish are amongst the most prevalent and damaging invaders • Almost 1,000 invasive species have migrated into the Mediterranean • 95% of lionfish prey are economically significant fish species • Rabbitfish have caused a 40% reduction in the numbers of native species in parts of the Mediterranean

POSSIBLE SOLUTIONS: Deliberately target rabbitfish and lionfish and create consumer demand for these fish as they are both good to eat. Additionally, an increase in native predators, such as dusky groupers which have been overfished in the past, could be achieved through effective management of MPAs.

3. Unprecedented Numbers of Jellyfish are Blooming in the Mediterranean, Disrupting Fisheries	• Although naturally part of a healthy marine ecosystem, when the system gets out of balance, jellyfish can become a problem • Jellyfish blooms in the southern Mediterranean are happening more frequently and lasting longer, radically altering regional ecosystems • Jellyfish fill up fishing nets, damaging gear and impeding efficiency • Jellyfish can impact tourist areas, flood aquaculture cages, cause problems for water intake systems and power stations • Overfishing has reduced predator and are among the most species competing with jellyfish for zooplankton

POSSIBLE SOLUTIONS: Increasing competition by reducing overfishing of key fish species is critical, including the species that eat jellyfish eggs and adults. In addition, eutrophication and land-based sources of pollutants must be brought under control to reduce the dead zones in which jellyfish thrive. It might also be worth considering creating new markets for jellyfish.

HANDOUT 1.3:

4. Posidonia, the Mediterranean's Blue Carbon Sink is in Trouble

- Posidonia, endemic to the Mediterranean, is one of the most important species in the Mediterranean ecosystem, oxygenating the sea and providing vital habitat for 20% of the marine species
- Temperature stress from climate change is expected to change distribution of posidonia
- Temperatures also attract new invasive algae species which colonize the weakening meadows, offering less support to biodiversity and storing less carbon
- Sea level rise is causing the regression of meadows around the Mediterranean
- Posidonia stores between 11-42% of CO_2 emissions from Mediterranean countries

POSSIBLE SOLUTIONS: Increasing management and protection to guard against destructive anchoring and fishing in the remaining viable seabeds. Incentives should be provided for restoration for payments through ecosystem services schemes such as carbon and nutrient trading credits. MPAs should be considered one of the most effective nature-based solutions to the protection of posidonia.

5. Extreme Weather is Destroying Charismatic Coral Species

- Gorgonians are amongst the most important corals in the Mediterranean, providing vital habitat and harboring biodiversity
- Extreme weather conditions can cause gorgonians to fall, leading to a loss of habitat complexity, diminishing biodiversity and leaving room for invasive species to inhabit the area.
- Warming temperatures impacts species such as the red gorgonian, found at depths below 25 meters where the water doesn't normally reach as high as the surface. These species are particularly vulnerable to the increasing heat waves in the Mediterranean.

POSSIBLE SOLUTIONS: MPAs can play an important role in reducing stress on remaining populations of gorgonian corals by prohibiting the use of recreational and commercial fishing gears that impact the seabed, and regulating or instilling Best Management Practices (BMPs) for recreational scuba divers. Ecological restoration and recruitment of larvae should also be considered.

6. Sudden Mass Die-offs of the Flagship Species Charismatic Pinna Nobilis

- Sudden mass die-off of the pinna nobilis may be linked to the warming taking place in the Mediterranean
- Climate change, along with other environmental stressors, has been linked to the mass die-off of pinna nobilis across large areas of their home range
- One of the largest endemic bivalves in the Mediterranean, pinna nobilis plays an important ecological role both in terms of providing important habitat and serving as a water filtration system
- Starting in 2016 in Spain, and spreading across the Mediterranean, there have been devastating mass mortality events
- Pinna Nobilis was listed as critically endangered on the IUCN Red List in 2019
- The mass mortality event was mainly caused by a pathogen and spread by currents
- Question as to the role warming temperatures played in this event
- It's not yet certain, but climate change could also be impacting reproduction and recruitment

POSSIBLE SOLUTIONS: Repopulating areas affected by the mass die-of through ecological restoration and recruitment of larvae, however, slow growth rates and low recruitment could make it problematic. Strengthening the resilience of pinna nobilis populations from other human-induced stressors will be critical.

Layer 3 Identifying impacts from the target fishery activities

The third layer of the database is focused on identifying the impacts from fishing activities on the species of interest.

What impacts are being felt from:

- Over-exploitation of the fisher?
- The use of different types of fishing gear on marine habitats?
- Bycatch of non-target species?
- Incidental take?

EXERCISE 1.2: Identifying Impacts Created as a Result of How the Fishery Activity is Conducted. Worksheet 1.2.

Identifying impacts from the target fishery activities on additional species and habitats (cascading effects on biodiversity)

- Over-capacity of the fisheries
- Gear impacts
- Bycatch of other fish species
- Incidental take of marine mammals, marine reptiles and seabirds

OBJECTIVES

To continue to build data layers that point to some of the key sources of human use impacts on both the target fishery and associated species and habitats.

Worksheets 1.2a and 1.2b: Worksheet 1.2b is populated with information about sandbar sharks as a reference guide to help complete 1.2a. Using the map, depict the spatial extent of these activities and use the worksheet to capture the data to identify if there are impacts and what the impacts might be from fishing activities on the representative species. Then prioritise which of these activities are the highest priority to address based on the following criteria: level of impact, ability to address the source of impact (capacity), and how likely it is that the results will be meaningful and last.

Handouts 1.4 & 1.5: provide some guidance which might be helpful in getting started.

WORKSHEET 1.2:

Profiling Fisheries Activities Within the Geographic Range of Your Representative Species

REPRESENTATIVE SPECIES:

FISHING ACTIVITY	ARTISANAL	COMMERCIAL	SPORT (recreational, including spear fishing)	MARICULTURE
Target Species for Fishery				
Gear Type(s) Used in Fishery				
Spatially Explicit (is there a specific location where this fishery takes place)				
Is the fishery impacting key life history periods of your representative species				
Is the fishery impacting key habitats on which your representative species is dependent				
Is this fishery impacting key ecological services on which your representative species is dependent				

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

1. POTS AND TRAPS

Habitat Damage

Setting and hauling traps on SAV or living substrates may cause damage and reduce available shelter and food. Trotline (setline) traps tend to cause more damage during hauling than single pots. Pots are not always or necessarily stationary on the seafloor, and bouncing occurs in the presence of large swells or strong tides. Although each trap has a small footprint, large numbers of traps may have a considerable cumulative effect. Reduction in biomass or cover of SAV and algae has been documented.

Bycatch

Nontarget bottom-dwelling species may be affected when they are attracted to the bait. However, because organisms entering the trap are enclosed and not entangled, they can be easily and quickly discarded when the pot is retrieved. Deeper dwelling organisms are more likely to die when brought to the surface due to changes in pressure that can damage internal organs. Marine mammals do become entangled in the marker lines connecting the pots to the buoy.

Ghost-Fishing

The effects of ghost-fishing by lost pots and traps can be very significant. The level of impact depends on several factors, including number of lost pots, rate of loss, density of pots in an area, bottom habitat and location of the lost pots, change in number of animals caught by ghost pots over time, degradation rates of pots, season of loss, catchability of unbaited pots (as well as the rebaiting of pots by dead and dying animals), rates of ingress and egress by organisms, and mortality of animals in lost pots. Mortality in pots depends on adverse environmental conditions (e.g., low oxygen), predation, injury by other animals in the pot, starvation, and disease. Delayed mortality may also occur after escape from pots.

Examples of Threats

- Shellfishes and crabs may be caught in lost gear.
- Buoy lines of lobster pots in New England entangle marine mammals, such as the critically endangered Atlantic right whale.
- In the Caribbean, pots and traps are set on living organisms or substrates 40 percent of the time and may crush or damage these organisms.

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

2. LONGLINES – BOTTOM

Habitat Damage

Damage to habitat caused by bottom longlines is limited because the gear is small in weight and area. However, hauling the lines from the bottom may cause the hooks to snag, and the lines may cause abrasions or entangle rocks, coral, or structural organisms such as sponges or gorgonians. When lines are hauled mechanically, this damage is magnified.

Bycatch

Bycatch of seabirds is a significant consequence of bottom longline fisheries. Deployment of longlines attracts seabirds, which dive for the baited hooks as the lines are released from the vessel. Seabirds may ingest these baited hooks and subsequently drown. Sharks and marine mammals are also caught when they mistake the bait for prey. When hooks are hauled in individually, nontarget catch may be released, but damage due to hooks, handling, and stress of capture decreases survival. Mechanical hauling and line-strippers prevent live release.

Ghost-Fishing

Unknown bycatch impact; lost gear continues to fish until bait is lost. Lost gear may entangle benthic species such as corals and gorgonians, resulting in damage or death.

Examples of Threats

- Bycatch of seabirds in Alaska groundfish longline fisheries resulted in thousands to tens of thousands of birds killed per year, prior to the incorporation of streamer lines, a bycatch reduction device.
- Bottom longlines may damage corals, such as gorgonian corals in Alaska, when hooks snag during hauling.

Copyright: George Desipris

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

3. GILL NETS/ TRAMMEL NETS

Habitat Damage

In strong ocean currents or when being hauled out of the water, bottom gillnets may become tangled and snagged on rocks and living organisms, such as corals and aquatic plants, breaking or uprooting structures and organisms. Damage is higher with mechanical hauling gear.

Bycatch

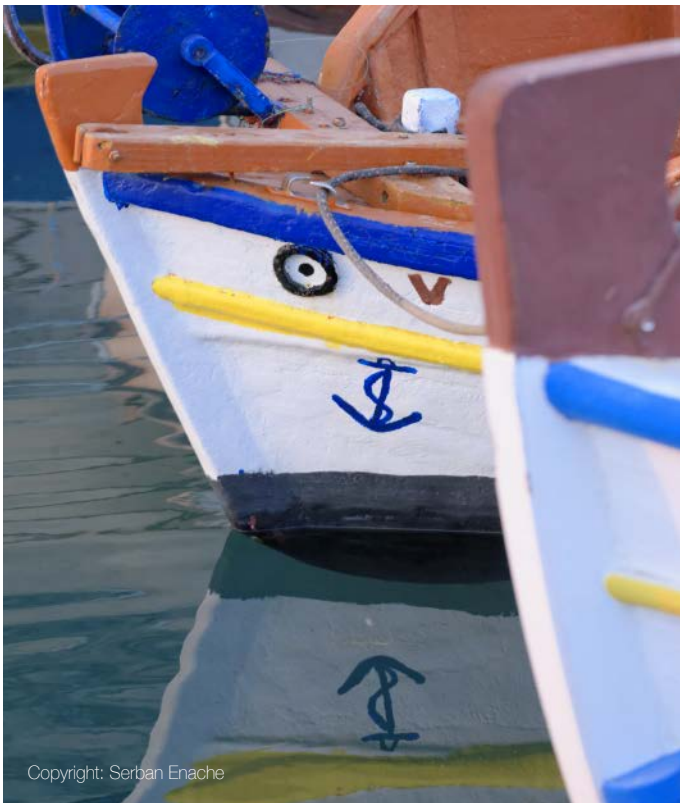
Gillnets are a nonselective type of gear, often catching a wide range of nontarget species. By extending vertically into the water column, bottom gillnets cause bycatch of marine mammals, seabirds, sea turtles, sharks, and finfishes. Occasionally, benthic species such as crabs become entangled. In states where gillnets are legal, regulations limit soak times and net mesh size to reduce bycatch of nontarget and juvenile target species.

