



**Preparing the Research & Innovation Core for Mission Ocean, Seas & Waters**

## Prep4Blue Role-play game

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**Authors:** Susana Bastón Meira (CETMAR), Lucía Fraga Lago (CETMAR) & Justine Brossard

**Collaborators:** Massimiliano Pinat, Christophe Gamelin & Maïssa

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## Introduction

This role-playing game was developed for the Prep4Blue Atlantic and Arctic Pilot Stakeholder Assembly, held in Bordeaux in November 2024, supporting the Mission Restore Our Ocean and Waters implementation and providing a model for future stakeholder engagement processes.

The game is based on two scenarios aimed to grasp the key necessary steps to successfully run stakeholders' assemblies and develop creative ideas for your specific context.

- 1) The **scenario 1** relates to the validation of a Nature-based Solution to mitigate a coastal erosion for which a hybrid methodology has been chosen mixing a collaboration mode and a participation mode a solution will be proposed to the stakeholders.
- 2) The **scenario 2** relates to the elaboration of a Management Strategy for a Marine Protected Area (MPA) that differs from the scenario 1 in terms of methodology as the purpose of the workshop is to cocreate from scratch a Management Strategy.

## Recommendations

- At the beginning of the game, the moderator must ask for a volunteer to report the conclusions of the game
- It is advisable that the room would be adequate to participants being sitting in a circle (without a table in the middle) and a paperboard in which the different steps of the methodology will be explain and feedback of the participants will be noted.
- A paperboard or screen to explain steps and/or take notes on the discussion, voting and proposed solutions
- A lesson learned from this Assembly was that at least four hours are needed to undertake the game. The timing for each step remains indication and must be assessed according to the number of participants and the complexity of the chosen scenario.

The following methodology has been designed for the specific needs of the role-playing game. There are also instructions for moderators.

## Instructions for Prep4Blue Role-playing game

To foster co-creation and deliberative democracy towards the Mission Restore Our Ocean and Waters' objectives

### Objective of the game

The goal is to address result-oriented discussions leading to actionable solutions.

### Materials

- Game scenario descriptions
- Stakeholder's characters cards and stickers
- Button stickers
- Voting cards (green, orange, red)
- Illustrative cards e.g. Dixit cards
- Digital screen or a Paper board

### Game scenarios

Two scenarios are provided with printable documents as a summary of the context, detailed descriptions of characters and stickers for each participant to identify its role:

- The preparation of a **collaborative project for the restoration of oyster reefs** focusing on developing innovative solutions to combine the restoration project with the different activities of the fictional coastal area.
- A **Marine Protected Area Strategy** emphasizing on co-creating a management strategy from scratch

### Role-Playing game methodology

- Each group will have between 5 and 10 people.
- It is advisable that chairs are arranged in a circle in a spacious room, ensuring visibility of all participants and the digital screen or paperboard.
- A moderator, a rapporteur and a timekeeper have to be assigned.

- Players must choose a role to endorse from the different characters of the scenario. At least one representative of each group of the penta-helix must be played, which are
  - **Academia** (universities and research institutions)
  - **Industry** (business and private sector)
  - **Government** (public policy, governance)
  - **Civil society** (the public, NGOs non-focused on environmental aspects, media)
  - **The environment** (Ecologist NGOs and environmental agencies)

The game is structured as follows:

- scenario introduction,
- stakeholder expectation mapping,
- identification and ranking the stakes and needs
- co-creation of solution(s), and
- iterative voting.

## Voting system

The voting system serves several important purposes:

- **To engage stakeholders' responsibility in clearly expressing their opinions:**
  - Green card: I fully agree
  - Orange card: I can accept it
  - Red card: I fully disagree
- **To encourage quieter stakeholders to express themselves**
- **To provide an opportunity to address objections (Red cards):**
  - To understand the reasons behind the blocking points
  - To bring up new ideas/proposals

When voting, each group has one vote. If there is more than one representative from any group, they must come to an agreement on how they will vote.

After the first vote, the proposal will be amended, and a new vote will take place.

Therefore, two voting sessions are scheduled during the role-playing game:

- After identifying a common base of stakes and needs
- At the end of the game

### **End of the game**

After the second voting all participants must build an agreement on how to proceed, which serves to the rapporteur to explain the outcomes of that group.

### **Extended version**

Play the joker card: The role-playing game can be enriched with the interruption of a new participant during the workshop:

- someone not invited who insists on joining the group
- someone invited but coming late during the workshop, etc.

Such a situation could occur in real life and become part of the game for training purposes.

This role-playing game can be adapted to any other co-creation scenario of your choice, in which case maybe some of the characters of this version can be used or new ones needed to be developed, but the methodology will be fully applicable.

**Enjoy the journey of co-creation and stakeholder empowerment!**



## Scenario 1: Oyster restoration

### Context about Oyster restoration

The flat oyster *Ostrea edulis* is a European native species that once covered vast areas in European coastal waters.

By the mid to late 1800s, flat oyster populations were largely damaged due to overfishing, often beyond recovery. More recently, the emergence of parasites combined with the proliferation of various predators and many additional, human-induced stressors have caused a dramatic decrease in the last remaining flat oyster populations. Today, this species has disappeared from many locations in Europe and is registered on the OSPAR14 list of threatened and/or declining species.

Although the species and its associated habitat have collapsed throughout Europe, it is not extinct. A growing number of restoration initiatives are under way to return European native oysters and thus the essential ecological functions and ecosystem services they supply, to European marine ecosystems in sufficiently significant densities.

How and why European oyster reefs can be considered as relevant Nature based solution, which should thus be restored?

- They can reduce coastal erosion processes by dissipating wave energy through the formation of shallows, provide shelter and functional feeding, spawning and nursery grounds for organisms impacted by shifting environmental conditions, filter water and buffer biogeochemical cycles.
- Oyster beds and reefs could also play a key role in global climate regulation through carbon sequestration into underlying sediments.
- They are recognized as ecosystem engineers harboring an important number of species which make these organisms key for the conservation of biodiversity and ecosystem functioning.

### Scenario description

The Atlantic region of Kerlifornia in France hosts several of the remaining flat oyster populations of the country and appears as the best area to experiment an important restoration activity, to be largely replicated in Europe. Convinced by the recommendations from the Native Oyster Restoration Alliance (NORA), researchers from the University of Kerlifornia have the idea of building an important project in the

famous Bay of Houatche to restore the oyster reefs, engaging all local stakeholders in this ambitious initiative!

However, such a project requires significant dialogue among all stakeholders, and their engagement can be hindered by the need to reassess various uses of maritime space to implement the new initiative. It might notably restrict the available space for aquaculture farms and surfing activities.

Taking into consideration various socio-economic aspects and stakeholders' interest, several questions therefore remain to unlock potential obstacles for the creation and implementation of the project.

The Bay of Houatche faces significant challenges due to climate change, particularly rising sea levels. This picturesque bay is home to local fishing communities, aquaculture producers, and especially oyster farmers, who have relied on its resources for generations. Unfortunately, the decline of the European oyster reefs has impacted biodiversity and reduced fish populations and water quality.

These reefs once played a crucial role in filtering seawater, benefiting both the oyster farms and aquaculture, but their loss has led to a decline in production. Local fishermen now contend with the repercussions of past fishing practices that contributed to the degradation of this vital ecosystem. However, the recent release of a popular film featuring Kerlifornian surfers has sparked a surge in tourism in the Bay of Houatche, particularly for surfing activities. This has drawn a wealthy demographic from the bustling city of Losse-en-Geletz, many of whom are investing in second homes to enjoy the stunning views.

While this influx of affluent residents has led to rising property prices and some discontent among local inhabitants, it has also positively impacted the local economy, boosting the GDP of Kerlifornia by 10%. New bars, restaurants, hotels, and surf schools have opened in response to this increased interest. Additionally, some investors have approached the municipality of Houatche about a real estate project to accommodate the growing demand for tourist lodging. However, this initiative is currently on hold, as concerns mount over the potential for the bay to be underwater in the next 30 years....

