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A Systems Approach in Ocean Governance
Values & Visions for Marine Planning
Case Studies in the Arctic and Mediterranean

Jade Zoghbi

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Jade Zoghbi

Ph.D Thesis

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A Systems Approach in Ocean Governance

Values & Visions for Marine Planning

Case Studies in the Arctic and Mediterranean

Jade Zoghbi

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A Systems Approach in Ocean Governance

Values & Visions for Marine Planning

Case Studies in the Arctic and Mediterranean

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Abstract

Marine areas worldwide are increasingly contested spaces where various interests and activities take place necessitating robust governance and planning frameworks that incorporate diverse values and visions for sustainable futures. This dissertation addresses the complexities of marine and coastal planning through case studies in a remote coastal community in Northeastern Iceland and a transboundary sanctuary for marine mammals in the Mediterranean between Italy, France and the Principality of Monaco. The research highlights value pluralities and management horizons for effective marine planning, especially in the contexts of global tourism and marine mammal conservation with a focus on cetaceans. The primary research objectives focus on identifying and defining the values that local actors consider important for future marine and coastal planning, exploring how international tourists' values and behavioral insights can inform ethical tourism management, and elucidating the values of institutional and business stakeholders involved in marine activities. Addressing these aspects emphasizes the need for a valuation framework that advocates for a holistic approach including socio-cultural and ecological aspects as well as contextually salient dimensions. Empirical findings from qualitative interviews reveal a diverse spectrum of values, including the value of a healthy ecosystem, tourism sustainability, the well-being of whales, and cooperation and coordinated management across borders. This aligns with contemporary calls for more inclusive and equitable management regimes, particularly considering Iceland's recent marine planning legislation and ongoing discussions about area-based management tools. The research highlights the critical role of procedural justice in MSP, especially in the Arctic, where marine planning initiatives are still emerging. By examining the values of local communities and tourists in Húsavík, this study contributes to both the theoretical and practical realms of MSP, emphasizing the interconnectedness of human and non-human dimensions within socio-ecological systems. The study of the Pelagos Sanctuary for Marine Mammals further emphasizes the importance of institutional and business values and practices in marine regimes. This dissertation advances avenues for transformative governance systems that support the preservation and regeneration of marine habitats and value-inclusive approach essential for achieving sustainable and just outcomes in marine governance.

Resumen

Las áreas marinas en todo el mundo son espacios cada vez más disputados donde se encuentran diversos intereses y actividades, lo que requiere marcos sólidos de gobernanza y planificación que incorporen diversos valores y visiones para futuros sostenibles. Esta disertación aborda las complejidades de la planificación marina y costera a través de estudios de caso en una comunidad costera remota en el noreste de Islandia y un santuario transfronterizo para mamíferos marinos en el Mediterráneo entre Italia, Francia y el Principado de Monaco. La investigación destaca las pluralidades de valores y los horizontes de gestión esenciales para una planificación marina eficaz, especialmente en los contextos del turismo global y la conservación de los mamíferos marinos, con especial atención a los cetáceos. Los principales objetivos de la investigación se centran en identificar y definir los valores que los actores locales consideran esenciales para la futura planificación marina y costera, explorar cómo los valores y los comportamientos de los turistas internacionales pueden informar la gestión ética del turismo y dilucidar los valores de las instituciones. y partes interesadas empresariales involucradas en actividades marinas sostenibles. Abordar estos aspectos enfatiza la necesidad de un marco de valoración que abogue por un enfoque holístico que incluya dimensiones socioculturales y ecológicas, así como dimensiones relevantes para los distintos contextos. Los hallazgos empíricos de las entrevistas cualitativas con las partes interesadas revelan un espectro diverso de valores que informan un enfoque basado en valores para la Planificación Epacial Marina (PEM). Esto se alinea con los llamados contemporáneos a favor de regímenes de gestión más inclusivos y equitativos, particularmente considerando la reciente legislación de planificación marina de Islandia y las discusiones en curso sobre herramientas de gestión basadas en el territorio. La investigación destaca el papel fundamental de la justicia del proceso en la PEM, especialmente en el Ártico, donde las iniciativas de planificación marina aún son incipientes. Al examinar los valores de las comunidades locales y de los turistas en Húsavík, este estudio contribuye tanto al ámbito teórico como al práctico de la PEM, enfatizando la interconexión de las dimensiones humanas y no humanas dentro de los sistemas socioecológicos. La exploración del Santuario de Mamíferos Marinos de Pelagos enfatiza aún más la importancia de los valores y prácticas institucionales y comerciales en los regímenes marinos. Esta tesis promueve vías para sistemas de gobernanza transformadores que apoyen la preservación y regeneración de los hábitats marinos y un enfoque inclusivo de valores esencial para lograr resultados sostenibles y justos en la gobernanza marina.

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Table of Contents

Acknowledgements III
Abstract VI
Resumen VII
List of Figures XI
List of Tables XII
List of Images XIII
List of Maps XIV
Acronyms XV

1. Introduction 1
1.1 Setting the Scene: Trajectories for the Oceans and Seas 1
1.1.1 On Science for Society in an Era of Accelerated Change 4
1.2 Research Overview 6
2. Theoretical Framework 14
2.1 Systems Thinking for Sustainability and Learning 14
2.1.1 Science for Policy Interface 15
2.1.2 Transdisciplinarity 17
2.1.3 Planning with Complexity-Awareness 18
2.2 Approaches to Planning Marine and Coastal Space 20
2.2.1 Marine Protected Areas for Marine Mammals 24
2.2.2 Advancing Approaches for Marine Planning 26
2.2.3 Tourism and / in Marine Protected Areas 28
2.3 Interrelation of Values and Marine and Coastal Planning 28
2.4 Interrelation of Ethics and Values in Marine Tourism 32
2.4.1 Typologies of Tourism - On Ecotourism 33
2.4.2 A Spectrum of Environmental Dispositions for Tourism Management 34
2.4.3 The Potential of Ecocentrism for Sustainable and Just Practices 35
2.4.4 Shifting Valuations of Cetaceans 38
2.5 Actor Networks in Transboundary Marine Protected Areas 41
3. Methodology and Methods 44
3.1 Local Values 48
3.2 Tourist`s Values 60
3.3 Institutional and Business Values 69
4. Case Studies 78
4.1 The Arctic Context 78
4.1.1 Húsavík and Skjálfandi Bay in Northeastern Iceland 80
4.1.2 The EU in the Arctic and the Arctic in the EU 83
4.1.3 Human-Wildlife Interactions: Whale watching in Skjálfandi Bay 86
4.1.4 Arctic Tourism and the Northeastern Icelandic Context 88