Ghost-Fishing

Gillnets often are intentionally placed near shipwrecks to take advantage of the fishes' attraction to these structures, resulting in the wrecks becoming covered with nets which continue to catch fish that cannot be recovered. The rate of continuous fishing by lost gillnets (ghost-fishing) depends on maintenance of a vertical profile, visibility to fish (older nets become more visible as a result of encrustation by algae, etc.), and abundance of fish in the area where the gillnet is lost. Lost nets can become tangled on seafloor structures such as coral heads and rocky outcroppings, damaging the seafloor and entangling organisms.

Examples of Threats

- In New England, gillnets cause bycatch of harbor porpoises, bottlenose and white-sided dolphins, pilot whales, harbor seals, gray seals, and harp seals.
- Shark bycatch occurs in gillnets throughout U.S. waters.
- Thousands of seabirds, such as common murres, as well as harbor porpoises, sea otters, and other marine mammals, are caught in halibut fisheries off California.
- Endangered and threatened sea turtles, such as green, loggerhead, and Kemp's ridley turtles, commonly are caught in southern gillnet fisheries.
- Bottom gillnets may snag on corals and sponges, causing them to break.



HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

4. DREDGES

Habitat Damage

Dredging reduces habitat complexity, leading to long-term effects including decreased species richness and biomass and increased presence of weedy species. Dredging damages organisms, reduces biomass and smothers submerged aquatic vegetation (SAV) and algae. On sand, mud, and silt bottoms, dredging smooths bedforms, resuspends sediments reducing the number of species living there as a result of burial or smothering, and reduces nutrients and microbial activity. Dredging of gravel, hard-bottom, and living habitats reduces species living in the interstices of the gravel and rocks, species attached to the seafloor, and habitat complexity. On oyster reefs dredging reduces reef height and decreases oyster resistance to low oxygen. Dredging also damages shellfish found in and on top of soft bottoms.

Bycatch

Dredge catch or damaged organisms not targeted, especially sponges, bivalves, aquatic vegetation, and bottom fishes. These organisms often are uprooted from the seafloor and then crushed by the weight of the bag and are unlikely to survive if captured and discarded. Bag ring size can be regulated to reduce the number of unwanted organisms retained in the bag.

Ghost-Fishing

No effects are expected, given that dredging gear is rarely lost, and if it is, it stops fishing.

Examples of Threats

- Dredging for sea scallops and clams in New England causes significant bycatch of small crabs and other bottom dwelling organisms, such as flounder and barndoor skates.
- Dredges cause severe habitat damage, especially in areas of hard bottom and gravel. An example is seen off Swan Island in New England, where the coverage of living organisms attached to the seafloor has been greatly reduced.

Copyright: Alexander Grigorian

5. TRAWL – BOTTOM

Habitat Damage

Trawling reduces habitat complexity, species richness and biomass, and increases the presence of weedy species by altering the species composition (e.g., long-lived and fragile species are less likely to withstand trawling). It reduces the biomass of SAV through loss of rhizomes and smothering, reduces coverage of organisms attached to the seafloor, smooths bedforms, and compresses sediments in sand and mud habitats. Bottom trawling also resuspends sediment (turbidity), lowers the nutritive quality of sediment, and reduces primary and microbial production. Turbidity impedes the normal functioning of benthic organisms' feeding and respiratory structures, resulting in hypoxia or anoxia. Turbidity may also increase primary and microbial production in certain situations. On hard-bottom and living habitats, trawling reduces the size and/or density of invertebrates such as sponges and coral colonies. Trawling displaces boulders and damages seafloor structures, reducing feeding and sheltering sites for marine life.

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

Bycatch

Bycatch varies seasonally, temporally, and by target species. Bottom trawls catch nontarget species, including fishes, marine mammals, turtles, seabirds, and invertebrates, as the net sweeps across the ocean floor. Because such large quantities of ocean life are brought on board at once, the unwanted organisms are often returned to the ocean dead, having failed to recover from being crushed in the net, or unable to recover from being out of the water for the length of time it took to sort the catch.

Ghost-Fishing

Despite regulations, old nets and cod ends are dumped at sea. Lost trawl gear has low ghost-fishing potential unless the net is suspended by floats. Buoyant trawl web masses attract pelagic fishes and invertebrates, which in turn attract and entangle sea turtles and seals.

Examples of Threats

- Bottom trawls continue to drown sea turtles, especially leatherbacks and adult loggerheads, in the Gulf of Mexico and South Atlantic FMC region shrimp trawl fisheries, despite regulations requiring the use of turtle excluder devices (TEDs).
- Shrimp trawls catch substantial numbers of shark pups and juveniles in shallow waters.
- For every pound of shrimp caught in the Gulf of Mexico trawls, as much as 10 pounds of fishes and invertebrates are discarded, often dead or dying.
- Bottom trawls cause damage to bottom habitats and have long-lasting effects on the organisms growing on gravel habitats in New England and in areas with deep sea corals and sponges in the north Pacific.

6. GILL NETS - MIDWATER & DRIFT

Habitat Damage

Because midwater gillnets rarely come into contact with the seafloor, their effects on habitat are minimal.

Bycatch

Gillnets are a nonselective type of gear, often catching a wide range of nontarget species. By maintaining a vertical profile in the water column, drift gillnets cause bycatch of marine mammals, seabirds, sea turtles, sharks, and finfishes. In states where gill nets are legal, regulations limit soak times and net mesh size to reduce bycatch of nontarget and juvenile target species.

Ghost-Fishing

The rate of continuous fishing by lost gillnets (ghost-fishing) depends on maintenance of a vertical profile, visibility to fish (older nets become more visible as a result of encrustation by algae, etc.), and abundance of fish in the area where the gill net is lost. Lost nets can become tangled on seafloor structures such as coral heads and rocky outcroppings damaging the seafloor and entangling organisms.

Examples of Threats

- In Alaska and Puget Sound, Washington, marbled murrelets and common murres are entangled and killed in salmon fisheries.
- High bycatch of sharks in midwater and drift gillnets occurs in swordfish fisheries.
- Threatened and endangered sea turtles, such as green, olive ridley, and leatherback turtles, are caught in fisheries along the coast of California and in the South Atlantic FMC region.
- Marine mammals are frequently taken as bycatch in midwater and drift gillnets, including approximately 2,000 harbor porpoises taken in New England and Mid- Atlantic FMC fisheries.
- Bycatch of juvenile swordfish and other billfishes occurs in Atlantic tuna and shark fisheries.

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

7. HOOK AND LINE

Habitat Damage

Hooks are often suspended in the water column and usually do not touch the seafloor. If they are set on or near the seafloor, damage can occur from entanglement, breakage, or minor degradation of seafloor organisms such as invertebrates (corals, sponges, or gorgonians), and lines and sinkers may cause abrasions.

Bycatch

Bycatch of finfish and sharks occurs when either undersized individuals or nontarget species are caught and discarded. As individual lines are retrieved, unwanted catch can be quickly returned to the water, increasing chances of survival; however, damage from hooking and handling and stress caused by capture decrease chances of survival.

Ghost-Fishing

Lost lines may affect habitat by entangling and damaging structures. Lines may also entangle and kill a variety of marine life.

Examples of Threats

• Lost gear can become tangled on seafloor structures such as coral heads and rocky outcroppings, damaging the seafloor and entangling organisms.

8. TRAWLS – MIDWATER

Habitat Damage

This gear is not configured to come into contact with the bottom. Seafloor contact that does occur is poorly studied.

Bycatch

Because midwater trawls target very large schools of fish, bycatch percentage is low, however the number of individuals in the bycatch is high.

Ghost-Fishing

Despite regulations, old nets and cod ends are dumped at sea. Lost trawl gear has low ghost-fishing potential unless the net is suspended by floats. Buoyant trawl web masses attract pelagic fishes and invertebrates, which in turn attract and entangle sea turtles and seals.

Examples of Threats

• Habitat damage occurs when trawls contact the seafloor, as in the Bering Sea pollock fishery.

• Because of its enormous scale, the Bering Sea pollock fishery has the largest total bycatch of any fishery, although the overall rate relative to targeted catch is small.

HANDOUT 1.4:

Impacts on Biodiversity by Fishing Gear Type

9. LONGLINE – PELAGIC

Habitat Damage

Because pelagic longlines rarely come into contact with the seafloor, their effect on habitats is minimal.

Bycatch

Bycatch of seabirds, sea turtles, sharks, and billfishes is a significant consequence of pelagic longline fisheries. Deployment of longlines attracts seabirds, which dive for the baited hooks as the lines are released from the vessel. Seabirds may ingest these baited hooks and subsequently drown. Sharks, billfishes, sea turtles, and marine mammals are also caught when they mistake the bait for prey. When hooks are hauled in individually, nontarget catch may be released, but damage due to hooks, handling, and stress of capture decreases survival. Mechanical hauling and line-strippers prevent live release.

Ghost-Fishing

Unknown bycatch impact, but lost gear continues to fish until bait is lost. Lost gear may entangle benthic species such as corals and gorgonians, resulting in damage or death.

Examples of Threats

- Blue, whitetip, and thresher sharks, and other deep-ocean species often are caught on longlines set to catch tunas and swordfish.
- At least forty seabird species, including albatrosses and petrels in Alaska, are killed by pelagic longlines, with mortality rates high enough to cause population declines in at least half of these species. Streamer line usage is reducing this number.
- Critically endangered leatherbacks and other endangered and threatened sea turtles are common bycatch in pelagic longline fisheries for swordfish and tunas in both the Pacific and Atlantic fisheries.
- Bycatch of marine mammals occurs in most Atlantic pelagic longline fisheries, including that for big-eye tuna, in which more than 150 pilot whales are estimated to die every year.
- Bycatch of marlin and other billfishes occurs in Atlantic tuna and swordfish fisheries.