Researchers from the University of Kerlifornia are very happy that on Wednesday 20th of November, they will have the opportunity to discuss this potential restoration project with local stakeholders, during a thematic meeting of the Sea Parliament of Kerlifornia entitled "nature-based solutions for marine and coastal ecosystems restoration".

Ahead of the meeting, different groups of stakeholders from the Bay of Houatche received the invitation with a short description of the restoration project, its ecological interests and potential consequences for the activities of the Bay:

- Certain areas might be designated as off-limits to fishing, and the available space for aquaculture ponds could be reduced. While these measures are essential for the long-term health of the ecosystem, they pose challenges for local fishermen and aquaculture producers who depend on these resources for their livelihoods.
- Nevertheless, researchers are committed to involving local stakeholders in the restoration process. They would like to closely collaborate with oyster farmers in the design of monitoring the restored oyster reefs.
- However, the project might face potential challenges related to increased tourism, particularly during the summer months when visitor numbers peak. Scientists from the University of Kerlifornia measured a high number of marine litters, chemicals from sunscreens, and other pollutants, such as cigarette butts, which might threaten the integrity of the newly restored oyster reefs. Researchers have raised concerns with the city of Houatche about these issues, highlighting the need for effective management strategies to protect the delicate ecosystem, and implement their oyster restoration project.

## KEY TOPICS TO BE DISCUSSED

As the project is currently at its development stage, the debate that will take place at the “Sea Parliament” will focus on three main aspects:

### 1. Legitimacy of the project owner:

Although proposed by Researchers from the University of Kerlifornia, the first question relies on the legitimacy of the project leader, especially since one objective would be to upscale this restoration project in Kerlifornia and other areas.

- Research institutes may be suited to experimental projects but not large-scale operational projects.
- Should the management body of a local Marine Protected Area (MPA) be responsible if the project is within an MPA and primarily aims to conserve the species?

- Should it be the local authorities if the ecosystem services benefit the entire community or align with their public interest missions (e.g., coastal protection, water quality management)?
- Should oyster farmers be responsible if the main goal is to maintain a broodstock for spat collection?
- Should fishermen be responsible if the objective is sustainable fishing after restoration?

## 2. Funding:

- Who will be the main investor?
- What role is there for co-management between public and private sectors, public and associations, or other partnerships?

## 3. Explore:

- Innovative solutions to combine the restoration project with the different activities happening in the Bay.

## Characters

Stakeholder selection depends on the specific planning process, the scale and the specific topics of interest. When analysing stakeholders, it is key to cast a wide net, and then to consolidate. It is key to first focus on those **stakeholders that need to be on board**, and to ensure that they are in fact the appropriate representatives. Here there is a list of them, but not all were developed for this specific game.

Fishermen representative	Electrical company
Port authority representative	Ocean and Climate modeller (it could be an expert in fish stocks or any other relevant researcher)
Blue schools	NGO representative
Surf association	Natural Park' director
Sailing federation	Journalist
Oil and gas company	CSOs
Responsible of Tourism	

## Character 1: Phil Coton

NAME: PHIL COTON

PROFESSION: Mayor of the coastal city of Houatche

AGE 45

GENDER Male

LOVE INTEREST: Fishing and playing guitar

FAMILY MEMBERS: He lives with his wife, and he has two sons

### TRAITS

Phil was elected two years ago and is strongly committed to improve the life quality of the inhabitants of Houatche.

He is very conscious of the issues related to the degradation of the marine environment and the negative impacts it has on the community.

Nevertheless, he wants his city to be more prosperous and would thus be in favor of solutions combining environmental protection with economic growth. He notably intends to unlock more investments for the development of the blue economy and the protection of marine and coastal environment.

### ENERGY TO DEFEND ITS POSITION

He will support the restoration project if it benefits the entire community.

### SECTOR VISION AND MISSION

As a public authority, the city of Houatche pursues different missions of public interest, such as protecting the coastline and improving water quality.

The city also aims to ensure the prosperity of its citizens, by providing sustainable jobs and an excellent quality of life.

### SECTOR STRATEGIC GOALS

- ✓ Contribute to the wellbeing of the inhabitants of Houatche
- ✓ Ensure the economic development of the city, securing employment while offering activities for all the population

- ✓ Offer a qualitative and healthy environment to the population

#### KEY POINTS TO DEFEND

- ✓ Strong engagement in the restoration project if it benefits the community
- ✓ Take into consideration the lack of funding
- ✓ Fair balance between public interest missions and the economic prosperity of the community

#### SWOT ANALYSIS FOR PHIL'S STANCE

##### STRENGTHS

- The restoration project can improve the reputation of the bay and the city of Houatche, currently considered a mass-tourism coastal area. It can generate new and more sustainable activities and restore the traditional assets of the Bay (locally produced oysters, excellent seafood, etc.), that local inhabitants are missing.

##### WEAKNESSES

- During Spring and summer, the city and the bay is filled by tourists from other cities and regions. There is a disconnect between the local inhabitants and the tourists. This can be a clear obstacle to the restoration project.

##### OPPORTUNITIES

- Sustainable economic development, further connecting the population with the sea, develop activities that will benefit local inhabitants or regular visitors rather than occasional tourists.

##### THREATS

- The city has a small and limited budget. There is a strong need to identify funding opportunities to finance this project.

## Character 2: Pamela Summer

NAME: PAMELA SUMMER

PROFESSION: Marine biologist

AGE 30

**GENDER** Female

**LOVE INTEREST:** Diving and surfing

**FAMILY MEMBERS:** She lives with her fiancé

#### **TRAITS**

She is passionate about the ocean and has been working for more than 5 years in marine biodiversity restoration projects.

Although she implemented several experimental projects, she never worked on such a large-scale operational project.

She is very keen to collaborate with other stakeholders on this matter.

#### **ENERGY TO DEFEND ITS POSITION**

She will fully support the restoration project as has been proposed by her research unit.

#### **SECTOR VISION AND MISSION**

The mission of this specific unit is to conduct research and provide one of the most advanced scientific knowledge on the status of our oceans and seas. The Unit of marine sciences specialized in marine ecosystems and

biodiversity restoration and conducted many experimental projects in this field.

#### **SECTOR STRATEGIC GOALS**

- ✓ Contribute to the restoration of our marine environment
- ✓ Provide a significant expertise to be shared at EU level
- ✓ Collaborate with other researchers to improve data collection, knowledge and exchange of good practice

#### **KEY POINTS TO DEFEND**

- ✓ Willingness to identify relevant trade-offs with local stakeholders to build this project.
- ✓ The project must be aligned with the strategic goals pursued by the unit of marine sciences and support researchers in their activities
- ✓ Receptive to open dialogue and ready to collaborate

## SWOT ANALYSIS FOR PAMELA'S STANCE

### STRENGTHS

- This potential restoration project would be an excellent opportunity for researchers to test restoration methods of flat oysters in the region of Kerlifornia, as well as conducting monitoring activities of water quality and potentially develop solutions to reduce pollution. This will certainly nurture their research on nature-based restoration measures for coastal climate change adaptation.

### WEAKNESSES

- The need to reassess various uses of maritime space to implement the new initiative. Researchers are not used to implementing large-scale operational projects.

### OPPORTUNITIES

- The dialogue among stakeholders can lead to the creation of a strongly collaborative restoration project, maximizing its efficiency and potential upscaling in other areas.

### THREATS

- Certain activities will have to be reduced, and some stakeholders might feel reluctant to the project. Unlocking funding opportunities might be difficult.

## Character 3: Jason MacBernick

NAME: JASON MACBERNICK

PROFESSION: Oyster farmer

AGE 36

GENDER Male

LOVE INTEREST: Besides his job, he is passionate about literature and intends to write a book about the Bay of Houatche.