4.2 The Pelagos Sanctuary - A Specially Protected Area of Mediterranean Importance (SPAMI) **90**

5. Findings **96**

5.1 Values and Visions for Marine and Coastal Planning for Húsavík and Skjálfandi Bay, Iceland **97**

5.1.1 Procedural Values 97
5.1.2 Substantive Values 102
5.1.3 Ecosystem-Services Related Values 106
5.1.4 The Tourism Transition 108
5.1.5 Concerns and Visions for the Future of the Bay 109

5.2 Ethical Orientations for Marine Tourism and Regulations **117**

5.2.1 Exploring a Spectrum of Environmental Ethics 119
5.2.2 Motivations and Climate Change 120
5.2.3 Relational Insights for the Ecocentrism/Anthropocentrism 121
5.2.4 Transport: Critical Reflections on Mobility and Limits 124

5.3 Actor-Network Perspectives and Values: Transboundary Marine Governance for Marine Mammal Conservation **130**

5.3.2 Transboundary Cooperation and Coordination 131
5.3.3 Data Collection and Research 134
5.3.4 Education and Awareness 136
5.3.5 Sustainable Tourism Practices (Whale watching Tourism in Focus) 137
5.3.6 Policies, Governance and Challenges 139

6. Discussion **142**

6.1 Convergences and Divergences: Towards Synergistic Planning and Management **142**

6.2 The Arctic and Mediterranean: Geographies in Focus **153**

6.2.1 Policy and Regulatory Considerations in Context 155

7. Conclusion **157**

8. References **160**

9. List of Publications, Contributions, and Presentations **174**

10. Appendices **175**

List of Figures

FIGURE 1 TIMELINE - EMPIRICAL RESEARCH AND METHODS 46
FIGURE 2 STATEMENT RESULTS 118
FIGURE 3 DEFINING NATURE 122

List of Tables

Table 1 List of Values - JUSTNORTH 50
Table 2 List of Value Descriptions 51
Table 3 Value Categories JUSTNORTH 58
Table 4 Extract of Data Coding 59
Table 5 Interviewee Profiles 63
Table 6 List of Statements, Descriptions and Benchmark Sources 66
Table 7 Interviewees Pelagos 72
Table 8 Pelagos List of Codes 75
Table 9 Measures and Definitions for Marine and Land-based Activities 110
Table 10 Feedback After Whale Watching 128

List of Images

Image 1 Overlooking Húsavík harbour, July 2022 45
Image 2 Boats docked in the harbour, July 2022 45
Image 3 Example of Value Card Piles 56
Image 4 Research Base and Campsite, July 2022 62
Image 5 Definition of the Arctic 79
Image 6 Status Mediterranean Marine Protected Areas 91
Image 7 IceWhale Code of Conduct 113

List of Maps

Map 1 Iceland Case Study Site 81
Map 2 Húsavík and oceanic bay of Skjálfandi 86
Map 3 Pelagos Sanctuary for Marine Mammals 93
Map 4 Transport Choices 125

Acronyms

ACCOBAMS	Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and contiguous Atlantic area
ASCOBANS	Agreement on the Conservation of Small Cetaceans of the Baltic, North East Atlantic, Irish and North Seas
BBNJ	Biodiversity Beyond National Jurisdiction
CAFF	Conservation of Arctic Flora and Fauna
CAS	Complex Adaptive System
CIMA	Centro Internazionale in Monitoraggio Ambientale
CMS	Convention on Migratory Species
DG ENV	European Commission Directorate General for the Environment
EBM	Ecosystem-based Management
ECS	European Cetacean Society
EEA	European Economic Area Agreement
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GBF	Kunming Montreal Global Biodiversity Framework
GDPR	General Data Protection Regulation
HQWW	High Quality Whale Watching Label
ICCAT	International Commission for the Conservation of Atlantic Tunas
IFAW	International Fund for Animal Welfare
IMMA	Important Marine Mammal Area
IOC-UNESCO	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization
IPBES	Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
IWC	International Whaling Commission
MA	Millennium Ecosystem Assessment
MedPan	Network of Marine Protected Area managers in the Mediterranean

MPA	Marine Protected Area
MSFD	EU Marine Strategy Framework Directive
MSP	Marine Spatial Planning
NOAA	National Oceanic and Atmospheric Administration
OECMs	Other Effective Area Based Conservation Measures
PAME	Protection of the Arctic Marine Environment
PCAA	Planning for Coastal and Marine Areas Act
PNS	Post-Normal Science
PSSA	Particularly Sensitive Sea Areas
SDG	Sustainable Development Goal
SPAMIs	Specially Protected Areas of Mediterranean Importance
SPA / RAC	Regional Activity Centre for Specially Protected Areas
UNEP	United Nations Environmental Programme
UNCLOS	United Nations Convention on the Law of the Sea
UNFCCC	United Nations Framework Convention on Climate Change
WDC	Whale and Dolphin Conservation
WWF	World Wildlife Fund