10. PURSE SEINES

Habitat Damage

Purse seines used for salmon in Alaska contact the seafloor and may harm submerged aquatic vegetation. In the Gulf of Mexico menhaden fishery, there is frequent seafloor contact, resulting in sediment resuspension that may bury certain invertebrates. These impacts are largely unknown. Effects on other habitats are expected to be minimal.

Bycatch

Bycatch of sharks and finfishes, species that associate with the targeted fish schools, occurs throughout U.S. waters.

Ghost-Fishing

No effects are expected, given that this type of gear is very rarely lost.

Examples of Threats

- Shark bycatch in the Gulf of Mexico menhaden fishery is equal to one-third of the target catch for sharks in this region.

Excerpted from: *Morgan, Lance E. and Chuenpagdee, Ratana. 2003. Shifting Gears: Addressing the Collateral Impacts of Fishing Methods in U.S. Waters. Pew Science Series.*

HANDOUT 1.5:

Indicators of Overfishing

1. Change in species being caught with same method

Increasing incidence of “trash fish” (less valuable fish)
Decreasing incidence of targeted species
Decreasing incidence of bycatch species

2. Change in average size of fish

Most fish are smaller than mature size
Note: Requires a consistent measurement of fish sizes over time.

3. Change in total fish catch and composition of catch

Decrease in catch determined by comparing catches over a time series that includes at least a 10-year time span, using formal or informal data sets of catch records.
Marked decrease in size and abundance of high-value and once abundant fish

4. Change in catch-per-unit-effort (CPUE)

Greater effort (more boats, more tonnage, etc.) results in same or smaller catch
Calculate by first determining an appropriate measure of effort (number of fishers, number or tonnage or horsepower of boats, time spent, etc.); then compute CPUE by dividing total fish catch by the measure of effort. Compare past & present data with the same fishing area or other areas

5. Change in fishing methods and effort

Increased use of fine-mesh nets to catch fish (e.g. triple-net, double-net, even mosquito net)
Marked increase in illegal fishing and use of destructive fishing methods
Fishers spending more hours to catch fish or unable to fish all year round
More fishers traveling to distant fishing grounds (particularly for fish they used to catch locally)
More boats not going out to fish or used less frequently
Increasing use of fish aggregating devices including traps

6. Increases in price of targeted, then non-targeted species

7. Decline in average income of fishers

Compare average income over time after accounting for price changes

8. More fishers in area, due to lack of employment or migration to area

9. Disappearance of once abundant marine species such as sharks, turtles, large shells, iconic fish species, and a noticeable lack of seabirds hunting for schools of fish

This is not a complete list. A specific area and fishery may have additional signs of overfishing, often known by the local fisher people.

List adapted and modified from:

Green, Stuart J., Alan T. White, Jimely O. Flores, Marciano F. Carreon III, Asuncion E. Sia. 2003. Philippine Fisheries in Crisis: A Framework for Management. Coastal Resource Management Project & Philippine Department of Environment & Natural Resources.

Layer 4 Identifying impacts from other human use activities

Now for the final layer of the site characterization. It is important to note at this point that the reason for the species' decline, for example the sandbar shark, cannot automatically be blamed solely on fishing. It is easy to jump to the conclusion that all impacts on marine biodiversity are from fishing, but often it is not so clear cut. It is more often only part of the "impact' equation, but in many cases the impacts from activities such as tourism, aquaculture, recreational fishing - not to mention land-based sources of impact – are just as harmful as fishing. It is necessary to look at these other activities as well, to understand and acknowledge their potential role in causing the problem. In the guidebook to avoid getting lost only other human uses taking place in the coastal and marine environment are considered. However, to perform a full and complete problem process model, land-based sources of impacts must also be considered.

What impacts are being felt from activities such as:
- Shipping?
- Aquaculture?
- Underwater exploration?
- Construction?

EXERCISE 1.3: Identifying Impacts from Other Human Use Activities in the Shared Marine Environment – the Problem is Not Always What You Think It Is. Worksheet 1.3

Identifying impacts from other human use activities in the marine environment on associated species and habitats (cascading effects on biodiversity)

- Impacts from the way other human use activities are conducted such as tourism, coastal development, competing or other fisheries, vessel traffic, etc.

OBJECTIVES
to identify other sources of impacts on the marine environment beyond the focal fishery.

Worksheets 1.3a and 1.3b: 1.3b is populated with information about sandbar sharks as a reference guide to help complete 1.3a. Begin by listing the other major human use activities that take place within the same geography as the representative species. Then, evaluate what kinds of known and projected impacts these activities are having on the representative species. Finally, prioritise which of these activities are the highest priority to address based on the following criteria: level of impact, ability to address the source of impact (capacity), and how likely it is that the results will be meaningful and last. Again, be sure to add this information to the map.

WORKSHEET 1.3:

Impacts on Your Representative Species from Other Human Use Activities

Describe Activity	Is it Illegal (Y/N)	How frequently does this activity take place?				Who is responsible for these activities and where are they from?	Is this directly impacting your representative species?	Is this impacting ecosystem services your representative species is dependent on?
COASTAL ACTIVITY								
		daily	weekly	month	On-going			
		daily	weekly	month	On-going			
MARINE-BASED ACTIVITY								
		daily	weekly	month	On-going			
		daily	weekly	month	On-going			

PART 1 BUILDING THE FOUNDATIONS

Identification and diagnosis of a fisheries-related issue to better calibrate the root cause(s)

EXAMPLE Take away messages:

Using the sandbar shark example below are a summary of findings from this exercise which would serve as the building blocks, moving towards creating the structure for our policy brief.

Early-stage problem statement: Overfishing is having an impact on biodiversity.

Unique life history characteristics: The biological characteristics of this top predator include low fecundity, late maturity and slow growth making them a vulnerable species to begin with.

Geographic focus: Gulf of Gabes is an important nursery for sandbar sharks, and in general, the extant of these shallow water biotic communities are increasingly reduced.

Climate impacts: Warming waters in the Gulf of Gabes are impacting the availability of suitable habitat nursery areas, which the sandbar shark uses up to 10 years of age.

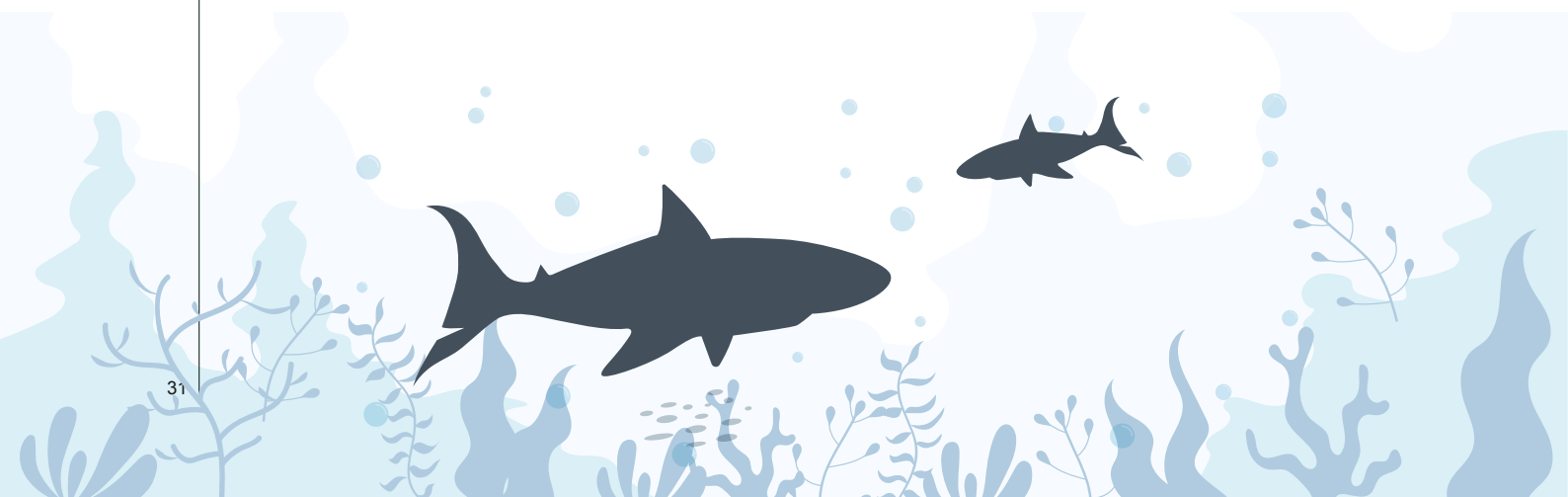
Fishing impacts: The Gulf of Gabes is the most important fishing area in Tunisia and the intensity and the wide use of non-selective fishing practices is impacting sharks.

Other activities: Aquaculture activities are contributing to the decline in the population of sandbar sharks due to destruction of bottom habitat and availability of spatial needs.

This can be summarised further:

Sandbar sharks are top predators; and their life cycle traits make them a vulnerable species
The Gulf of Gabes sandbar shark nursery habitat is disturbed by human use and warming waters
Non-selective fishing gear and intensive fishing activities are impacting sandbar shark populations
Aquaculture is also contributing to the destruction of bottom habitat nursery grounds

After this first phase of the diagnostic, the scope (focus) of the initial problem statement might be looking a little different and already need to be narrowed.



PART 2 BUILDING THE FOUNDATIONS

Finding the way from the source of the problem (root cause) to viable, realistic, and effective solutions

From Data Collection To Issue Analysis

OBJECTIVE

In this section a single model is introduced that helps move from site characterisation to identifying root causes, that then point to potential solutions.

Once data have been collected as part of the diagnostic or data collection process, there are 3 other points to consider in the issue analysis. The issue analysis involves looking at all the data sets together to start to determine what story they are telling. When the issue analysis is complete, it should be clear how some solutions can contribute to address the problem. At that stage it is time to develop the policy brief. But before that, it is necessary to complete the issue analysis. The issue analysis involves compiling information on three additional aspects:

1- Is there an existing governance structure in place and how is that working?
2- Who are the stakeholders that may be contributing to the impacts?
3- What is going to have to change to move from the current situation to the ideal situation?

Bringing all the data layers together into a single model allows for a more in-depth look at the current state of the environment. Once these data layers have been brought together, the governance models have been reviewed and associated stakeholders explored, almost all the pieces of information needed to put the policy brief together have been assembled – except one. The final task needed to complete the issue analysis involves building the incremental steps to get from where you are today (the current situation) to where you want to be, say 5 or 10 years from now (vision for the future – this is the centrepiece of what the policy brief would like to see achieved. These incremental steps will form the recommendations for actions to be taken in the policy brief.