FAMILY MEMBERS: He lives alone

### TRAITS



His father and grandfather worked as oyster farmers in the Bay and he is very keen to pursue this traditional activity, despite all the challenges faced by the sector. He really hopes to be able to produce qualitative oysters and sell them to the local restaurants.

## ENERGY TO DEFEND ITS POSITION

He is hesitant to fully endorse the restoration project due to concerns that it may lead to the closure of several areas currently used for oyster farming. However, given the significant challenges his industry faces from the deteriorating marine environment, he may be inclined to support the project if it promises a positive future impact on operations and enhances profitability.

## SECTOR VISION AND MISSION

Produce qualitative oysters

## SECTOR STRATEGIC GOALS

- ✓ Increase its profitability and competitiveness
- ✓ Become the main provider of oysters of the restaurants of the Bay
- ✓ Improve circularity and sustainability of oyster's production

## KEY POINTS TO DEFEND

- ✓ Do not particularly support the restoration project at first sight, due to the fear of losing their oyster farming activity
- ✓ Could support the project if they can benefit from a financial compensation, and if it demonstrates a positive impact for the sector.

## SWOT ANALYSIS FOR JASON'S STANCE

### STRENGTHS

- The project could contribute to the sustainability of their activity, in particular by improving water quality and potentially maintaining a broodstock for spat collection.

### WEAKNESSES

- Oyster producers will have to respect stricter rules in the conduct of their activities, to respect the marine environment. Some available areas for oyster farming might be closed. Their activity can be seriously impacted by the project.

## OPPORTUNITIES

- The project can increase the quality of their products by providing them greater visibility and credibility with their clients, ultimately boosting their profits. During the implementation of the project, oyster farmers could be offered alternative activities or financial compensation as potential support.

## THREATS

- The lack of financial means to compensate for the potential reduction of their activity in the first stage of the project implementation and/or the absence of innovative solutions to combine the oyster reefs restoration with oyster farming.

## Character 4: Brigitte Breizh-dot

NAME: BRIGITTE BREIZH-DOT

PROFESSION: Representative of a Marine environmental NGO

AGE 60

GENDER Female

PROFESSION: She is now retired but previously working as a pet doctor

LOVE INTEREST: Taking care of the animals and gardening

FAMILY MEMBERS: She lives alone with a multitude of animals.

## TRAITS

Born and raised in Houatche, she spent all her life in this coastal city and has been particularly affected by the destruction of the Bay's precious ecosystem and biodiversity.

Particularly engaged in ecology, she is the first one to have raised awareness about the reduction of the flat oyster reefs and then created this environmental NGO.

## ENERGY TO DEFEND ITS POSITION

She favors strict bans over soft compromises. She is fully in favor of the project but do not see it compatible with other economic activities.

## SECTOR VISION AND MISSION

Her NGO's mission aims to preserve marine and coastal ecosystems and biodiversity.

#### SECTOR STRATEGIC GOALS

- ✓ Increase MPAs and reinforce their implementation
- ✓ Restore marine environment and biodiversity
- ✓ Fully preserve marine resources and reduce impactful human activities
- ✓ Foster a sustainable relationship between people and marine environments

#### KEY POINTS TO DEFEND

- ✓ A full restoration project, with a strong limitation of human activities
- ✓ Fully support science-based actions, would accept a compromise only if validated or recommended by scientists.

#### SWOT ANALYSIS FOR BRIGITTE'S STANCE

##### STRENGTHS

- Through this project, the Bay's environment and biodiversity will recover its original status

##### WEAKNESSES

- Several activities might be reduced and certain stakeholders, such as fishermen, oyster farmers and surfers might feel particularly affected and could thus represent a barrier to this future project.

##### OPPORTUNITIES

- Implement for the first time in Kerlifornia a large-scale operational project for the restoration of flat oysters, which can facilitate its upscaling

##### THREATS

- Potential difficulties identifying sources of funding

### Character 5: Kelly Wavy

NAME: KELLY WAVY

PROFESSION: Representative of the Surfer Association of the Bay of Houatche

AGE 25

GENDER Male

PROFESSION: He works remotely for an important startup specialised in AI.

LOVE INTEREST: Passionate about water sports, he practices surf, kite surf almost every day and goes diving with his friends during the weekend. He is originally from Losse-en-Geletz, and he recently bought a house in the bay of Houatche.

FAMILY MEMBERS: He lives alone but hosts many of his friends and cousins in his new house.

### TRAITS

Although he likes to spend time in Losse-en-Geletz, to enjoy its cultural and nightlife, he would like to spend the rest of his life in Houatche and have a positive impact for the community.

However, Kelly has the secret ambition to become a surf champion. As the bay is one of the best surf spots in Kerlifornia, he hopes to be able to continue surfing, despite the restoration project.

### ENERGY TO DEFEND ITS POSITION

He is fully committed to preserving the ecosystem of the bay, but can be very reluctant to any barriers for surf activities.

### SECTOR VISION AND MISSION

The mission of the association is to provide overall support to surfers: information on the weather conditions, best spots, surf shops, surf schools, and ensure that surfers can connect and exchange good practice. Due to the increased number of surf schools and surf shops, the association also contributes to the development of this sector.

### SECTOR STRATEGIC GOALS

- ✓ Raise awareness on marine environmental issues, by promoting healthy carbon neutral activity at sea
- ✓ Support the practice of a water sport
- ✓ Promote an activity with a strong social dimension, targeting the youth

## KEY POINTS TO DEFEND

- ✓ A full restoration project, with a strong limitation of human activities
- ✓ Fully support science-based actions, would accept a compromise only if validated or recommended by scientists.

## SWOT ANALYSIS FOR KELLY'S STANCE

### STRENGTHS

- Oyster reefs have a positive impact on water quality and can clearly improve the quality of the waves. If restored, they might offer excellent reef breaks.

### WEAKNESSES

- Potential restrictions of water sport activities in the Bay throughout the project

### OPPORTUNITIES

- Surfing can clearly contribute to the economic development of the Bay and the city of Houatche, if the oyster reefs are restored (surf schools, surf shops, as well as bars and restaurants). This activity can help further connect the inhabitants with the marine environment, and raise awareness if surfers participate in ocean literacy activities.

### THREATS

Backlash or discontent if the restoration project clearly hinders the practice of surfing

## Scenario 2: Marine Protected Area

### Background information and main objective

A Marine Spatial Planning (MSP) process has been initiated, with a timeline of one year to finalize the proposal for a Marine Protected area. To ensure stakeholder involvement and collaborative development, a public participation event is being organized, aiming to **co-create a comprehensive management plan** through a participatory and inclusive approach.

Effective marine protected areas (MPAs) are needed to rebuild fish stocks, mitigate the effects of climate change, secure the future of sustainable fisheries and tourism, and guarantee food, livelihoods and well-being for local communities. Their number has increased in the last two decades but just a very tiny percentage of them have effectively implemented management plans.

The specific objectives of this session are to identify three key aspects that the MPA management plan must include:

1. Size of no-take MPA
2. Coexistence of Offshore Wind Farms (OWFs) and MPAs<sup>1</sup>
3. Define whale-watching allowed areas



<sup>1</sup> <https://maritime-spatial-planning.ec.europa.eu/practices/safeguarding-marine-protected-areas-growing-mediterranean-blue-economy>

Figure 1: Summary of key elements that build a Marine Spatial planning process. Source: UNESCO 2018, IOC Workshop Reports Series, 300

## General description

Comillas Island is part of the Kareten archipelago, an autonomous region located in the North Atlantic Ocean. It is one of the smaller islands of the archipelago, known for its tranquil landscapes, volcanic formations, and UNESCO Biosphere Reserve designation. Comillas is an oval-shaped island that lies about 60 km (37 miles) northeast of Gribbel Island and is part of the central group of the Kareten. The island spans 4.3 kilometers north-south and six kilometers east-west. Comillas Island is completely flat and is around 20 kilometers in circumference, so you can comfortably explore it by bicycle.