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1. Introduction

1.1 Setting the Scene: Trajectories for the Oceans and Seas

Since ancient times, covering the eras of maritime societies such as the Phoenicians and Vikings, the oceans and seas have been pivotal conduits for maritime trade, advancing knowledge and literacy, enlarging civilizations, and leaving behind legacies of explorations and conquest. Various relationships and worldviews towards these ecosystems endure and evolve across cultures, as observed in the practices of fisherfolk and hunters including the Inuit in Greenland, in the cultural relations to whales among the Iñupiaq Alaskan natives, to the ways of life of the Bajau sea people in Southeast Asia, and among each of us - the relations to the oceans and seas are diverse and transformative. In our times, marine spaces, the geographies of focus in this research, remain strategic sites of interest for a plethora of confluent and competing activities aimed at furthering and securing economic development including in sectors such as fisheries and energy, to establish geopolitical power, for claiming maritime routes, and likewise for preserving and scientifically advancing our understanding of marine ecosystems. Synergistic planning, management, and mediation practices guided by visions and values are indispensable in political arenas, which are progressively meta-coupled. However, stakes and uncertainties are high as climatic changes and stressors linked to environmental changes alter, among others, the size, biodiversity, access to marine space, and the risks and uncertainties on which these can be planned.

The development trajectories of marine spaces are of global importance and of fundamental value to the ways of life of coastal and oceanic communities, and for the sustenance of all ecosystem constituents. In a world inhabited by an estimated 8 billion people with resource needs, and at times, detrimental consumption patterns, the sustainability and limits of systems are yet challenged. This urges for rethinking governance solutions beyond panaceas and management practices cognizant of and responsive to complex ecosystem dynamics. The need for quality scientific knowledge, innovative, and agile approaches to ocean governance has become a matter of urgency considering anthropogenic impacts such as pollution, overpopulation, and

the decline of biodiversity resulting in significant changes in the biophysical and biodiversity dynamics of natural systems. Scientific advancements and innovations, as well as policies and governmental frameworks, are in development ranging from technological evolution and biodiversity rewilding schemes to renewable energy infrastructure. Herein, transformative change[1] and viable governance schemes for future systems sustainability ought to be underpinned by the plurality of knowledge systems and values.

The bodies of water on earth are vital tributaries to the life-support system of all life on earth, and in their functions contribute to the moderation of climate change, often being referred to as the lungs and carbon sinks of our planet. The ocean[2] is the largest ecosystem on Earth and its value has been assessed from multiple perspectives including its role as a significant regulatory constituent of the Earth system due to its role in climate and carbon storage (Steffen et al., 2011) as a producer of oxygen for life on Earth (Grégoire et al., 2023), and as a source of essential ecosystem services for humans (IPCC, 2023). In these developments, combined with novel possibilities that may arise with technological advancements, global actors increasingly look towards untapped reservoirs of resources, including in the depths of the oceans (such as via deep-sea mining), innovation in the renewable energy sector, and the transition of sectors such as aquaculture, fisheries, and coastal tourism. In this setting, tasks are ahead for judicious, inclusive, ethical management and planning to support transitions, enable climate change-related adaptation, and rejuvenate ecosystems and biodiversity.

In response, on a global scale, a suite of international obligations and institutional and governmental agreements have been formulated to mitigate multiple stressors and develop common grounds and values to address contemporary social and environmental challenges. The creation of global instruments and efforts under the auspices of the European Union (EU) and in the context of its acquis communautaire, as well as frameworks advanced by the United Nations (UN), evidence the urgency

[1]Considering the definition by IPBES transformative change is "a fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values, needed for the conservation and sustainable use of biodiversity, good quality of life and sustainable development." (IPBES, 2019)

[2] In my writing, I frequently use the singular *ocean* while yet recognizing that, in geographical terms, the definition of the oceans has been changing, being at times categorized into seven regions i.e. the Arctic, North Atlantic, South Atlantic, North Pacific, South Pacific, indian, and Southern Oceans at times also referred to as the Seven Seas, or also into five i.e. the Atlantic, Pacific, Indian, Arctic, and Southern Antarctic (NOAA, 2023)

and commitment to addressing the ocean and wider biodiversity challenges. These have been reflected in declarations such as the UN Decade of Ocean Science for Sustainable Development 2021-2030 and the UN Decade on Ecosystem Restoration 2021–2030, the EU Blue and Green Deal, the EU Nature Restoration Law, the EU 2030 Mission to Restore our Ocean and Waters, the EU Biodiversity Framework, and the 1992 Convention on Biological Diversity. Among them, the United Nations Decade of Ocean Science for Sustainable Development has created a global momentum for ocean actions, recognition, and visibility of actors and places. The decade is positioned as a pivotal timeframe to support the transformation of relations and perceptions between oceans and societies (Jefferson et al., 2021) as exemplified by challenges 6 *Community Resilience* and 10 *Change Humanity's Relationship with the Ocean*, the latter of which focuses on attending to the multiple values and services of the ocean for human well-being and sustainable development (UNESCO, n.d.).

Furthermore, the 2030 Sustainable Development Goals (SDGs) agenda continues to be an integral framework for operationalizing goals for a more sustainable future based on common goals. Goal 14 focuses on conserving and sustainably using oceans, seas, and marine resources and highlights the need for planning and management of the oceans and seas (United Nations Department of Economic and Social Affairs, 2023). To operationalize goals linked to frameworks such as the SDGs, it has been recognized that the realization of these global goals needs to be localized to succeed (Dankel et al., 2022). Coastal areas are particularly identified as areas of high activity and human impact (ibid). The legal and policy frameworks for marine management include Maritime Spatial Planning (MSP) and the UN Convention on the Law of the Sea (UNCLOS), the latter of which provides the overall legal framework for ocean activities and thus also covers the use of marine space. The cohesion between MSP and the European Green Deal has been advanced to promote synergies between the two frameworks and to achieve cross-sectoral policy objectives. Beyond the EU, cooperation with the Intergovernmental Oceanographic Commission within UNESCO (IOC-UNESCO) through programs such as MSP Global has been advanced to widen the perspective of planning and developing international guidelines to respond to the global scale of MSP (European Commission, n.d.).