Conducting an issue analysis

OBJECTIVE

In this section the aim is to work through the model moving from site characterisation to identifying root causes, that then point to potential solutions.

During the diagnostic phase, the aim was to try to understand the condition of the environment where the representative species lives and what the different sources of impacts were on that species. To go deeper, it is necessary to understand what kind of governance models are in place – is there a fisheries management plan in place? Is there an MPA or other type of managed area designation in place? Is there a guiding government policy in place? Are these governance approaches working? Why or why not? This information should be added to the previous data layers. Each of the identified impacts then needs to be examined to answer these questions: “Are there stakeholders involved in creating these impacts, and if so, who are they, and why are they creating these impacts (what is the behaviour or root cause creating the impact)?”

The “root cause”, may be multiple root causes. Returning to the initial problem statement of overfishing it is necessary to probe deeper – “why is overfishing occurring?” – is it an economic situation, over capacity of the fishery, poor fisheries management, non-existent enforcement – or maybe something completely different is contributing to the problem. Maybe the problem is not solely “overfishing” but rather the cumulative effects of climate change + non-point source pollution + too many boats participating in the fishery. The problem might end up being redefined from “overfishing” to “declining fish stocks” due to the cumulative effects of impacts from a range of sources”. Once the problem is reframed and the root cause identified, the way forward for a more direct path to understanding what the appropriate solutions might be becomes much clearer.

EXERCISE 1.4: Conducting a Situation Analysis to Build the Rationale for Policy Recommendations. Poster 1.2

Opportunity to bring the 4-step characterization process into a singular analytical model

- Populate the poster with the data generated during exercises 1.1 – 1.3.
- Overall information on any governance structures already in place
- Identify stakeholders associated with the sources of the impacts
- Re-evaluate the problem statement
- Craft and “ideal state”
- Identify incremental changes necessary to achieve the “ideal state”

OBJECTIVES

to use a single model to move from site characterization to identifying roots causes, that then point to potential solutions.

the below diagram is populated with information is populated with information about sandbar sharks as a reference guide to help complete 1.2a. Using the diagram and based on the data gathered during part 1, overlay any existing governance structures and determine how effective they are in addressing the impacts on the representative species. Next identify any stakeholders associated with the identified impacts on the representative species. The next step is to carefully re-evaluate the problem statement and craft (new) language as needed. Then craft a statement on the ideal state (what change to an optimal state looks like) and determine what kinds of incremental changes will have to occur to make the “ideal state a reality”.

Once complete the foundation has been built and a sound model has been compiled that will support and give form to the policy brief. By assembling all the data layers generated in Part 1 into the model and exploring the “root cause” of the impacts on the representative species, and a range of solutions for articulation in the policy brief will be much more apparent. Remember, this is not the policy brief, but rather the foundation supporting it.

Building Your Model as the Rational for Your Policy Brief Recommendations

1- Representative Species of Concern:

2. Brief Description of the Issue (description of the current state):

3. Problem Statement:

4. Analyze the Issues by Breaking Down the Layers (briefly describe areas of impacts):

	AREAS OF IMPACT	BRIEF DESCRIPTION OF MOST CRITICAL IMPACTS ON REPRESENTATIVE SPECIES	WHAT'S THE BAD NEWS REQUIRING AN INTERVENTION? (what piece of this needs to be addressed)	IS THERE ANY MANAGEMENT/ GOVERNANCE IN PLACE IN REGARDS TO THIS SOURCE OF IMPACT AND IS IT EFFECTIVE?
a				
b				
c				

5. Identification of Stakeholders Entities Involved orin the Activities Creating the Impacts:

	RESPONSIBLE STAKEHOLDERS	PROJECTION OF STAKEHOLDERS' PERCEPTION OF THE SITUATION – DO THEY KNOW OR THINK THERE IS A PROBLEM?	IS THERE A ROLE FOR THEM IN ADDRESSING THE IMPACTS ON YOUR REPRESENTATIVE SPECIES? (describe the role, not the solution)	WHAT DO YOU THINK THEIR ATTITUDE MIGHT BE TOWARDS WORKING TO FIND SOLUTIONS?
a				
b				
c				
d				
e				

6. Getting to the Root Cause of the Most Critical Type of Impact on Your Representative Species – the "3 Whys":

a. Select one type of impact on your representative species that is the priority to address and for which you might be able to find practical and implementable solutions (include a brief description): Touristic Activities

b. Stakeholder Group:	c. Why are they creating this impact?	d. Why are they creating this impact?	e. Why are they creating this impact?

Building Your Model as the Rational for Your Policy Brief Recommendations

7. The Best Solution(s) for Addressing Each Why (minimum one and maximum 3 solutions):

b. Stakeholder Group (restated):	c. Solution to "why 1":	d. Solution to "why 2":	e. Solution to "why 3":
	c. Challenge to implementing this solution:	c. Challenge to implementing this solution:	c. Challenge to implementing this solution:
	c. Who would be responsible for implementing this solution:	c. Who would be responsible for implementing this solution:	c. Who would be responsible for implementing this solution:

8. What State You are Trying to Achieve:

a. Describe what success looks like:

MINIMUM	TARGET	EPIC

b. What will happen if nothing is done and/or if you don't achieve these results (describe what it will look like 5-20 years from now):

c. Put it in Perspective:

Re-state the Current State:	What Needs to Change to Move from the Current State to Success:	What Success Looks Like:

9. Models of Practice from Other Similar Settings to Consider as Tried and True Examples of Success:

a.	b.	c.

10. Ensuring Results-based Solutions

	SOLUTION(S)	MID-TERM MILESTONE (incremental expected change)	ANITCIPATED END RESULT (within given time period)	WHICH "WHY" ARE YOU ADRESSING (root cause)
a.				
b.				
c.				
d.				
e.				
f.				

Building Your Model as the Rational for Your Policy Brief Recommendations

d. Assumptions – What Makes You Think These Solutions Will Work (what you are basing it on):

11. Major Implementation Partners:

a.	b.	c.

12. Complete the Circle:

a. Rewrite your problem statement:

b. Now check your model by reviewing it from bottom to top, and top to bottom. Does the logic hold together and support your conclusions?

PART 3 DEVELOPING THE POLICY BRIEF

Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

Part 1 & 2 are complete, and the strong foundation has been built that will provide the content for the policy brief. These steps have provided more confidence in the fact that the problem has been fully understood and led to the identification of appropriate solutions. In Part 3 the process to synthesize all the information/data assembled so far into an effective and concise summary document for policy decision maker(s) is presented.

What is a policy brief?

OBJECTIVE

This section introduces the reader to what a policy brief is and why and how they can be used.

What is a policy brief?

A policy brief is a concise summary of a particular issue, the policy options to deal with it, and some recommendations on the best option to solve it. They are aimed at government policymakers and others who are interested in formulating or influencing policy.

There are two basic types of policy briefs:

- Advocacy briefs which argue in favour of a particular course of action
- Objective briefs which give balanced information for the policymakers to use and to make up their own minds

Policy briefs can be used to

- Influence public policy and practice
- Influence public attitudes and behaviour
- Influence decision-making by providing evidence and actionable recommendations to decision makers
- Bring about well supported, permanent, and lasting change

What should a policy brief do?

A policy brief should:

- Provide enough background for the reader to understand the problem
- Clearly express the urgency and convince the reader that it must be addressed urgently
- Provide information about alternatives (in an objective brief)
- Provide evidence to support one alternative (in an advocacy brief)
- Encourage the reader to decide

How is a policy brief created?

by SYNTHESIZING!

- Distilling a large amount of complex information so the reader can quickly get to the heart of the issue
- Providing an overview of the background of the issue
- Identifying key stakeholders
- Making appropriate recommendations
- Supporting your position with data

What should a policy brief include?

To achieve its objectives, a policy brief should:

- Be short and concise. Focusing on a particular problem or issue. It should provide enough information for the reader to understand the issue and come to a decision, without getting bogged down in all the details.
- Be based on firm evidence, not just opinions, one or two experiments or a single year's experience. It should draw evidence from various sources – preferably from several different areas or organisations.
- Focus on meanings, not methods. It should include what has been found and what is being recommend. It does not need to include the details of the methodology.
- Relate to the big picture. The policy brief may build on context-specific findings, but it should draw conclusions that are more generally applicable.

How is a policy brief effective?

- by being IMPACTFUL!
- Targeted messaging focused on a single topic
- Supported by facts
- Politically feasible
- Actionable
- Costed
- Timely

Tip:
Policymakers are generally extremely busy and are most likely not specialists in the subject area. A policy brief needs to be prepared so it has the biggest chance of being read. A brief is mostly likely to be read if it:

- Looks attractive
- Appears interesting
- Is short and easy to read – no technical words or jargon

Who is the policy brief for?

OBJECTIVE

The importance of knowing the target audience is outlined in this section – who are you writing the policy brief for?

Before a policy brief is written, time must be taken to consider who the brief is being written for and how to ensure the brief will be of interest and catch their attention. It is fundamental to be clear about who the audience is that the brief is speaking to. If the audience is not already known, then research should be conducted to find out this information before getting started.

What are the key things to consider?

Audience: who are the prospective readers? How can the message be framed and tailored for the audience?
Stakeholders: include their interests to make a viable policy recommendation
Interests: what are the policy makers' interests and how do these interests complement or differ from that of the audience? What level of knowledge do they have on the subject? What information will they need to decide?
Recommendations: policy recommendations should reflect the above analysis
Decision time: what information will be needed to take a decision and is the target for the brief the final decision maker(s)?
How to: should include suggestions on how to sell the policy to the public.

Before starting to write, establish:

- Is this a group or individual decision?
- What questions might they ask?
- What are their concerns?
- Who are they accountable to?

Profiling your audience

OBJECTIVE

In this section how to understand the recipient(s) of the policy brief is explained along with how to craft the brief to be responsive to that target audience.

Worksheet 2.1: profiling the target audience. This worksheet helps determine who the primary and secondary decision makers are that the policy brief is being crafted for. Start by answering the questions which will help characterise the target audience, then based on those responses fill out the message box. The message box helps get clear about what the message is and how best to frame it.

Handout 2.1 tapping into group identity, can help give some guidance on how to better understand the target audience.