The island is notable for its natural beauty, including a large volcanic cave with a sulfurous lake, and its small, charming towns. Geographically, Comillas has a temperate maritime climate, making it an attractive destination for nature lovers and those seeking a peaceful, less crowded island experience.

When approving a Marine Protected Area (MPA), several concerns must be addressed to balance conservation goals with social, economic, and environmental considerations. Figure 2 shows the different phases of the process and summarizes the key elements.

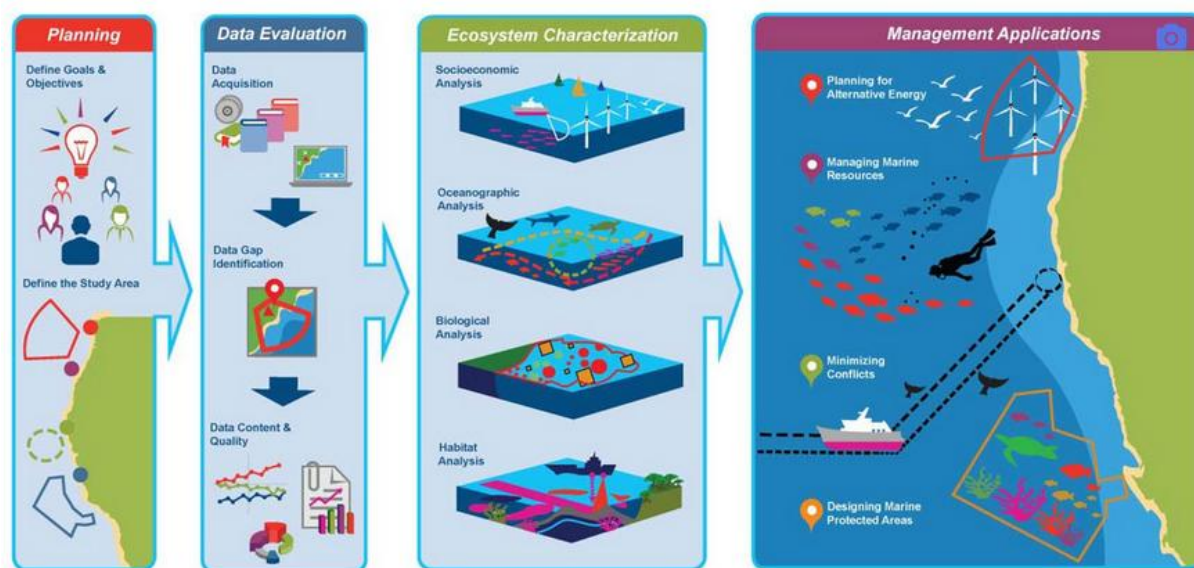


Figure 2: Phases of a Marine Protected area definition process. Source: <https://www.imbrsea.eu/product/40>



There is a strong link between traditional rural human populations and the environment. Facts to be considered:

- Comillas was declared Biosphere reserve in 2002.
- In 2020 at this biosphere reserve lived in 1,058 residents and 466 households.
- Extensive cattle grazing has been practiced widely over most of the lowlands, and it is the major economic activity.
- Ecotourism and recreational fishing are examples of sustainable natural resource use activities that have been strengthened since the biosphere reserve designation.
- In 2020, radar surveillance proved that most of the fishing operation (mainly trawling) took place in the close vicinity of the MPA. In fact, fishing effort (km trawled/km<sup>2</sup>) diminished with distance from the MR limits (< 1 km = 23,4; 1-2 km = 15,9; 2-3 km = 12,7), proving that the fleet was taking advantage of the “edge effect” of the MPA. In this situation it was possible to argument that enlarging the protected area will mean an increase of the perimeter, and thus of the edge effect. Only 3 out 26 fish at the MPA regularly. The MPA promoters indicates a 12 km<sup>2</sup> no take fishing, affecting 15 boats.
- Comillas island is an important breeding ground for Minke whales in the Atlantic outermost regions. Whale watching tourism is one of the main economic activities that benefit local communities. However, informal activities and the lack of enforcement of whale watching practices may threaten whales. Few MPAs in the Atlantic have management plans that include strategies for sustainable ecotourism.
- It is clearly identified that local fishermen number has decreased during the last decade, about 20% of them have changed the fishing activity, offering tourist a boat ride for whale watching. This is because in the last decade, an increase in tourism was clear, being scuba-diving and whale watching the most demanded activities from tourists.
- Enercomillas<sup>2</sup> has initiated negotiations for installing two offshore wind farms in the immediate of the proposed MPA. They presented an environmental impact assessment (EIA) and an exploitation plan for 20 years. The company ensures that this is totally compatible with the UNESCO Biosphere Reserve, since floating structures will support the development of new ecosystems.

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<sup>2</sup> Enercomillas is the Electricity supplier at Comillas



## OBJECTIVE FOR THIS MARINE PROTECTED AREA

It is proposed that 251,569 Km<sup>2</sup> were protected, featuring a 12 km<sup>2</sup> fully protected area<sup>3</sup> (Figure 3)

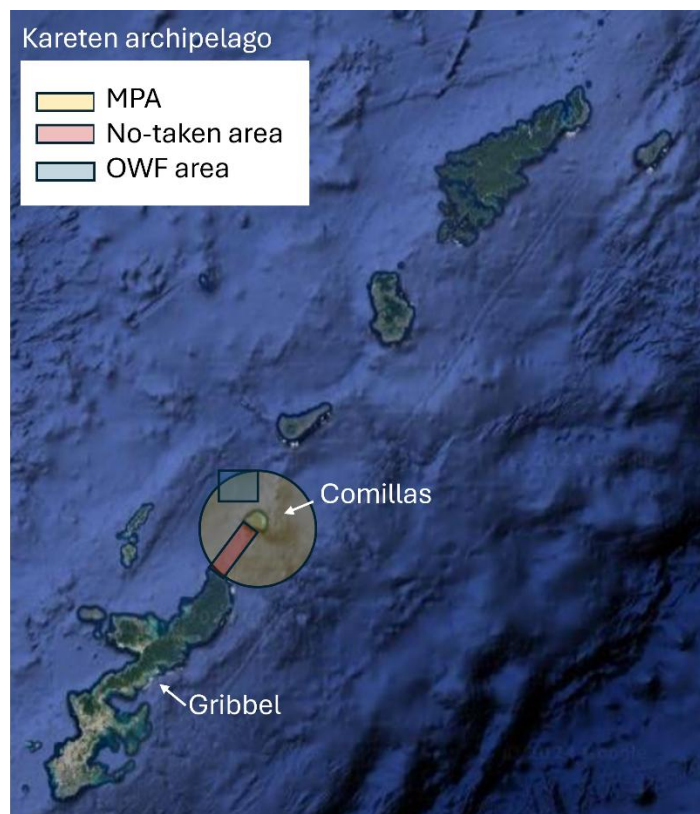


Figure 3: Kareten archipelago. On the left down corner is the Gribbel island, being the second island in the NE direction the Comillas island.

The objective is to determine whether spillover may occur, i.e. if once protected the number of fish species increase, in biodiversity and size of the individuals.

Surrounding the fully protected area, there is a ring, where only traditional fishing activities will be allowed, but may be limited to a few planned days a year. It is also indicated that the offshore wind farm approved location, will be situated in the area furthest from the island of Comillas, towards the NW. Whale watching interests cover the whole MPA, but the initial proposal establishes a limit in the number of vessels.

<sup>3</sup> The World Database on Protected Areas (WDPA) is compiled and managed by the World Conservation Monitoring Centre, an executive agency of the United Nations Environment Programme. It uses the IUCN and CBD definitions of protected areas to determine whether a site should be included in the WDPA

The proposal considers the possibility to organise whale watching activities in the inner ring, but only when it is developed by fishers.