Considering the multiple objectives of marine planning, there has been an increased interest in conservation (Bennett, 2019). More recently, 2023 marked a historical moment for marine governance wherein the High Seas Treaty was formalized, formally known as the United Nations Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ). The European Parliament highlights the role of multilateralism and international ocean governance in governing global commons (European Parliament, 2024). Operationalized under the United Nations Convention on the Law of the Sea (UNCLOS), the treaty sets a global basis and procedure for the establishment of large-scale MPAs in the high seas (European Commission, 2023). As a result, the oceans and spaces beyond coastal areas have garnered further recognition on an international scale for biodiversity protection and as a global heritage, which is in line with the goals of the Kunming-Montreal Global Biodiversity Framework (GBF) where 30% should be protected by 2030. Moreover, the year 2024 has been paramount for setting the Ocean Decade agenda through the Ocean Decade Conference in Barcelona, which, among others, has resulted in the Barcelona Statement, further defininig and outlining the priorities of action for the coming years. In parallel, for instance, in the Mediterranean, agreements have been formed to fund and commit to the marine conservation of the Mediterranean Sea, including through a $60.8 Million pledge by the Prince Albert II of Monaco Foundation. This commitment was announced in the 2024 Ocean Conference in Greece wherein funding has been announced towards phasing out harmful activities including bottom trawling, strengthening existing MPAs, and inspiring support from donors and partners (Fondation Prince Albert II De Monaco, 2024).

1.1.1 On Science for Society in an Era of Accelerated Change

One pathway for locating the current call for action and rethinking humanity`s relationships in a wider planetary and temporal context is along a geological scale, that is, reconceptualizing sustainability in *our times*. Forming part of this stream of thought, the idea and concept of the Anthropocene has seen proliferation across disciplinary and public discourses and has been proposed as the current geological era (Crutzen & Steffen, 2003; Steffen et al., 2007). However, scientific debates over the precise

ushering of this era as a geological event continue (Gibbard et al., 2022) and have been marked by the introduction of alternate concepts such as the post-Anthropocene and Capitalocene. In the context of this research, the Anthropocene concept is positioned as a useful and salient frame for discussing the multiple and accelerated environmental transformations. It is further recognized that its context carries with it a morally charged notion (Jamieson, 2015) wherein humans are positioned as part of the Earth system and, of which *some* of the global population, assume the role of the most impactful transformers of socio-ecological systems (Bai et al., 2016) and as a *hyper keystone* species in the ecosystem (Worm & Paine, 2016). Our human impact has been well established and scientifically evidenced, and for instance, can be scaled from a quantitative perspective in relation to the human-made mass, or Anthropocene mass, compared to the overall living biomass (Elhacham et al., 2020).

The Anthropocene may provide a frame for rethinking humans as active stewards of life support systems in a time in which a fundamental shift is needed in relations to the planet (Steffen et al., 2011). Such a discussion can further academic conceptualizations of the ontological divide between humans (as subjects of entitlement) and nature (as objects of nature) that have persisted in Western thought (Bonneuil & Fressoz, 2017) to define sustainable practices in line with system limits. As put forth by Bai et al. (2016), the Anthropocene context recognizes the impact and likewise the agency of humans in socio-ecological systems, offering a setting for the reconceptualization of our role in the transformation of the future (ibid, p.352). Such conceptualization can lead to an entry point for scholarly debates on the role of ethics, values, and relations to the wider web of life, and may also act as a catalyst for a potential reconfiguration of human-environmental relations including to the ocean which remains "tethered to the Holocene" (Stephens, 2022). Scientifically, it has been established that the accelerated rate of anthropogenic changes in the environment surpasses the envelope of natural variability (Steffen et al., 2007). Efforts to enhance measures and engage all societies require more adequate mechanisms that prompt collective reflection on stewardship, values, and fundamentally, the multitude of worldviews to guide responses.

Finally, at the Anthropocene and sustainability nexus, Earth system dynamics indicate the imminence of tipping points, increasing uncertainties, and complexities which are altering the basis on which development occurs (Skrimizea et al., 2019). Changes to the oceans on a global scale associated with the Anthropocene have been analyzed by scholars including Tyrrell et al. (2015) who identify these to include the warming of the oceans, sea ice loss in polar oceans, sea-level rise, acidification, and wider impacts on marine ecosystem dynamics, some of which remain unknown. Future research on the Anthropocene requires an expansion of the subjects of study, exploring the future and confronting the challenges of guiding a path forward and designing solutions with complexity, non-linearity, and uncertainty (Bai et al., 2016). Future research may also address these through an ethical lens. While the Anthropocene is mainly oriented at the Earth system scale, science for society and developing solutions to human-environmental challenges, such as for marine management, requires local approaches that attend to resource users and may support knowledge production more aligned with local contexts (Aswani et al., 2018). Here, place-based management has become a popular notion and approach to marine ecosystems for dealing with complex system dynamics (Young et al., 2007) due to its potential to support conflict resolution and provide a structure for management. Nations with coastal areas are increasingly advised to transform the often fragmented marine regimes and to develop integrated and holistic management approaches. To succeed, governance mechanisms aimed at being integrated, such as MSP and ecosystem-based management, will involve the transformation of governance models and institutions including their practices and values. For the sciences, this becomes an opportunity, and I would propose, a responsibility, to discuss and discern alternative paradigms in the Anthropocene context.

1.2 Research Overview

Before delving further into the theoretical and methodological frameworks guiding this research, the research questions, challenges, and premises are laid out. The thesis commences with the premise that planning for the environment is inherently complex and involves plausible trajectories at multiple scales which ought to be managed with and for the populations affected by them. In response, the research looks at two geographic contexts i.e. a remote coastal community in Northeastern Iceland and its

oceanic bay, and a transboundary marine sanctuary managed by Italy, France, and Principality of Monaco in the Mediterranean. The study sheds light on the value pluralities and different management horizons for marine planning when thinking about global tourism and marine mammal conservation.