WORKSHEET 2.1:

Profiling Your Target Audience

1. Who are you representing as the author of this policy brief (an expert, an institution, an organization, etc.):

2. What voice are you bringing to the policy brief (what is your angle – a conservation approach, a community concern, etc.):

3. Who is the target audience at which you are directing the policy brief (note that there may be multiple audiences, but for the purpose of this brief, directed at a person or entity that is as close as possible to the final decision maker):

4. Analyze the Issues by Breaking Down the Layers (briefly describe areas of impacts):

1. Is this a singular individual or a group decision making process?
2. Does the decision ultimately reside with an individual?
3. Does this target audience have the authority to implement your recommendations?
4. Is this a topic they already have an interest or knowledge of?
5. How open are they to the entity or institution you are representing?
6. Who or what are they influenced by in their decision making?
7. Who do they institutionally ultimately have to answer to?
8. Do they have other entities or constituents they are influenced by or have to answer to?
9. How open do you expect them to be to your recommendations?
10. What questions might they ask?
11. What concerns might they have?
12. In general, which category or categories do you think they are likely to fall into?

☐ alarmed ☐ doubtful ☐ unconcerned ☐ dismissive ☐ concerned ☐ cautious

Please explain:

WORKSHEET 2.1:

Profiling Your Target Audience

Now fill out the message box as a starting point to get clear on how you want to frame your policy brief:

Audience:

Issue:

Problem:

Benefits:

Solution:

Now what?:

HANDOUT 2.1:

How to Tap Into Group Identity to Create a Sense of Affiliation and Increase Cooperation

An individual comprises numerous roles and identities, each of which has its own set of goals.

In any given situation, an individual may call into play multiple iden¬tities (household member, town resident, fish monger, parent, member of religious organization, government worker, lawyer, policy maker), even when the goals of the various identities may conflict with each other. To resolve that conflict, an individual has to decide which identity is most relevant in a situation. The strength of affiliation that someone feels toward other members of a group (or the people that may be affected by a decision) can determine which identity that person chooses to apply in a particular situation.

When people make decisions, they recognize the sit¬uation, their identity in that situation, and the rules that are most appropriate given the situation and their chosen identity.

Center for Research on Environmental Decisions (CRED) research suggests that group affiliation may influence whether an individual decides to cooperate in a group decision or not for several reasons:

- Group affiliation can activate social goals (i.e., concern for others, maximizing the good of the group);
- Participating in a group allows group norms to exert a stronger influence on individuals;
- Participating in a group also leads to greater intrinsic reward for individuals when group goals are achieved.

Communicators will find it effective to create a sense of group affiliation within an audience. Since affiliation with smaller groups can be stronger than with large groups, they should try to find the most common yet smallest affiliation that the audience can identify with.

Sometimes marine conservation communicators need to go beyond presenting to a general audience to brokering an environmental decision within a group setting.

Many environmental decisions are group decisions, so it is vitally important for communicators to understand how people participate in group settings, whether public or “closed door.” Some of the variables include:

- the relationships that exist among the individuals and groups involved
- the participants’ individual and group goals
- the different ways people participate in groups
- norms concerning how the meeting should be run.

[This handout was extracted from CRED materials]

PART 3 DEVELOPING THE POLICY BRIEF

Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

The incremental steps for building the policy brief

OBJECTIVE

This section of the guidebook provides a step-by-step guide of how to craft a policy brief to make sure that it can be as impactful and effective as possible.

There are a few parameters that should be considered when laying out a policy brief:

- ✓ A policy brief is often a stand-alone document (although some policy briefs are part of a series within an organisation and so check this with your team and communications department, especially for layout and formatting)
- ✓ Focused on a single topic
- ✓ May have multiple recommendations (solutions)
- ✓ No more than 2 pages (ideally policy briefs are 1 page 700 words max. There are options for longer briefs up to 8 pages. However, these longer documents are often supporting documents that contain relevant background information and are not a policy brief).

A policy brief has some key elements. Think of this as the outline.

Key elements of a policy brief:

STEP 1 **Executive Summary:** appears front and centre, but is written last
STEP 2 **Introduction:** overview of the problem
STEP 3 **Approaches and Results:** examination of findings
STEP 4 **Concluding Recommendations:** discussion of analysis and supporting information

What about the content of the policy brief? The information gathered from the process steps in parts 1 & 2 (problem solving and creating the final model) provides the majority, if not all, of the information needed to put the policy brief together. All that rich information gathered needs to be reorganised into these four different pieces of the policy brief.

Handout 2.2: provides tips for honing the policy brief as a point of reference and additional guide for crafting the policy brief.

HANDOUT 2.2:

Policy Brief Structure & Tips for Writing Effective Policy Briefs

KEY ELEMENTS OF A POLICY BRIEF:

STEP 1 **Executive Summary:** appears front and centre, but is written last
STEP 2 **Introduction:** overview of the problem
STEP 3 **Approaches and Results:** examination of findings
STEP 4 **Concluding Recommendations:** discussion of analysis and supporting information (what the data points to)

CRAFTING AN EFFECTIVE POLICY BRIEF:

What a persuasive Policy Brief should be (Lifted from Young and Quinn, n.d.)
As with all good marketing tools, the key to success is targeting the particular audience for your message. The most common audience for a policy brief is the decision-maker but, it is also not unusual to use the document to support broader advocacy initiatives targeting a wide but knowledgeable audience (e.g. decision makers, journalists, diplomats, administrators, researchers). In constructing a policy brief that can effectively serve its intended purpose, it is common for a brief to be:

FOCUSED All aspects of the policy brief (from the message to the layout) need to strategically focused on achieving the intended goal of convincing the target audience. For example, the argument provided must build on what they do know about the problem, provide insight about what they don't know about the problem and be presented in language that reflects their values, i.e. using ideas, evidence and language that will convince them.

PROFESSIONAL, NOT ACADEMIC The common audience for a policy brief is not interested in the research/analysis procedures conducted to produce the evidence, but are very interested to know the writer's perspective on the problem and potential solutions based on the new evidence.

EVIDENCED-BASED The policy brief is a communication tool produced by policy analysts and therefore all potential audiences not only expect a rational argument but will only be convinced by argumentation supported by evidence that the problem exists and the consequences of adopting particular alternatives.

LIMITED To provide adequately comprehensive but targeted argument within a limited space, the focus of the brief needs to be limited to a particular problem or area of a problem.

SUCCINT The type of audiences targeted commonly do not have the time or inclination to read an in-depth 20 page argument on a policy problem. Therefore, it is common that policy briefs do not exceed 6 – 8 pages in length (i.e. usually not longer than 3,000 words).

UNDERSTANDABLE This not only refers to using clear and simple language (i.e. not the jargon and concepts of an academic discipline) but also to providing a well explained and easy to follow argument targeting a wide but knowledgeable audience.

ACCESSIBLE The writer of the policy brief should facilitate the ease of use of the document by the target audience and therefore, should subdivide the text using clear descriptive titles to guide the reader.

PROMOTIONAL The policy brief should catch the eye of the potential audience in order to create a favourable impression (e.g. professional, innovative etc) In this way many brief writers many of the features of the promotional leaflet (use of colour, use of logos, photographs, slogans, illustrative quotes etc).

PRACTICAL AND FEASIBLE The policy brief is an action-oriented tool targeting policy practitioners. As such the brief must provide arguments based on what is actually happening in practice with a particular policy and propose recommendations which seem realistic to the target audience

HANDOUT 2.2:

Policy Brief Structure & Tips for Writing Effective Policy Briefs

TIPS FOR HONING YOUR POLICY BRIEF:

7 Steps for a compelling Policy Brief (Lifted from Young and Quinn, n.d.)

• **Issue:** examine the issue you will be dealing with. Answer these questions: is the issue general or specific? How general/specific?

• **Audience:** take your primary audience into serious consideration. Your brief should be tailored to the needs of your audience. It makes a fundamental difference for how you must frame your analysis and your recommendation. Is your audience an individual (i.e. Prime Minister) or an organization (i.e. the Government as a whole)?

• **Actors:** identify the relevant actors for the issue you are dealing with. This is an essential step, since you will have to analyze their interests in order to make sensible and viable policy recommendations. Identifying the relevant actors is also essential to produce a good assessment of the context and of the interests that are plug into the issue.

• **Interests:** once you have identified the relevant actors, it is necessary to analyze their interests. What are the actors' interests? Which of the relevant actors have similar interests to your audience? Which ones have different interests? How different? This step is important both for the context part of your brief and for the critique of policy options/policy recommendations. Without a clear identification of the actors involved in the issue and their interests, your brief will result vague, and therefore not useful.

• **Recommendations:** your policy recommendations should reflect the above analysis. Remember that, according to the issue and the audience, your recommendation(s) might not suggest the best policy, but instead the most viable one. This should not limit your recommendation to just compromise policies. If you want to recommend radical change, you can; remember though that such radical action has to be implemented in some ways.

• **How-To:** the last step is to suggest your audience the way to 'sell' the policy to its public (the public could be other members of the organizations, voters, other parties, etc.). This last step helps your audience build support/consensus to implement the policy you recommended.

• **Jazzin'it Up:** Making the policy brief visually appealing with photographs, clear and simple info-graphics /illustrations.

Step 1: The introduction section

The introduction should leave the audience with a clear sense of the problem and draw them further into the policy brief. The Introduction should set up the rest of the document to clearly convey the argument.

- ✓ The introduction should set up the rest of the document by stating the argument upfront
- ✓ Define ”why” the brief is being written (what is the problem?)
- ✓ Describe the urgency (why now)
- ✓ Describe the key questions and analysis of the conclusions
- ✓ Describe what is at stake
- ✓ Remember to keep in mind the target audience

There are 4 areas to cover in the introduction –1) the problem, 2) the urgency of addressing the problem, 3) key questions about addressing the problem, and 4) what would happen if this problem is not addressed.

EXERCISE 2.2a: Incremental Steps for Building the Policy Brief – STEP 1: INTRODUCTION SECTION. Worksheet 2.2

Step-by-step process for crafting the policy brief:

- What is the problem?
- What is the urgency?
- What are the key questions?
- What is at stake?

OBJECTIVES

to work as a sub-team to craft the introduction section of the policy brief which is the set-up for the whole document by stating the argument (need for action) upfront.

Worksheet 2.2: provides guidance as to how to write the introduction. First, set-up the argument (may be combined with problem), then state what the problem is, indicate why this is an urgent issue, and highlight what is at stake if this is not addressed. Continuing with the example of the sandbar shark as a representative species, the worksheets for this section all provide an example of how we would construct the different parts of the brief.

WORKSHEET 2.2:

Profiling Your Target Audience

7. The Best Solution(s) for Addressing Each Why (minimum one and maximum 3 solutions):

Your introductory section should set-up the rest of the policy brief by stating the argument upfront

	COMPONENTS OF YOUR INTRODUCTION	CRAFT YOUR LANGUAGE
a. Define why you are writing the policy brief – what is the problem (your argument)		
b. Describe the urgency (why now)		
c. Describe the key questions and analysis of your conclusions		
d. What is at stake if these recommendations are not implemented		

e. Now merge these statements into a single introduction:

Remember to keep in mind your target audience!