### Key topics to be discussed

The map is deployed presenting the three areas proposed for the MPA and indicating the restriction for each one of them. Participants must debate and vote if they accept each one of the proposed points.

1. Size of no-take MPA
2. Coexistence of Offshore Wind Farms (OWFs) and MPAs
3. Agree on whale-watching conditions in the MPA

### Characters

#### Character 1: Pietro Paciocco

NAME: PIETRO PACIOCCO

PROFESSION: Researcher at Comillas Fisheries Research - Ocean and Climate Modeler, specialized in fish stocks

AGE 49

GENDER Male

LOVE INTEREST: Passionate soccer fan - he fervently supports AS Roma with all his heart and dedication... "Dajeeeeee maggica!" and enjoys sailing

FAMILY MEMBERS: He has been married to Estrella, a local woman, for 10 years, and they have two beautiful children: 10-year-old Jesus and 7-year-old Francisco, also known as Paco.

#### TRAITS

Pietro has a deep love for the sea in all its facets, particularly its traditions. This passion led him to dedicate his life to applied research in the world of fisheries, a realm still characterized by simplicity and spontaneity – qualities increasingly rare in the society Pietro comes from.

He fights tirelessly to protect these communities, fully aware of environmental changes and the need for innovative solutions that offer a sustainable future for fishers.

Beyond his work as a modeler, he invests significant time in Ocean Literacy projects, both professionally and in his free time, aiming to inspire younger generations to embrace this critical challenge. Under the motto "catch them before they grow," Pietro is a key figure for the schools and youth associations in Comillas.

## ENERGY TO DEFEND ITS POSITION

With the passionate and resolute spirit that defines him, Pietro staunchly advocates for the establishment of a Marine Protected Area (MPA), which he envisions as a Climate Refuge.

He confidently defends his stance before the authorities, grounding it in his scientific work, and approaches fishers with patience and dedication as both an educator and mediator. These communities trust him, engaging in open and honest dialogue about their future.

## SECTOR VISION

To be a leading centre in marine and climate research, committed to fostering sustainable fisheries, resilient marine ecosystems, and climate adaptability.

The Comillas Fisheries Research Centre envisions a future where scientific innovation and community engagement work together to secure the health of our oceans and the prosperity of our coastal communities.

## SECTOR MISSION

- ✓ To advance knowledge and provide solutions for sustainable fisheries and marine conservation through pioneering research in ocean and climate modelling.
- ✓ We aim to empower local stakeholders, enhance biodiversity, and address climate impacts by engaging in collaborative science and promoting Ocean Literacy across all generations.

## KEY POINTS TO DEFEND

## **Sustainability and Resilience**

The MPA will support fish stock regeneration and biodiversity protection, acting as a Climate Refugia to enhance ecosystem resilience against climate change, ensuring long-term benefits for both the environment and local communities.

## **Research and Education Hub**

As a living laboratory, the MPA will attract funding and partnerships, advancing research and Ocean Literacy initiatives that engage and educate the public on sustainable marine management.

## **Balanced Economic Opportunities**

The MPA can promote sustainable ecotourism, offering economic alternatives for fishers and benefiting the local economy while preserving marine resources.

## **SWOT ANALYSIS FOR PIETRO'S STANCE**

### **STRENGTHS**

**Enhanced Research Opportunities:** The MPA would create a controlled environment for studying fish stocks, ecosystem dynamics, and the effects of climate change, enabling high-quality data collection and long-term studies.

**Community Engagement and Support:** With the Centre's established relationships, especially with local fishers, the MPA could gain stronger local acceptance, aligning conservation with community livelihoods.

**Reputation as a Regional Conservation Leader:** Leading the establishment of the MPA would strengthen the Centre's reputation as a key player in marine conservation and sustainable fisheries management in the Atlantic region.

### **WEAKNESSES**

**Potential Stakeholder Resistance:** Local fishers and tourism operators may resist the MPA's restrictions, especially concerning no-take zones, affecting community relations and compliance.

**Resource and Funding Needs:** The MPA would require ongoing funding for monitoring, enforcement, and research, which may strain the Centre's budget and rely on external grants.

**Limited Infrastructure for Expanded Research:** Establishing an effective MPA may necessitate additional facilities, vessels, and equipment that the Centre currently lacks.

## OPPORTUNITIES

**Attraction of International Funding and Partnerships:** The MPA could draw interest from global conservation funds, research grants, and partnerships with other marine science institutions, bolstering the Centre's resources and outreach.

**Development of Climate Resilience Programs:** The MPA could serve as a Climate Refugia, enhancing biodiversity and supporting climate resilience initiatives that align with global environmental goals.

**Increased Eco-Tourism Potential:** A well-managed MPA could attract eco-conscious tourists interested in sustainable tourism and marine biodiversity, creating economic benefits for local communities.

## THREATS

**Economic Impact on Local Fisheries:** Restrictions within the MPA could impact local fishers' livelihoods, potentially leading to conflict or non-compliance with conservation regulations.

**Environmental Threats Beyond Control:** Climate change impacts, such as ocean acidification and warming, could undermine the MPA's conservation goals, affecting fish stocks and biodiversity.

**Political and Regulatory Changes:** Shifts in local or national policies, or fluctuating regulatory support for MPAs, could threaten the long-term stability and enforcement of the protected area.

## HOW WILL THIS PROPOSAL AFFECT THE CENTRE'S INTERESTS?

- **Enhances Research Opportunities and Funding:** The MPA will provide a unique environment for in-depth studies on marine ecosystems, fish stocks, and climate resilience. This could increase the Centre's appeal for research grants and partnerships, elevating its role as a leader in marine science and conservation.
- **Supports Community Engagement and Education:** With the MPA, the Centre can deepen its relationships with local stakeholders, integrating scientific insights into community practices. It will also strengthen the Centre's Ocean Literacy programs, allowing it to educate and engage youth and residents on sustainable marine practices.

- **Aligns with Long-Term Conservation Goals:** By helping protect biodiversity and promote sustainable fisheries, the MPA aligns with the Centre's mission of supporting environmental resilience. It positions the Centre as a key advocate for sustainable resource management, further solidifying its regional and scientific reputation.

## Character 2: Isabel Martínez

NAME: ISABEL MARTÍNEZ

PROFESSION: Vice Minister of Development, Comillas Government

AGE 52

GENDER Female

**BACKGROUND AND FAMILY:** Isabel was born in Comillas. She is the daughter of a family with longstanding local businesses in agriculture and tourism. She is married to Alejandro, an environmental lawyer, and they have a son, Tomás, 20, who studies business management.

Isabel has always advocated economic growth that benefits the local population, emphasizing practical solutions over idealistic conservation measures.

### TRAITS

Isabel is a pragmatic and results-oriented leader who believes that economic stability should be the priority for Comillas.

She values development projects that generate jobs and revenue for the community, and she is wary of restrictive measures, like MPAs, which she fears could limit growth potential, especially for energy projects such as Offshore Wind Farms (OWFs).

Isabel is known for her direct approach and is not afraid to voice her concerns about the economic impacts of conservation measures.

### ENERGY TO DEFEND ITS POSITION

Isabel will argue forcefully for balanced, economically sound policies, emphasizing the need to weigh MPA restrictions against the potential revenue from energy and tourism projects.

She will challenge conservationists to justify how the MPA can coexist with economic development without stifling opportunities for growth in renewable energy and local industries.