Empirically, the research is bound by its common investigation into the values of a plurality of actors. One of the overarching objectives therein is to facilitate a scholarly contribution on how to define marine planning in the Anthropocene context and to contribute with an analysis of values to be mobilized into marine and coastal planning. An additional sub-objective is to contribute to the development of sustainable management of ocean and coastal activities with attention to more inclusive and value-driven management regimes. As such, the expansion of values is deemed a necessary analytical approach to respect the diversity in the system and gauge the complexities involved. Herein, I recognized that values are conceptualized with variety across disciplines. One of the objectives was to find and inform about how interviewees define, in their own words, values and thereby give these meaning in context. Beyond values, it was anticipated that their contributions would also inform about their uses and knowledge of the marine space. This approach contributes to MSP in practice by enabling the procedural inclusion of stakeholders in planning, and theoretically by humanizing the seas and expanding the range of values to be considered for a more adequate ecosystem-based approach. Finally, as put forth in the objectives of JUSTNORTH, and echoing this stance, decisions on development in the Arctic have been primarily informed by utilitarian ethical principles in centers of power which are often disconnected from local realities. Specifically, for the Arctic, the region is anticipated to play a more pivotal role in the green transition and interests in increased economically driven marine activities can be observed. Therefore, values ought to be a baseline for developments and defined with local rights- and stakeholders

Research Questions

Which are the values of different stakeholders involved in or affected by the sustainable management and planning of marine socio-ecological systems and for cetaceans? What are the convergences and divergences among them?

1. Which are the values of local actors that should be included in future marine and coastal planning?

2. What insights can be gathered about the values of international tourists for ethical tourism management in the marine space?

3. What are the values of institutional and business actors in charge of the activities and sustainable management in the marine space and for cetaceans?

Research Challenge

Common research approaches addressing value orientations in the marine realm and for the marine space remain examined primarily through economic valuation and cost-benefit analyses (Engel et al., 2020; IPBES, 2022) which provide valuable and complementary insights, particularly for policy. However, transformative change will require the uptake of a system-wide strategy and considerations that cross a wider set of values (Pascual et al., 2023). Therefore, this research seeks to define values through the descriptions of interviewees to ground and advise sustainable futures with their understanding of values. The research advanced in this study, specifically for the Icelandic context, can be further viewed in synergy with the study by Malinauskaite et al. (2021) which examined the socio-cultural values of multiple ecosystem services sourced specifically from whales in Skjálfandi Bay. Malinauskaite et al. presented a significant scientific advancement to integrate socio-ecological system valuations in the Arctic and which has the potential to inform the baseline of MSP. Therefore, a complex-aware and integrated view of values for MSP is needed to advance towards an ecosystem-based and more just process, to which this research seeks to respond.

Moving from the theoretical framework of MSP to informing the process through the values and contextual realities on the ground, this research commenced its investigation in the context of ongoing Icelandic marine planning legislation introduced in 2018 by the Iceland Parliament as the Planning for Coastal and Marine

Areas Act (PCMAA) (Conde et al., 2022). Therein, Skjálfandi Bay has become subject to coastal and marine planning as launched by the Norðurþing Municipality (Norðurþing, 2020) which has yet proven insufficient in its procedural dimension to coordinate the multiple activities and develop inclusive processes. Furthermore, besides the context of ongoing marine and coastal planning, the study was based on knowledge acquired in literature indicating discussions about a Marine Protected Area (MPA) in Northeastern Iceland. As such, beginning with *Section 5.1*, this research contributes to the procedural justice dimension as set forth within the frame of JUSTNORTH, and to the early stages of MSP implementation in the Arctic including marine protection which remains scarce in the Arctic and especially in Iceland. The research objectives encompass establishing a timely context for marine planning and regulations while identifying plausible scenarios based on existing and emerging developments. This is followed by making explicit relations between values that emerged as important and their descriptions and knowledge to shed light on aspects for the prospects of economic development and marine planning. Finally, the research is complementary to the wider objectives of JUSTNORTH and based on a shared metric for the discussion of values and justice across case studies.

The research presented in *Section 5.1* addresses local values in the case of Húsavík and defined the path and sequence of this research. In line with the literature preparations that took place for *Section 5.1*, the theoretical framework begins with a discussion of the MSP framework given its relevance for the case study context. The EU framework was suggested as suitable for discussion given its applicability for the EU at large and recognizing the multiple interrelationships between the EU and the Arctic. Furthermore, a discussion of values within socio-ecological studies was approached with qualitative research focused on values. The pluralities, particularly from a multi-stakeholder perspective and the bringing together of different levels, have not been adequately recognized in resource management and marine planning. Economic values and approaches (including ecosystem services and pay-for-services) approaches have been dominating discourses. These complexities have been captured by the Barcelona school of thought which has made significant contributions to the advancements of the *languages of valuations* (Zografos, 2023) by drawing attention to the interlinkages of environmental policy and sustainability governance. Moreover,