Step 2: The approach and results section

This section is of particular importance because it describes the reasoning behind the policy recommendations. This section really describes the problem that the recommendations are intending to solve. In the "Approaches and Results" section, it is very important to avoid jargon and overly technical language. Focus on the highlights and benefits of the research.

EXERCISE 2.2b: Incremental Steps for Building the Policy Brief – STEP 2: APPROACH AND RESULTS SECTION. Worksheet 2.3.

Step-by-step process for crafting the policy brief:

- Provides a summary of the facts
- Describes issue and context
- Describes research and analysis
- Highlights benefits and opportunities

OBJECTIVES

to work as a sub-team to craft the supporting information (data) in a non-technical manor and give validity to the argument.

WORKSHEET 2.3:

STEP 2: Crafting the Approach and Results Section to Your Policy Brief

1. Start by answering the following questions:

	COMPONENTS OF YOUR APPROACH AND RESULTS SECTION:	CRAFT YOUR LANGUAGE
a. Summary of facts and disclosure on limitations of data		
b. Describe issue and context (the setting)		
c. Describe research and analysis		
d. Highlight benefits and opportunities		

e. Now merge these statements into a single Approach and Results Section:

Remember to keep in mind your target audience!

EXAMPLE OF AN APPROACH AND RESULTS SECTION:

Step 3: The conclusions and recommendations section

This section should clearly connect the dots between the data and the policy recommendations. The goal is to be convincing but ensure that the analysis is balanced. Explain both the findings and limitations of the research on this issue. This is the time to market the recommendations by using active language and strong assertions. Explain the findings in terms of how they translate to concrete realities (not theoretical abstractions). In this section first describe a bit of the setting then ease into the recommendations. Then layout each of the recommendations by stating who they are directed at – in our example case study this is the government of Tunisia to address policy directed at small-scale fisheries. Then move onto the specific recommendations. Finally, for the "recommendations" section explain how this can work – and in doing so, make it a more supportable set of recommendations for the target audience.

EXERCISE 2.2c: Incremental Steps for Building the Policy Brief –
STEP 3: CONCLUDING RECOMMENDATIONS SECTION. Worksheet 2.4

Step-by-step process for crafting the policy brief:

- Interpret the data to support recommendations
- Aim for concrete conclusions and examples
- Express ideas using strong assertions
- Ensure ideas are balanced and defensible
- If original hypothesis was abandoned, explain why

OBJECTIVES

to work as a sub-team to craft well supported, clearly articulate and sensible recommendations on how to address impacts on biodiversity.

WORKSHEET 2.4:

STEP 3: Crafting the Concluding Recommendations Section to Your Policy Brief

1. Start by answering the following questions:

This is the centerpiece of your policy brief so make it clear, concise and specifically pointed towards the recommendations you are making on how to address impacts to biodiversity as signified by your representative species.

	COMPONENTS OF YOUR CONCLUDING RECOMMENDATIONS SECTION:	CRAFT YOUR LANGUAGE
a. Supporting data for your recommendations (build the foundation)		
b. Concrete conclusions and examples		
c. Use strong assertions as to why this is the best approach		
d. show that your recommendations are balanced and defensible		

e. Now merge these statements into a single Concluding Recommendations Section:

Remember to keep in mind your target audience and don't use jargon!

EXAMPLE OF AN CONCLUDING RECOMMENDATIONS SECTION:

Step 4: The executive statement

This final step of crafting the policy brief is the "executive statement" – which is a summary statement of all the previous 3 sections crafted for the policy brief. The executive summary will be placed at the very top of the policy brief so it is the first thing that the target audience will read- but is always written last. It can either be written as continuous prose or bullet points.

EXERCISE 2.2d: Incremental Steps for Building the Policy Brief – STEP 4: EXECUTIVE STATEMENT. Worksheet 2.5

Step-by-step process for crafting the policy brief:

- Distill the essence of the brief
- Provide an overview for busy decision-makers
- Draw your audience in so they want to read more
- Put at the top of the first page

OBJECTIVES

to work as a whole team to craft the distillation of all the other three parts of the policy brief into an executive summary that will be the first piece of information in the policy brief – front and center.

WORKSHEET 2.5:

STEP 4: Crafting the Executive Statement Section to Your Policy Brief

1. Start by having each team narrow down their policy section and summarize into 3 bullet points for each section

a. Introduction Section

b. Approach and Results

c. Concluding Recommendations

2. Take two out of the three main points from each section and craft a bulleted Executive Statement

Bulleted Executive Statement:

3. Knit these 6 main bullet points into a knitted-together Executive Statement paragraph

Executive Statement in paragraph format:

Remember this is the first thing your audience will read at the top of your policy brief. It may be the only thing they ready so make it concise and cover all your main points!

EXAMPLES OF AN EXECUTIVE STATEMENT:

PART 3 DEVELOPING THE POLICY BRIEF

Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

Making your policy brief stand out

OBJECTIVES

The objective of this section is to learn to use some basic marketing tools to grab the audiences' attention and lead them to the singular policy conclusion that needs to be decided upon.

Once the text for your policy brief is written and assembled, it is time to think about the presentation of the brief. The focus should be narrowed down, and then the policy brief should be jazzed up using dynamic language and visual representations.

Grab attention, emphasize key points, and show the audience why this is important:

- ✓ Bring in the visuals, don't leave anything up to the imagination
- ✓ Draw attention to and highlight the main points
- ✓ Provide a visual representation of the supporting data
- ✓ Put the recommendation(s) front and centre

Headlines and Section Titles

These should draw the reader into the story. The aim is for the target audience to sit up and take notice. One way to do this is through developing titles and subtitles that draw attention.

- A title should read like a news headline and draw the reader into the policy brief (remember who your target audience is)
- Subtitles should read like a roadmap, letting your audience know exactly where they are
- Use dynamic verbs
- Questions can pique curiosity
- Remember be enticing but don't dramatize. There is no need to use sensationalism in a policy brief but provide enough of a hook to make the reader want to continue reading.

BOX 4 Here are some examples of more eye-catching headlines and section titles that draw the reader into the story

- **Policy Brief Title:** ON THE ROAD TO EXTINCTION – Mediterranean Governments Have Fallen Short in Their Obligations to Protect Shark Species
- **Executive Summary:** Seeking Sandbar Shark Bycatch Solutions That Work
- **Introduction:** Why Sharks are So Vulnerable to Human Interactions
- **Approaches and Results:** Collateral Damage from Fishing
- **Concluding Recommendations:** Working with Fishers on Modifying Gear and BMPs Shows Great Promise

Sidebars

Sidebars help add depth to the story and are another way to catch the eye of the reader and emphasise key points.

- Sidebars add an extra dimension to the main discussion points
- Another "hook" to bring the reader into the policy brief
- Sidebars should be:
    - short
    - descriptive
    - stimulating (pose questions)
    - highlight a specific piece of information
    - visually distinctive (set apart from the rest of the text)

Charts, Photos, Graphics

Data points should be creative, giving a visual way to tell the story. This can be achieved using graphs, charts, and photographs. Graphs however, can sometimes be hard to both read and/or interpret. In general, infographics, pie charts and bar graphs are easier to read than tables as graphics simplify data. Captions can be used to explain content.

Handout 2.3: gives an example of a jazzed-up version using headlines, photos, and graphics to help communicate more effectively and gain the readers' attention.

The final step

The final step of the process is to check how the policy brief is holding up. This step is critical before sending the brief out to the decision maker.

Follow the below steps and ask the following questions:

- Conduct a 20 second test – what stood out?
- Does it speak to the target audience?
- Is there any jargon that needs to be cleaned up?
- Is there more data than is needed to tell the story and support the position?
- Check soundness of arguments, proof and persuasion
- Build a Q&A package to accompany the policy brief
- Look backward, plan forward

Worksheet 2.6: will also help evaluate the policy brief.

HANDOUT 2.3:

ON THE ROAD TO EXTINCTION:
Mediterranean Governments Have Fallen Short in Their Obligations to Protect Shark Species

A POLICY BRIEF FOR THE MINISTRY OF THE ENVIRONMENT

Seeking Sandbar Shark Bycatch Solutions That Work with Fisherman

The Mediterranean Sea is an extinction hot spot for sharks and rays, with at least half of all species being threatened. The sandbar shark is amongst the most threatened species and is declared endangered (EN) in the Mediterranean according to the IUCN Red List of Threatened Species. One of the largest remaining nursery grounds for the sandbar shark is in Tunisia's Gulf of Gabes, which is also the most important fishing area of the Tunisian fishing fleet. Due to their size and behavior, sandbar sharks are often victims of overfishing, largely taken as bycatch. Unless this trend is reversed, it is expected that the sandbar sharks will become extinct in the Gulf of Gabes by 2030. A new study from IUCN identifies a four-fold approach to addressing the problem, in consultation with fisherman, which has been tried and tested in at least 4 regions of the globe and includes: 1) implement sandbar shark catch monitoring and data collection, 2) regulate gear types, 3) Install Best Management Practices, and 4) provide education on safe shark release.

Why Sharks are So Vulnerable to Human Interactions

- ✓ Reproductive maturity of sharks does not occur until 10-13 years
- ✓ Due to their size and behavior they are often victims of overfishing

Sharks remain vulnerable and despite their IUCN Red Listing since 2007, more than 50% of sharks and rays native to the Mediterranean are at high risk of extinction due to overfishing. The sandbar shark is considered amongst the most threatened species, with important nursery grounds located in Tunisia's Gulf of Gabes. In order to reverse this trend of moving towards possible extinction by 2030, is the Tunisian government willing to support catch monitoring and data collection, regulate gear types and establish best management practices? The conclusion of the 30-member IUCN Shark Specialist Group is that a 4- pronged approach is imperative, and without immediate action what is at stake is this loss of top predators could hold serious implications for the entire Mediterranean ecosystem, greatly effecting food webs throughout the region.