#### KEY POINTS TO DEFEND

- **Economic Growth and Sustainable Energy Development:** The Development Ministry emphasizes that the MPA should support economic growth by allowing development projects, such as Offshore Wind Farms (OWFs), that generate jobs and revenue. The Ministry advocates for policies that demonstrate how renewable energy infrastructure can coexist with conservation efforts if planned and managed effectively.
- **Balanced and Practical Policy Approach:** The Ministry argues for a balanced policy framework that avoids overly restrictive MPA regulations, which could hinder local economic opportunities. It promotes a practical approach that considers the needs of local businesses, renewable energy initiatives, and tourism while ensuring that conservation goals are met.
- **Flexible Conservation Measures Aligned with Economic Sustainability:** while supporting conservation efforts, the Development Ministry insists that these measures should be flexible and adaptive, allowing traditional industries like fishing and tourism, as well as new sectors like renewable energy, to operate sustainably within the MPA. The Ministry stresses the importance of policies that enable economic and environmental interests to thrive together.

#### SWOT ANALYSIS FOR ISABEL'S STANCE

##### STRENGTHS

- **Support for Sustainable Development Goals:** The MPA policy aligns with broader sustainability and climate goals, enhancing the Development Ministry's ability to attract funding and support for initiatives that showcase Comillas as a leader in conservation-minded development.
- **Economic Opportunities in Eco-Tourism and Green Energy:** If structured flexibly, the MPA can promote eco-tourism and renewable energy, such as OWFs, generating revenue and job opportunities in alignment with the Development Ministry's goals.
- **Reputation for Progressive Environmental Policy:** By supporting an MPA, the Development Ministry strengthens its image as a forward-looking entity that



integrates economic growth with environmental stewardship, which can increase stakeholder trust and attract investment.

## WEAKNESSES

- **Potential Economic Restrictions on Traditional Industries:** Strict MPA regulations may limit traditional fishing and tourism operations, challenging the Development Ministry to balance these with conservation goals and potentially impacting local livelihoods.
- **Increased Dependence on External Funding:** Implementing and managing an effective MPA may require substantial funding, placing financial strain on the Ministry and creating dependency on grants, which may not be sustainable long-term.
- **Complex Regulatory and Enforcement Requirements:** Ensuring compliance with MPA regulations, particularly for OWFs and whale-watching activities, could increase administrative and enforcement burdens for the Ministry, requiring new resources and infrastructure.

## OPPORTUNITIES

- **Diversification of the Local Economy through Sustainable Tourism:** The MPA policy offers a chance to shift from traditional industries to eco-tourism and renewable energy, providing new revenue streams that align with both conservation and development goals.
- **Increased Funding for Green and Climate Resilience Projects:** The MPA's conservation focus could attract international funding for climate resilience and biodiversity projects, expanding the Development Ministry's capacity for sustainable regional projects.
- **Public-Private Partnerships for Renewable Energy:** The coexistence of OWFs within the MPA creates an opportunity for the Development Ministry to form partnerships with private companies, boosting investment in green energy infrastructure and setting a model for sustainable growth.

## THREATS

- **Economic Impact on Local Fisheries and Tourism Sectors:** MPA restrictions could reduce the income of local fishers and tourism operators, potentially leading to conflicts and resistance, and impacting the Ministry's role in supporting economic stability.



- **Environmental Risks Affecting MPA Goals:** Climate change impacts, such as ocean acidification and warming, could undermine the MPA's effectiveness in conserving biodiversity, affecting the Ministry's ability to deliver on conservation promises.
- **Conflicting Policy Priorities with Other Governmental Departments:** Differing priorities between the Development Ministry and conservation-focused departments may lead to bureaucratic conflicts, delays, or compromises in MPA policy implementation, affecting both environmental and economic outcomes.

#### HOW WILL MPA AFFECT MINISTRY'S INTERESTS:

- **Influences Economic Development and Job Creation** - The MPA's restrictions on certain activities may limit traditional economic drivers, such as fishing and tourism, which could impact local job creation. However, if structured with flexibility, the MPA also offers opportunities for sustainable sectors like eco-tourism and renewable energy, particularly with Offshore Wind Farms (OWFs), to provide alternative economic growth. The Ministry views this as a chance to modernize the economy while safeguarding local livelihoods.
- **Positions the Ministry as a Leader in Sustainable Development** - Supporting the MPA aligns the Development Ministry with global sustainability goals, potentially enhancing its reputation as a forward-thinking leader in balancing economic growth with environmental stewardship. This could attract additional funding and partnerships but also requires careful navigation of public expectations for economic benefits within conservation areas.
- **Creates Opportunities and Challenges in Policy Adaptation** - The MPA will require adaptive policies that balance conservation with economic needs, challenging the Ministry to develop flexible regulations that allow OWFs and controlled tourism within the protected area. Successful implementation could establish a model for sustainable development, though the Ministry must address potential conflicts with local stakeholders concerned about economic restrictions.
- **Increases Demand for Interdepartmental Coordination** - Implementing an effective MPA will require close collaboration with conservation and environmental agencies, increasing the Ministry's role in policy alignment and resource allocation. This interdepartmental approach may enhance the Ministry's influence over regional development but also introduce bureaucratic complexities that could slow down project approvals and economic initiatives.



### Character 3: GEORGE

NAME: GEORGE (AFFECTIONATELY KNOWN AS "OLD MAN GEORGE")

PROFESSION: Former fisherman, now nature guide and local artisan

AGE 58

GENDER Male

PERSONAL STORY: George was born and raised on Comillas Island, in a family of fishermen. He spent much of his life at sea, but years of hard labor and financial hardship led him to develop a dependence on alcohol, eventually causing him to withdraw from the community.

A violent storm nearly claimed his life at sea, serving as a turning point. Determined to change, he found solace in reconnecting with the island's marine nature. Over the years, He overcame his struggles, immersing himself in meditation by the sea and learning traditional remedies. Now a respected nature guide, he leads tourists to hidden island spots like Star Bay, sharing beauty and serenity.

FAMILY MEMBERS: George lives alone, but he remains close to his extended family on the island, who supported him through his journey to recovery.

#### TRAITS

George is a resilient, nature-loving soul with a deep respect for Comillas' marine environment and heritage. His experiences have shaped him into an advocate for sustainable practices and conservation, particularly in maintaining a no-take area and promoting eco-friendly whale-watching.

He is wary of large-scale energy projects, believing they disrupt the natural peace and balance of the island.

#### ENERGY TO DEFEND ITS POSITION

George is committed to advocating for the MPA as a sanctuary for marine life, particularly in favour of no-take zones to protect fish stocks and biodiversity.

He passionately defends the need for sustainable tourism, such as regulated whale-watching, to honour and preserve the island's natural resources.

George is firmly against Offshore Wind Farms (OWFs) within the MPA, seeing them as a threat to the island's ecological harmony and identity.

## SWOT ANALYSIS FOR GEORGE'S STANCE

### STRENGTHS

- **Respected Community Figure:** George's personal journey from fisherman to nature guide makes him a trusted voice for conservation, with his story inspiring many in the community.
- **Connection to Marine Ecosystems:** His deep knowledge of the island's marine environment, drawn from his experience at sea, allows him to speak authentically about the need for preservation.

### WEAKNESSES

- **Opposition to Energy Projects:** His strong opposition to OWFs may alienate supporters of renewable energy, potentially isolating him from parts of the community.
- **Limited Formal Influence:** While well-regarded, George lacks political power, relying solely on community support and his influence as a local figure to impact policy.

### OPPORTUNITIES

- **Champion for Sustainable Tourism:** George's experience as a nature guide positions him to advocate for eco-tourism, promoting respectful interactions with marine life, such as whale-watching.
- **Education on Marine Conservation:** Through his tours, George can educate tourists and locals alike about the importance of the MPA, building a strong base of support for conservation.

### THREATS

- **Economic Pushback from Fishers:** Advocacy for no-take zones may lead to opposition from local fishers concerned about restricted access, challenging George's efforts.
- **Conflict with Energy Advocates:** His resistance to OWFs may create tension with stakeholders who see renewable energy as beneficial, potentially diminishing his influence in community discussions.