while there have been scholarly developments in recent decades, marine space often yet remains approached as an *unpeopled space* (Crowder & Norse, 2008) to which scholars have responded with a call towards humanizing the spaces, for instance approaching the seas as *Peopled Seascapes* (Shackeroff et al., 2009). The research presented in *Section 5.2* is focused on tourists' values and environmental orientations which are discussed along the spectrum of environmental ethics and philosophy to inform about the diverse values, behavioral insights, and contexts of their experiences. The rationale which guided this study was guided by the objective of informing the present marine management context and tourism regulations. Moreover, environmental ethics was approached as one theoretical model to be integrated into the assessment and evaluation of areas such as Skjálfandi Bay. Regarding tourism, like many other localities globally, coastal areas and their cultures have transformed globally indicating livelihood transitions and the diversification of social, cultural, and economic activities. Such changes in former fishing villages have been a common phenomenon observed in localities in the Mediterranean including the Ligurian coast and the Cinque Terre, the Catalan coast of Costa Brava, as well as in the Icelandic coast. Here, the research sought to fill the unattended gap of conceptualizing environmental ethics and tourism concerning marine mammals (in the wild) (Fennell, 2013). Moreover, whale watching, a commercial activity and private-sector-based, represents an activity that may be harmonized with ecosystem sustainability. However, the activity continues to be managed with knowledge uncertainties to achieve sustainable management and human-environmental interactions (Suárez-Rojas et al., 2023). The results may support development that reflects and activates principles of ecocentrism in line with sustainable development (Acott et al., 1998) which can be a suitable pathway. Theoretically, the research in *Section 5.2,* is approached based on one typology of environmentalism namely the spectrum of environmental positions as framed in the ecocentrism-anthropocentrism literature. In the context of the Anthropocene and climate challenges, the research is proposing regimes that consider a wider system of values for management and conservation. In such complex situations of decision-making, complexity, and uncertainty, ethics can lend weight to the course of developments.

Following studies in Iceland and the discussion of management measures for the marine space, *Section 5.3* advanced in studying a unique transboundary framework and looks to a geographic space where a MPA for marine mammals preceded MSP. One of the levels of marine governance belongs to the philosophical and normative dimensions of governance systems (Johnson et al., 2019). Theoretically, this section is introduced on the premise that marine conservation and management require the transformation of institutional values and practices (Kelly et al., 2018). This research follows the idea that values shape social interactions and are key to the governance level (ibid). Therefore, the goal is to investigate the normative structure of an existing MPA. The findings can contribute to the preservation and regeneration of habitats wherein MPAs can serve as a starting point for measures aimed at managing human activities. While science has progressed and established sound reporting to inform the ecological and biological aspects of the Pelagos, the marine social sciences perspective has been lacking. To bring together the human and environmental dimensions, within the discussion, and based on the researcher`s *a priori* identification of research variables in the case-study context common to the Icelandic case (i.e. whale watching, marine planning, cetacean conservation). One activity, specifically whale watching, is brought forward as one of the emerging activities to be further contemplated in its role in the Pelagos. Based on a literature review that guided the research in its initial stages, it was identified that whale watching has been categorized as a *highly appropriate* issue to be addressed when considering the various activities impacting cetaceans in the Pelagos (Notarbartolo di Sciara et al., 2008; Notarbartolo di Sciara et al., 2016). While marine tourism activities such as whale watching are likewise activities which, when insufficiently managed, be an activity with negative impacts, whale watching has also been positioned as an activity to offer a point of departure for sustainable whale watching, demonstrating a potential to further channel the value of the Pelagos through ecotourism (Notarbartolo di Sciara & Agardy, 2016).

As advanced by Charles & Wilson (2009), processes linked to MPAs require equal attention to the biological and oceanographic dimensions and the human dimensions including the institutional values and set-up managing the MPA. As highlighted by Maestro et al. (2022), MPAs can become subject to mere designation resulting in paper parks, rather than becoming MPAs able to meet the objectives underpinning their

creation. The values of institutional actors and businesses are rarely addressed through a scientific approach although it has been recognized that the human dimensions, including the institutional mechanisms, are critical to MPA success as supported by Charles & Wilson (2009) and Maestro et al. (2022), the latter of which has pointed out that the study of MPA management is innovative and understudied. Lastly, for this research, and considering the contribution to studies about the Pelagos case, there does not exist a socio-ecological study[3] addressing the values of actors invested in the Pelagos Sanctuary for Marine Mammals.

To sum up, the research trajectory and thesis transition from exploring a wider set of values at the local scale to the philosophical practice of discussing environmental orientations at a global-within-local scale to finally engaging with actor values (institutional including scientific and business) in the case of a sanctuary for marine mammals. The rationale therein is to offer a multi-stakeholder approach which moves gradually from the local scale in Iceland to a more globalized scale that meets at the local scale, also in Iceland, and finally to a transboundary scale approached from within a local scale in Italy. The case of a remote coastal community namely Húsavík and its oceanic bay Skjálfandi were identified as a relevant case study the values of local stakeholders and inform ongoing and future marine and coastal planning. The case study is likewise a suitable case for research on international tourism and human-wildlife experiences given that whale watching has become as a core pillar of the town`s economy, and which has become one of the main destinations in the European Arctic for viewing them in the wild. However, planning for areas where cetaceans and marine mammals move represents unique challenges for marine and coastal planning policies and likewise for conservation objectives. Therefore, it was identified that the unique transboundary area of the Pelagos, a sanctuary specifically dedicated to marine mammals, would be an excellent case study to complement the research. Therein, it was identified that the investigation of institutional values is premised on the stance that institutional innovation is needed to facilitate real-world change and therefore, institutional values need to be made explicit and brought forward. The insights on transboundary governance therein will continue to be of high importance also in the

[3] The closest study identified through the CIMA network (*not accessible online*) is a Master thesis titled *Thinking about Whales. An anthropological study on whale-watching between the Arctic and the Mediterranean: communication, representation and imagination* (Giacomini, 2022).