Working with Fishers on Gear Modifications and BMPs Shows Great Promise

RECOMMENDATION 1: Data Collection
Take action on collecting reliable statistics on landings and bycatch of sharks should be a priority for sandbar shark conservation

RECOMMENDATION 2: Gear Regulations
a) requiring the use of circular hooks rather than J-hooks: b) requiring the use of monofilament snoods which sharks can more easily cut; c) requiring the use of small magnets of steel alloy

RECOMMENDATION 3: Further Mitigation
a) eliminate night time longline fisheries and plunge hooks deeper; b) reduce the time of setting; c) avoid dumping garbage, viscera and unmarketable bycatch into fishing areas

HANDOUT 2.3:

ON THE ROAD TO EXTINCTION:
Mediterranean Governments Have Fallen Short in Their Obligations to Protect Shark Species

A POLICY BRIEF FOR THE TUNISIAN OF THE ENVIRONMENT

RECOMMENDATION 4: Safe Release

Provide information on prompt and safe release of incidentally captured sharks to reduce stress and injury, while maximizing the safety risk to fishers

Working with Fishers on Gear Modifications and BMPs Shows Great Promise

Shark species in the Mediterranean are incidentally caught as bycatch. In the Mediterranean Sea, shark catches represent only 1.15 percent of the total landings (Statistic FAO 1980–2015). A decline in shark species landings has been observed while fishing effort has generally increased. According FAO statistics on sharks, the catches show a decreasing trend: 26000 tons in 1983–1984 and 14,000 in 2015. However, FAO data reveals that Tunisia and Libya contribute more than 70% of the shark production for the southeastern Mediterranean over the past 7 years, indicating the sandbar shark populations are still viable in Tunisia.

RECOMMENDATIONS: Small-scale fisheries in Tunisia, represented by set nets and bottom longline fishing gear, will be the focal point for these recommendations. Small-scale fisheries operate mainly in nearshore areas and represent a significant source for mortality for early-life stages of sharks, as well as threatening non-targeted nearshore megafauna. The following 4 recommendations are directed at the government of Tunisia and are found to have insignificant economic impacts or inconveniences on small-scale fisheries in Tunisia.

Collateral Damage to Gulf of Gabes Sandbar Shark Populations from Small-scale F

Analysis of Threat: An analysis of threat levels across all sharks, rays and chimaeras has revealed the Gulf of Gabes as a ”marine biodiversity hot spot” of significant biological importance and the most important fishing area of the Tunisian fishing fleet. The Gulf of Gabe provides an important nursery area for the sandbar shark, as well as winter and foraging grounds for the loggerhead turtle; suitable habitat for fish species such as grouper and tuna; and, cetaceans such as bottlenose dolphin. Status uncertainty tends to be greatest along North African coasts, emphasizing the need for further research in this part of the Mediterranean region. By assuming varying fractions of the Data Deficient species are threatened, the overall level of threat ranges from 53% (if none of the DD species are threatened) to 71% if all DD species are threatened.

Overfishing: The principal driver of decline and local extinction is overfishing. Most species are taken as retained valuable bycatch in small-scale and large-scale trawl and net multispecies fisheries. Additionally, the wide use of non-selective fishing practices and wide spread habitat destruction are leading to dramatic declines in sandbar sharks.

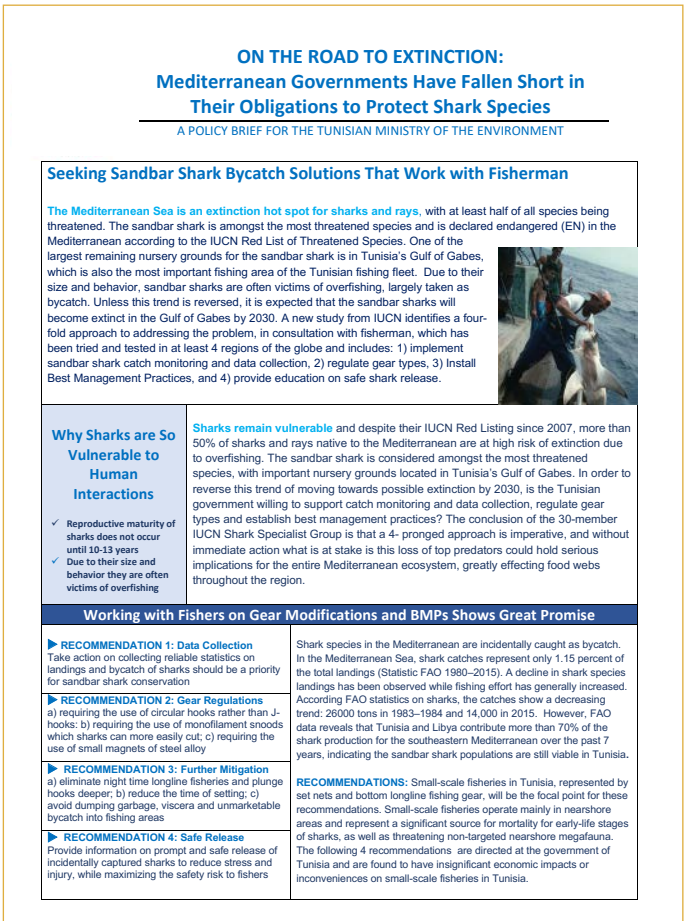
HANDOUT 2.3:

ON THE ROAD TO EXTINCTION: Mediterranean Governments Have Fallen Short in Their Obligations to Protect Shark Species

A POLICY BRIEF FOR THE MINISTRY OF THE ENVIRONMENT

Land Surveys: Data were collected through landing surveys, interviews and a literature review, to assess the following potential management options for their technical effectiveness and socio-economic feasibility: (1) catch monitoring; (2) gear restrictions; and (3) a quota system. The study provides the first evidence-based and nuanced understanding of shark bycatch management for this fishery, and suggestions for future conservation and research efforts. Overall, the framework facilitates a holistic assessment of bycatch management to guide decision-making. Integrating such case studies across different species, fisheries and sites would support the formulation of a meaningful management plan for elasmobranch fisheries in the Gulf of Gabes.

Stock Assessments: Stock assessments are underway, essential precursors to set catch limits for those more productive species that could be brought into sustainability. In 2010 and 2011 the General Fisheries Commission for the Mediterranean (GFCM), the regional fisheries management organization for the Mediterranean Sea, adopted ad hoc measures to reduce the bycatch of pelagic sharks such as Thresher, Mako and Hammerhead sharks, which is already showing promise of reducing bycatch and is applicable to sandbar sharks in the Gulf of Gabes.



ON THE ROAD TO EXTINCTION:
Mediterranean Governments Have Fallen Short in Their Obligations to Protect Shark Species

A POLICY BRIEF FOR THE TUNISIAN MINISTRY OF THE ENVIRONMENT

Seeking Sandbar Shark Bycatch Solutions That Work with Fisherman

The Mediterranean Sea is an extinction hot spot for sharks and rays, with at least half of all species being threatened. The sandbar shark is amongst the most threatened species and is declared endangered (EN) in the Mediterranean according to the IUCN Red List of Threatened Species. One of the largest remaining nursery grounds for the sandbar shark is in Tunisia's Gulf of Gabes, which is also the most important fishing area of the Tunisian fishing fleet. Due to their size and behavior, sandbar sharks are often victims of overfishing, largely taken as bycatch. Unless this trend is reversed, it is expected that the sandbar sharks will become extinct in the Gulf of Gabes by 2030. A new study from IUCN identifies a four-fold approach to addressing the problem, in consultation with fisherman, which has been tried and tested in at least 4 regions of the globe and includes: 1) implement sandbar shark catch monitoring and data collection, 2) regulate gear types, 3) Install Best Management Practices, and 4) provide education on safe shark release.

Why Sharks are So Vulnerable to Human Interactions

- ✓ Reproductive maturity of sharks does not occur until 10-13 years
- ✓ Due to their size and behavior they are often victims of overfishing

Sharks remain vulnerable and despite their IUCN Red Listing since 2007, more than 50% of sharks and rays native to the Mediterranean are at high risk of extinction due to overfishing. The sandbar shark is considered amongst the most threatened species, with important nursery grounds located in Tunisia's Gulf of Gabes. In order to reverse this trend of moving towards possible extinction by 2030, is the Tunisian government willing to support catch monitoring and data collection, regulate gear types and establish best management practices? The conclusion of the 30-member IUCN Shark Specialist Group is that a 4- pronged approach is imperative, and without immediate action what is at stake is this loss of top predators could hold serious implications for the entire Mediterranean ecosystem, greatly effecting food webs throughout the region.

Working with Fishers on Gear Modifications and BMPs Shows Great Promise

▶ RECOMMENDATION 1: Data Collection
Take action on collecting reliable statistics on landings and bycatch of sharks should be a priority for sandbar shark conservation

▶ RECOMMENDATION 2: Gear Regulations
a) requiring the use of circular hooks rather than J-hooks: b) requiring the use of monofilament snoods which sharks can more easily cut; c) requiring the use of small magnets of steel alloy

▶ RECOMMENDATION 3: Further Mitigation
a) eliminate night time longline fisheries and plunge hooks deeper; b) reduce the time of setting; c) avoid dumping garbage, viscera and unmarketable bycatch into fishing areas

▶ RECOMMENDATION 4: Safe Release
Provide information on prompt and safe release of incidentally captured sharks to reduce stress and injury, while maximizing the safety risk to fishers

Shark species in the Mediterranean are incidentally caught as bycatch. In the Mediterranean Sea, shark catches represent only 1.15 percent of the total landings (Statistic FAO 1980–2015). A decline in shark species landings has been observed while fishing effort has generally increased. According FAO statistics on sharks, the catches show a decreasing trend: 26000 tons in 1983–1984 and 14.000 in 2015. However, FAO data reveals that Tunisia and Libya contribute more than 70% of the shark production for the southeastern Mediterranean over the past 7 years, indicating the sandbar shark populations are still viable in Tunisia.

RECOMMENDATIONS: Small-scale fisheries in Tunisia, represented by set nets and bottom longline fishing gear, will be the focal point for these recommendations. Small-scale fisheries operate mainly in nearshore areas and represent a significant source for mortality for early-life stages of sharks, as well as threatening non-targeted nearshore megafauna. The following 4 recommendations are directed at the government of Tunisia and are found to have insignificant economic impacts or inconveniences on small-scale fisheries in Tunisia.

Collateral Damage to Gulf of Gabes Sandbar Shark Populations from Small-scale Fisheries

Analysis of Threat: An analysis of threat levels across all sharks, rays and chimaeras has revealed the Gulf of Gabes as a "marine biodiversity hot spot" of significant biological importance and the most important fishing area of the Tunisian fishing fleet. The Gulf of Gabe provides an important nursery area for the sandbar shark, as well as winter and foraging grounds for the loggerhead turtle; suitable habitat for fish species such as grouper and tuna; and, cetaceans such as bottlenose dolphin. Status uncertainty tends to be greatest along North African coasts, emphasizing the need for further research in this part of the Mediterranean region. By assuming varying fractions of the Data Deficient species are threatened, the overall level of threat ranges from 53% (if none of the DD species are threatened) to 71% if all DD species are threatened.

Overfishing: The principal driver of decline and local extinction is overfishing. Most species are taken as retained valuable bycatch in small-scale and large-scale trawl and net multispecies fisheries. Additionally, the wide use of non-selective fishing practices and wide spread habitat destruction are leading to dramatic declines in sandbar sharks.