### KEY POINTS TO DEFEND

- **Preservation of Marine Heritage through No-Take Areas:** George believes that no-take zones are essential for protecting fish populations and marine biodiversity, preserving Comillas' natural heritage for future generations.
- **Opposition to Energy Development in the MPA:** He argues that OWFs disrupt the tranquility and ecological balance of the MPA, posing a threat to the island's natural character and traditional livelihoods.
- **Promotion of Sustainable, Small-Scale Tourism:** George advocates for controlled whale-watching as a sustainable economic alternative, emphasizing educational, respectful tourism that aligns with conservation goals.

#### HOW THE MPA PROPOSAL AFFECTS GEORGE'S INTERESTS

- **Supports Conservation and Marine Biodiversity:** The MPA's no-take zones align with George's commitment to preserving fish stocks and marine life, reinforcing his belief in the island's role as a sanctuary for nature.
- **Promotes Eco-Tourism and Sustainable Income:** A well-regulated MPA with sustainable whale-watching opportunities allows George to continue sharing the island's beauty, providing economic benefits while protecting natural resources.
- **Challenges with Energy Development Opposition:** The proposal's potential inclusion of OWFs within the MPA conflicts with George's vision for a peaceful, undisturbed marine environment, leading him to advocate for alternative conservation-focused solutions that prioritize the island's natural heritage.

#### Character 4: Jonathan Johson

NAME: JONATHAN JOHNSON

PROFESSION: Fisherman

AGE 48

GENDER Male

LOVE INTEREST: I enjoy drinking beer with my friends while watching football

FAMILY MEMBERS: I am the younger of 5 brothers. My mother was ill and died when I was 5. I am married and have one daughter.

TRAITS

“Hi, my name is Jonathan, or "Johnny" Johnson. I have been a fisherman for the last 30 years. I have my own boat and go fishing every working day with a young man that work for me.”

Johnny employs traditional methods passed down through generations, such as hand-lining, traps, or nets. He does not like big boats exploiting their resources.

#### ENERGY TO DEFEND ITS POSITION

He will try not to have the no-take area, and he is against the OWFs.

#### SWOT ANALYSIS FOR JONATHAN'S STANCE

##### STRENGTHS

- MPAs can allow greater catch in the future due to the spillover effect.

##### WEAKNESSES

- MPAs often limit or prohibit fishing in certain zones, directly reducing available areas for fishermen, which can lead to short-term income loss.

##### OPPORTUNITIES

- MPAs can attract eco-tourism and sustainable tourism, creating partnership opportunities for fishermen, such as tour guide services, boat rentals, and seafood tastings.

##### THREATS

- MPAs might lead to crowded fishing in unprotected areas, which can intensify competition and risk overfishing outside the MPA boundaries.

#### FISHERMENS' PLAN

Fishing is a cornerstone of our livelihood and community identity. We envision a future where this heritage is honored and maintained through continued practice and education of younger generations, ensuring that island fishing traditions thrive.

#### FISHERMEN STRATEGIC GOALS

1. It is our main interest to maintain sustainable fish stocks, because that will guarantee our subsistence.

2. Securing fair prices, improving market access, and diversifying income streams through value-added products or local partnerships.

3. Optimize boats' technology and energy consumption to reduce costs.

#### KEY POINTS TO DEFEND

✓ No-take zones leads to economic losses to our sector and also job losses.

✓ We acknowledge the importance of marine conservation, but fishing is our way of life.

#### HOW THE MPA PROPOSAL AFFECTS JONATHAN'S INTERESTS

- The MPA limits on where and when we can fish, potentially reduce our catch in key areas (-)
- Fish populations grow and migrate outside MPA boundaries (+)
- We have the resource (fish stocks) but regulations will prevent us to benefit of it (-)

### Character 5: Barry MacVean

NAME: BARRY MACVEAN

PROFESSION: Offshore wind engineer

AGE 28

GENDER Male

LOVE INTEREST: I love climbing and surfing.

FAMILY MEMBERS: I don't have any brothers or sisters. My parents live in Brussels.

#### TRAITS

"Hi, I am a work-passionate, since I firmly believe that I am contributing to the broader goal of reducing carbon emissions and promoting clean energy. But I also enjoy doing nature-based activities."

I have joined EnerComillas a couple of years ago for the development of the Comillas Island Offshore wind farm project.

#### ENERGY TO DEFEND ITS POSITION

He thinks that a well-regulated marine space is characterized for being multi-used.

The multi-use of marine space (MUMS) concept aims to address competing demands on marine environments by allowing different sectors – such as renewable energy, fishing, aquaculture, tourism, and conservation - to coexist in the same geographic area.

## SWOT ANALYSIS FOR BARRY'S STANCE

### STRENGTHS

Well-defined zones within MPAs help developers to plan projects within established boundaries.

### WEAKNESSES

Restrictions within MPAs may limit the scope and scalability of offshore wind projects, affecting energy output.

### OPPORTUNITIES

Working alongside environmental organizations within MPAs can provide insights into innovative technologies for coexistence and sustainability.

### THREATS

Additional environmental studies, assessments, and adaptations required for operating in or near MPAs could lead to higher operational costs.

## ENERCOMILLAS VISION & MISSION

Ernercomillas aims to contribute to the island carbon neutrality and energy independence, at the same time that create job opportunities in construction, maintenance, and support services within the archipelago.

## ENERCOMILLAS STRATEGIC GOALS

1. A strong commitment to environmental responsibility is central to this local company, which works to minimize ecological disruption during installation and contribute to marine biodiversity during the exploitation phase.
2. To set up a commercialization programmed in line with the optimization of long-term operation and maintenance.

## KEY POINTS TO DEFEND



✓ OWF can coexist with MPAs to promote biodiversity by creation of artificial reefs that might provide habitats for fish & other organisms.

✓ OWF developments can support local economies by creating jobs and contracting with local suppliers.

#### HOW THE MPA PROPOSAL AFFECTS BARRY'S INTERESTS

- If MPA comes with strict regulations, requesting additional environmental impact assessments (EIAs) could lead to project delays, increased costs, and potentially have to change the farm design (-)
- Limits on construction activities could increase project deadlines, or more expensive methods (-)
- Planning constraints may require more negotiation to secure space for the OWF (-)

#### Character 6: Barbara Walls

NAME: BARBARA WALLS

PROFESSION: Greenpeace activist

AGE 32

GENDER Female

LOVE INTEREST: I love reading and archeology.

FAMILY MEMBERS: I have a twin sister, and we love to do things together. Our parents live in Australia

#### TRAITS

"Hi, my name is Barbara. I have a PhD in and love going out with my sister to investigate wrecks in Comillas Seas.

I am in love with this place because of its landscape's views, sense of belonging and cultural heritage."

I organized an event where 50 people gathered outside Comillas city hall to protest about the OWF development plan.

## ENERGY TO DEFEND ITS POSITION

She loves the idea of a full-protected MPA because strongly thinks it will benefit the whole community, creating a sustainable marine environment where ecosystems can provide food and many other substances for a well-being future in Comillas.

## SWOT ANALYSIS FOR BARBARA'S STANCE

### STRENGTHS

- MPAs can help depleted fish populations recover, benefiting local communities reliant on sustainable fishing and supporting ocean health.

### WEAKNESSES

- Coastal and fishing communities may resist MPA initiatives due to its perception of Economic Pushback by limiting fishing quotas or no-taken areas.

### OPPORTUNITIES

- MPAs offer a setting for scientific research.

### THREATS

- External threats like pollution, acidification, and warming oceans could undermine MPA.

## NGO VISION & MISSION

Greenpeace envisions a world where both people and nature can coexist sustainably. This vision emphasizes a thriving, biodiverse environment, where resources are used responsibly to support future generations.

## NGO STRATEGIC GOALS

1. Protect & restore ecosystems, focusing on oceans, forests, and biodiversity hotspots.
2. Ensure communities are at the forefront of environmental decision-making, particularly those most affected by climate change and environmental degradation
3. Campaigning for a just transition in energy sectors to meet Paris agreement targets.