Arctic region as climatic and environmental changes bring with them uncertainties and potential alterations to current configurations. Following readings of governance literature and positioning the role of a plurality of perspectives and knowledge for planning, I sought to incorporate different level of actors, all of which influence and shape the management of marine space and the definition of sustainability. In the case of the Pelagos, I identified that institutional, scientific, and business actors should be contacted to learn about the power-relations, rationale, and values which shaped the creation and present management of the area. Given that it is not only coastal community in specific which depends on and is invested in the area (unlike in the case of Húsavík where the local level may be argued to have a more primary role), a wider approach and interest in actors was deemed appropriate. To sum up, from a chain perspective, *Section 5.1* (Iceland-Marine Planning) is tied more closely to the research carried out in *Section 5.3* (Pelagos-MPAs) also considering the planning stages and timeframe of the doctoral research, while the research in *Section 5.2* (Iceland-Tourism) is tied to *Section 5.1*. Finally, *Section 5.1* is located at the crossroads of MSP and values. *Section 5.2* continues at the crossroads of environmental ethics, values, and tourism studies related to the marine realm, and *Section 5.3* at the intersection of actor management and MPAs.

2. Theoretical Framework

2.1 Systems Thinking for Sustainability and Learning

The science of complexity theory, at times used interchangeably with systems theory, is dedicated to the study of systems and emanates from various disciplines. Simply put, complex systems, in their structure and behavior, are around and within us, including the cosmos, the brain, and society. The term *complexity* has become vernacular in scientific and institutional discourses and is at times treated synonymously with *complicated* yet the two differ in that *complexity* denotes the structure of a system and the dynamics of its properties including non-linearity, emergence, and feedback (Byrne & Callaghan, 2022). Complexity theory emerged from various disciplines that are yet united by common tenets and a philosophical stance that can act as a mode of thinking for observing and recognizing the intelligence of systems, including system-wide changes. Moreover, complexity refers to the properties of systems while a system is made up of interrelated elements and a complex system is one where the "whole is greater than the sum of its parts" (ibid, p.4). In this research, a complex system approach can be understood as adopting a mode of thinking, a conceptual lens, for observing and recognizing the intelligence of systems, including system-wide changes. Therefore, complexity thinking, as an epistemological approach, can offer a lens for learning about social and ecological system interactions.

Thinking about a complex system encourages relational thinking, providing tools, ideas, and valuative orientations to assist in moving from things to processes, from static states to dynamics, and from parts to whole (Sterling, 2003). According to Capra (1996), systems thinking is about stepping out of common silo-oriented thinking to thinking in context, processes, and relations. Furthermore, a system can be closed or open which is a key condition for understanding the behaviors and properties. Biologist and systems thinker Ludwig von Bertalanffy (1968) advanced General Systems Theory to attend to the dynamics of a system in relation to its environment. He explains that an open system is subject to a continuous exchange of matter and energy wherein properties interact in a non-linear way. With non-linearity, a system shows emergent (Lat. *emergo* transl. to arise or come forth) behavior. Therefore, in

essence, the behavior of the individual parts does not predict the behavior of the whole. a marine socio-ecological system is a complex system "exhibiting the principal hallmarks of complex systems, including the possibility of sudden shifts in state among alternative basins of attraction and both periodic and aperiodic dynamical behavior" (Fogarty et al., 2016, p.1). The dynamics in systems, and the flow of energy, can be further understood in terms of stocks, funds, and flows which enables the identification of resources and properties which are renewable and non-renewable (Georgescu-Roegen, 1976). To conclude, at this point, it ought to be remembered that complex systems have histories and are conditioned by where they have been which in turn may influence the condition and sensitivity to where the system is moving (Byrne & Callaghan, 2022).

2.1.1 Science for Policy Interface

Post-normal science (PNS) is approached as an operational way to discuss complexity and planning. The core tenets of PNS and complexity theory both acknowledge the scientific necessity of recognizing uncertainty and complexity in scientific research, while also seeking to overcome the shortcomings of traditional scientific approaches (Funtowicz & Ravetz, 1994). Operating at the science for policy interface, PNS emerged as a framework for scientific advice for policy and governance in the 1980`s. Its philosophy and practice encourage a move beyond the simple or traditionally framed *normal* (in the Kuhnian sense)[4] view of sciences to enable processes for managing complex environmental conditions. PNS is a science and problem-solving framework for issues in conditions characterized by the mantra "facts are uncertain, values in dispute, stakes high, and decisions urgent" (Funtowicz & Ravetz, 1994, p.1882). PNS reflects complexity by recognizing the legitimacy of multiple perspectives, also known as the *extended peer community*, a community that is engaged in the quality assurance process of scientific data, i.e. the "scientific process now involves the management of irreducible uncertainties in knowledge and ethics, and the recognition of complexity, implying the legitimacy of a plurality of perspectives and ways of knowing." (Funtowicz & Ravetz 1994, p. 1885). The guiding premise is that the role of science has transformed and rather than moving towards

[4] see T. Kuhn (1970). *The Structure of Scientific Revolutions*

control and certainty, science is prompted to manage uncertainties, thus positioning the scientist as a manager of uncertainties in pursuit of quality scientific information for policy. Moving forward with this stance in the context of environmental issues thus implies that ethics and issues of equity for stakeholders and the ecosystem at large are recognized in the PNS approach (Funtowicz & Ravetz, 1994). Adopting a PNS approach and thus guided, among others, by the objective of knowledge quality, it becomes critical to engage local knowledge-holders and mobilize their knowledge, values, and beliefs into decision-making processes (Chuenpagdee & Jentoft, 2019).

Developing scientific information for processes such as marine planning or protection with the public and stakeholders is an avenue not only for democratizing the process and including different kinds of knowledge but also the information will more likely be seen as legitimate, credible, and salient (Cash et al., 2003). A PNS approach investigates the values in dispute and gives room to identifying and responding to existing uncertainties for governance. Therefore, uncertainty is managed and values are made explicit in the scientific process (Funtowicz & Ravetz, 1993; Funtowicz & Ravetz, 2008). PNS, in its philosophy and practice, encourages a movement beyond the simple view of sciences to enable processes for managing complex environmental conditions. To PNS the "management of complex natural and social systems as if they were simple scientific exercises has brought us to our present mixture of triumph and peril" (Ravetz 1999, p.653). Funtowicz and Ravetz distinguished the characteristics of complex issues according to two dimensions: systems uncertainties (i.e., the complexities of the system under consideration, including technical, scientific, and managerial aspects) and decision stakes (potential costs and benefits to concerned parties) (ibid). Funtowicz and Ravetz, observe that despite the technological and scientific advancements we have achieved, the present environmental challenges and threats are challenges that are to be dealt with differently. It is in these situations where facts are uncertain, values are in dispute, stakes are high, and decisions are urgent (Funtowicz & Ravetz, 1993).