Land Surveys: Data were collected through landing surveys, interviews and a literature review, to assess the following potential management options for their technical effectiveness and socio-economic feasibility: (1) catch monitoring; (2) gear restrictions; and (3) a quota system. Our study provides the first evidence-based and nuanced understanding of shark bycatch management for this fishery, and suggestions for future conservation and research efforts. Overall, our framework facilitates a holistic assessment of bycatch management to guide decision-making. Integrating such case studies across different species, fisheries and sites would support the formulation of a meaningful management plan for elasmobranch fisheries in the Gulf of Gabes.

Stock Assessments: Stock assessments are underway, essential precursors to set catch limits for those more productive species that could be brought into sustainability. In 2010 and 2011 the General Fisheries Commission for the Mediterranean (GFCM), the regional fisheries management organization for the Mediterranean Sea, adopted *ad hoc* measures to reduce the bycatch of pelagic sharks such as Thresher, Mako and Hammerhead sharks, which is already showing promise and is applicable to sandbar sharks in the Gulf of Gabes. ■

Breakdown on Landings Data in the Gulf of Gabes

Mediterranean Shark Bycatch Impacts on Biodiversity

WORKSHEET 2.6:

Evaluating Policy Briefs

Rate each of the policy briefs using criteria provided down the left hand side of the table below. Across the top of the table are the numbers assigned to each of the presenting teams. Your will rate each criteria on a 1-10 basis. 1 = did not meet these criteria, 5 = met the criteria, but leaves room for improvement, 10 = outstanding job.

RATING CRITERIA	TEAM 1	TEAM 2	TEAM 3	TEAM 4
CONTENT				
1. Did the content cover all 4 areas relevant to a policy brief (Executive Statement, Introduction, Approaches & Results, Recommendations)?				
2. Did it speak directly to the target audience in terms of what their interests might be?				
3. Did it avoid the use of jargon and highly technical language?				
4. Was there appropriate and adequate to tell the story of the "issue" and support the recommendations?				
5. Were the arguments sound and persuasive in terms of the need to address this issue?				
JAZZIN' IT UP!				
6. Were there headlines that drew you into the story?				
7. Were there visual representations of the problem?				
8. Was some of the key data graphically depicted?				
9. Were key points highlighted in some way?				

Building a conservation campaign to amplify the message

OBJECTIVES

The objective of this final section is to highlight how a policy brief can sit inside a wider conservation campaign and why a campaign is key to creating behaviour change

Often a policy brief is accompanied by a parallel conservation campaign. While a policy brief is usually directed at decision makers; a conservation campaign is typically directed specifically at the stakeholders whose behaviour we would like to see change.

Identity Campaigning

In "identity campaigning" the goal is to try and understand what leads an individual to make a change – which really means understanding their values and life goals. "Identity", more than anything else, determines how people make choices about their lives – including their attitudes and behaviours. One's own values usually drive our behaviour. Many studies have established substantial correlation between people's values and their corresponding behaviour. However, people's values are often hidden and not expressed outwardly. So, the question remains, if the core values of an individual or group cannot be seen, how can they be reached?

Story Telling

One way to connect to values is by using some of the tools that resonate with the culture. Use personal stories to make connections. Just opening up and being ourselves opens many doors. By using the language, the metaphors, the humour, and the images relevant to the culture or values of a person or group of people, while framing our own story within this context – is a direct way to make this connection. One place to look for these stories that are laced with values is within the advertising industry.

It's Marketing, Pure and Simple

Nike shoes and other products present a classic case study to learn from. Nike founder Philip Knight with his coach at University of Oregon are the masters of storytelling (and appealing to one's values). Phil started Nike because he was an athlete that wasn't happy with his track shoes. This became part of the marketing story of Nike.

The coach and the athlete venture out to create a better product – from very humble beginnings. The story and the values are emerging. And so, the story continues with the evolution of the running shoe and how they were continually striving to make a better product for all athletes – see how the values and the story are intertwined. Up to this point they have never asked anyone to buy their shoes – they are just telling their story. Then Nike starts marketing its mission statement: Bring inspiration and innovation to every athlete in the world. If you have a body, you are an athlete. So now they are appealing to everyone, athletic or not. The perfect evolution of a marketing campaign. And they never directly pushed people to buy shoes. NEVER! Nike sells 120,000,000 shoes a year by accessing peoples' values, and they never directly ask you to buy their shoes. Nike tells stories from a "value" platform, and consequently sells shoes.

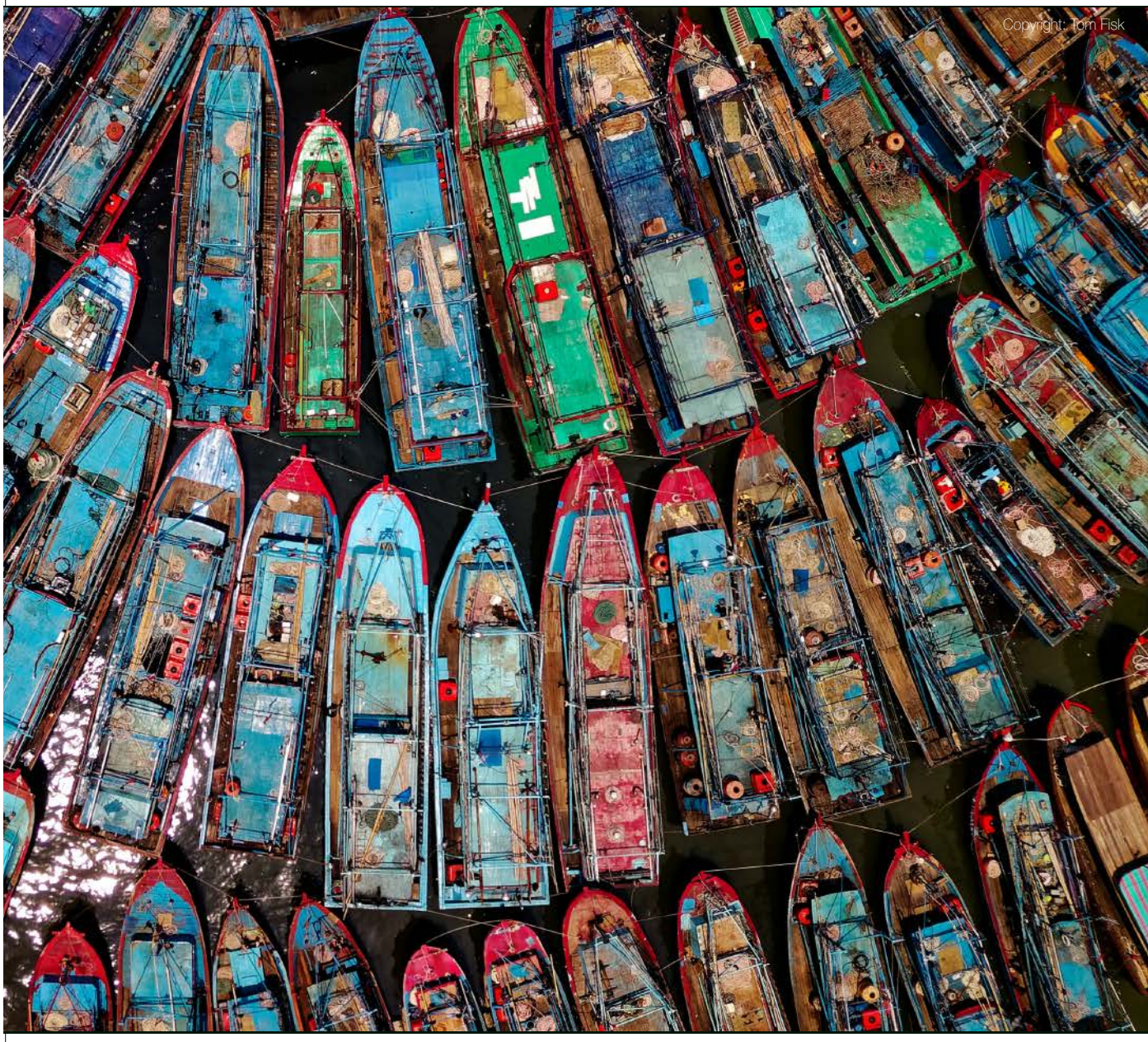
PART 3 DEVELOPING THE POLICY BRIEF

Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

Building a conservation campaign to amplify the message

Imagine how this same approach can be applied to advocating a policy brief to decision makers, while appealing to the values of stakeholders whose behaviour is impacting the representative species that requires change/protection. A conservation campaign can be developed to complement and amplify the effects of a policy brief – whether through social media outlets, billboard advertising or PSAs.

Handout 2.4: provides guidance on building a conservation campaign.



HANDOUT 2.4:

Framework for Building a Conservation Campaign

1. DEFINING THE CAMPAIGN

Campaign Theme

Campaign Objective

Target Audience(s)

Campaign Partners

2. CAMPAIGN ANTICIPATED OUTCOMES (on human level)

Building Awareness of Issue

Value Change

Target Audience(s)

Change in Regard to Issue

3. MESSAGING APPROACH

Positive (benefits of healthy environment, protection or reversing behavior)

Negative (what we will loose if we don't address this issue)

Both positive and negative approach

4. CAMPAIGN VERBAL MESSAGES:

1-

2-

3-

4-

5. CAMPAIGN VISUAL MESSAGES:

1-

2-

3-

4-

HANDOUT 2.4:

Framework for Building a Conservation Campaign

6. MEDIA OUTLETS:

Television:

Radio:

Print:

Social Media:

Other:

7. CAMPAIGN MATERIALS:

- [ ] Press Kit
- [ ] Fact Sheet
- [ ] Photo CD
- [ ] Press Releases
- [ ] B-Roll
- [ ] Media Alerts
- [ ] Brochures
- [ ] Public Service
- [ ] Announcements
- [ ] Advertising
- [ ] Bill Boards
- [ ] Signage

8. CAMPAIGN EVENTS:

Target Audience:

Message:

Media:

Venue:

In conjunction with an other event:

9. MEASURES OF SUCCESS:

1-

2-

3-

4-

PART 3 DEVELOPING THE POLICY BRIEF

Policy and advocacy plan development for addressing a multi-faceted approach to addressing impacts from fisheries activities on biodiversity

Prologue

You have been provided with all the basic steps to work through problem solving and writing a policy brief, this guidebook will serve as guidance when you start the process to write your own briefs. Please, remember, the fundamental rule is to take the necessary time. Be sure to give ample attention to the problem identification process and dig deep into those layers to find the root causes.