## KEY POINTS TO DEFEND

✓ MPA hinges on robust enforcement, adequate funding, and community support.

✓ An MPA aligns with Greenpeace's mission to protect biodiversity and promote sustainable ecosystems.

#### HOW THE MPA PROPOSAL AFFECTS BARBARA'S INTERESTS

- The MPA should provide a more intensive control over illegal fishing (+)
- MPA should forbid the OWF development in Comillas (+)
- MPA should limit the whale watching number of boats (+)
- A MPA monitoring plan will contribute to gather data on marine health and biodiversity (+)

#### Character 7: Sarah Bullen

NAME: SARAH BULLEN

PROFESSION: DEAN OF COMILLAS UNIVERSITY

AGE 47

GENDER Female

LOVE INTEREST: I enjoy playing violin and wild swimming

FAMILY MEMBERS: I am married and have two sons, aged 20 and 16.

#### TRAITS

"I promote cultural awareness and conservation, integrating island traditions and values into university life.

I work toward an inclusive environment that attracts international students while supporting the local population's education, encouraging growth and resilience in both the institution and the surrounding community.

#### ENERGY TO DEFEND ITS POSITION

She is worried about climate change and overtourism.

#### SWOT ANALYSIS FOR SARAH'S STANCE

#### STRENGTHS

- The MPA offers a natural laboratory for marine science & environmental studies, providing unique hands-on learning experiences for students and researchers.

#### WEAKNESSES

- Restrictions imposed on fishing, tourism, or industrial development within the MPA could affect the local economy.

#### OPPORTUNITIES

- MPA-led research could increase its visibility, attracting external funding, partnerships, and high-quality faculty & students interested in environmental studies.
- The MPA can help to promote ecotourism and responsible resource management, which could create jobs and diversify the local economy.

#### THREATS

- Resistance from local stakeholders who rely on fishing & tourism.
- Climate change

#### UNIVERSITY VISION & MISSION

To serve as a beacon of knowledge & innovation in the Atlantic, empowering island communities and fostering sustainable growth through inclusive education, research, and outreach. It is our goal to prepare students to contribute meaningfully to global challenges with a local perspective.

#### UNIVERSITY STRATEGIC GOALS

1. Create robust academic programs focused on marine biology, conservation policy, and sustainable ocean management.
2. Build local support and awareness around the MPA's role in environmental sustainability
3. Innovate and test new technologies for marine conservation within the MPA.

#### KEY POINTS TO DEFEND

- ✓ Comillas University is an influential hub for knowledge.
- ✓ Research is key for the long-term sustainable management of the MPA and for attracting funding to the island.

✓ A monitoring plan must be established from the beginning.

#### HOW THE MPA PROPOSAL AFFECTS SARAH'S INTERESTS

- The MPA may create new opportunities for grant funding and partnerships with government & NGOs focused on conservation and sustainability (+)
- MPA-related programs may require new infrastructure, such as research vessels, labs, and accommodation for visiting researchers or students (-)

#### Character 8: Andrew Side

NAME: ANDREW SIDE

PROFESSION

WHALE WATCHING GUIDE

AGE 55

GENDER Male

LOVE INTEREST: I enjoy sailing and diving

FAMILY MEMBERS: I live with my wife and two dogs.

#### TRAITS

"I show a genuine love for marine life, especially whales and other ocean creatures, which they share with his guests.

I have a solid foundation in the local marine biology due to his life-long sea related work-experience.

I am also a great communicator and deeply committed to ocean conservation, promoting respect for the marine environment."

He understands the excitement and sometimes fears guests may have on the water. His friendly nature puts guests at ease, providing personal stories to make the journey more relatable and creating memorable experiences.

#### ENERGY TO DEFEND ITS POSITION

He is passionate about his job, so he will defend the MPA and the continuity of his activity as totally compatibles.

## SWOT ANALYSIS FOR ANDREW'S STANCE

### STRENGTHS

- MPAs protect marine ecosystems, increasing whale populations and overall biodiversity

### WEAKNESSES

- MPAs may limit areas where boats can go. Additional permits, fees, and strict protocols can increase operational costs and require tedious administrative tasks.

### OPPORTUNITIES

- MPAs can attract tourists specifically looking for pristine areas and eco-friendly approaches.
- Whale watching is an opportunity for research institutions and NGOs collaborations, contributing to the MPA monitoring activities.

### THREATS

- Competition with other activities (diving, snorkeling, fishing...)
- Climate change

## SECTOR VISION & MISSION

Our mission is to foster greater respect for our marine ecosystems by providing insightful encounters that prioritize conservation, respect for wildlife, and the beauty of our natural island.

## UNIVERSITY STRATEGIC GOALS

1. Actively contribute to marine conservation by partnering with local organizations or research institutions, which might help to diversify business model.
2. Stay physically fit and mentally engaged in a physically demanding job.
3. Being involved in Ocean Literacy.

## KEY POINTS TO DEFEND

- ✓ We are MPA supportive as long as it allows us to keep doing our activity in the same terms, or even more often.
- ✓ As a collective we understand that the activity must be regulated.

## HOW THE MPA PROPOSAL AFFECTS ANDREW'S INTERESTS

- Increased Conservation and Biodiversity (+)
- Enhanced Marketing and Brand Reputation (+)
- Restrictions on boat access, speed limits, and proximity to marine animals to protect them from disturbance (-)
- Some of the MPA requirements might be financially challenging, e.g. investing in eco-friendly vessels (-)

## Character 9: David Jackson

NAME: DAVID JACKSON

PROFESSION: PORT AUTHORITY REPRESENTATIVE

AGE 52

GENDER Male

LOVE INTEREST: I enjoy sailing and playing paddle with my friends

FAMILY MEMBERS: I am married and have three kids, twelve years old girl twins and a six-year-old boy.

### TRAITS

"I have strong interpersonal and communication skills.

I am a business-focused person: "money attracts more money"."

### ENERGY TO DEFEND ITS POSITION

He is not very keen on the MPA designation, because he thinks that it will affect maritime traffic.

### SWOT ANALYSIS FOR DAVID'S STANCE

#### STRENGTHS

- The MPA offers a natural laboratory for marine science environmental studies, providing unique hands-on learning experiences for students and researchers.

#### WEAKNESSES

- Restrictions imposed fishing, tourism, or industrial development within the MPA could affect the local

#### OPPORTUNITIES

- MPA-led research could increase its visibility, attracting external funding, partnerships, and high-quality faculty students interested in environmental studies.
- The MPA can help to promote ecotourism and responsible resource management, which could create jobs and diversify the local economy.

#### THREATS

- Resistance from local stakeholders who rely on fishing & tourism.



- Climate change

## PORT AUTHORITY VISION & MISSION

To manage the port infrastructures, to ensure the access and circulation of people and goods by sea, contributing to the sustainable development of the regional economy.

The long-term vision is to position Comillas' port as a sustainable & innovative hub in the Atlantic

## PORT AUTHORITY STRATEGIC GOALS

1. Upgrading digital for smarter go alignment and expanding green energy initiatives, such as onshore power supply (OPS) for cruise ships.
2. This OPS technology includes also energy storage solutions, which goes in line with the OWF development. This will significantly position the port sustainable hub, aligning with global maritime decarbonization efforts.

## KEY POINTS TO DEFEND

- ✓ 95% of the goods that enter Comilla arrive by sea.
- ✓ Research is key for the long-term sustainable management of the MPA and for attracting funding to the island.
- ✓ A monitoring plan must be established from the beginning.

## HOW THE MPA PROPOSAL AFFECTS DAVID'S INTERESTS

- The MPA may create new opportunities for grant funding and partnerships with government & NGOS focused on conservation and sustainability (+)
- MPA-related programs may newly require infrastructure, such as research vessels, labs, and accommodation for visiting researchers or students (-)

## Links to Canva for editing the game materials

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