Notably, PNS reflects the principle of complexity by recognizing the legitimacy of multiple perspectives, known as the extended peer community, engaged in the quality assurance process of scientific data. The PNS approach integrates non-academic

knowledge and can be understood as transdisciplinary (Chuenpagdee & Jentoft, 2019). Rather than traditionally performing experiments in a laboratory, classroom, or industry, PNS moves outside these boundaries. With this, the role of science has transformed, and rather than moving towards control and certainty, science is prompted to manage uncertainties, thus positioning the scientist as a manager of uncertainties in pursuit of quality scientific information for policy (Funtowicz & Ravetz, 1993). According to PNS, the plurality of values, often present in resource management contexts, can lead to highly politicial processes, which should be addressed with the extended peer community including indigenous knowledge-holders, their values and beliefs (Chuenpagdee & Jentoft, 2019).

2.1.2 Transdisciplinarity

> *"Transdisciplinarity recognizes that we are living in a complex, uncertain, and pluralistic world (...) clearly recognizes the role of values in inquiry, rather than attempting to suppress or "bracket" them, it engages the inquirer as an active, ethical participant in world affairs."*
>
> (Foreword by Montuori in Nicolescu 2008, p. ix)

The challenges we face today including climate change, forced migration and inequality are transdisciplinary. Transdisciplinarity can be defined as "more than a new discipline or super-discipline is, actually, a different manner of seeing the world, more systemic and more holistic." (Max-Neef 2005, p. 15). It is an approach that moves out into the real world where the researcher becomes an active component of research engaging with those who are impacted by issues. As such, it is an approach which seeks to focus on the "practical applications of knowledge" (Nicolescu 2008, p.124). This research moves forward with the stance that marine environments and the constituent human and non-human life are valued and perceived in multiple ways, and their management may be better addressed through transdisciplinary research and the inclusion of stakeholder`s knowledge, values, solutions, and understanding of problems (Head, 2022). As such, transdisciplinarity is as a strategy and research method to tackle the challenges of marine and ocean governance and to acknowledge stakeholders working outside academia as collaborators to tackle the increasing pressures of human-environmental relations

including in the ocean space (Strand et al., 2022). In addition, its practice recognizes different ways of knowing and offers a way to attend to the variations of how multiple actors value a system (Johnson et al., 2019). Transdisciplinarity is furthermore premised on the belief that different ways of knowing exist (ibid). The emphasis on transdisciplinarity in the field of marine research has been advanced more recently by scholars for instance in the volume edited by Gómez & Köpsel (2022), a volume in which multiple chapters advance arguments for the integration of diverse knowledge systems while posing critical inquiries regarding the epistemological transformation necessary to effectively navigate an interconnected socio-ecological system.

Transdisciplinarity is often credited to the Swiss philosopher Jean Piaget (1896-1980) and belongs to the paradigm of complexity. As the prefix t*rans* suggests, transdisciplinarity concerns that which is at once between the discipline, across the different disciplines, and beyond all disciplines (Nicolescu, 2010). In his seminal work on *Foundations of Transdisciplinarity* Max-Neef (2005), defines transdisciplinarity as a different manner of seeing the world, more systemic and more holistic" (ibid, p.15) wherein four levels interact, beginning with the lowest asking *what exists*, *what we are capable of doing*, *what we want to do,* to the top reaching the purposive level with *what we must do / how to do what we want to do*. Connected along any multiple vertical relations, they define transdisciplinary action (ibid, p.9). Finally, within the practice of the researcher, principles of transdisciplinary are understood as moving beyond the discipline of the researcher (Nicolescu, 2014) of seeing the world differently, more holistic and systemic (Max-Neef, 2005), and by attending to both the social and ecological dimensions of the research.

2.1.3 Planning with Complexity-Awareness

Planning for the sustainability and management of aquatic environments, particularly the oceans and seas, necessitates the implementation of complexity-aware scientific and policy approaches. Beyond the traditional sector or single-discipline-oriented methods, these comprehensive strategies consider the complexity, uncertainties, and constant evolution of marine socio-ecological systems. Such logic is salient both for the practice of science and for legal instruments, as recognized in the Preamble to the United Nations

Convention of the Law of the Sea "the problems of ocean space are closely interrelated and need to be considered as a whole" (UNCLOS, 1982, p.25). The impacts of climate and environmental changes are system-wide and thus require approaches that observe and learn about the system at large and in relational terms. The spaces where humans and the environment relate and interact with each other are coupled systems, also referred to as socio-ecological systems, with humans embedded in the biophysical world and part of the ecosystem (Crowder & Norse, 2008). In so-called Western traditions, this view represents a recent ontological shift in addressing human-environment relations and challenges scientists to take a relational approach to interactive interactions (Schoon & Van Der Leeuw, 2015). Systems thinking further attends to scales and recognizes their multiplicities in governance and in planning which facilitates a broader perspective of dynamics and interests. Another addition that has been made is that of adding the term *adaptive*, thus transforming into the commonly adopted Complex Adaptive System (CAS) approach. Thereby scholars sought to highlight the adaptive capacity which is "crucial for the ecosystem's ability to maintain certain processes under times of change." (Norberg 2004, p.1269). In responding to contemporary challenges in marine governance, a system perspective thus offers a lens to think about the multiple interactions between biophysical and human forces (Young et al., 2007).

Social-ecological systems are defined as "integrated complex adaptive systems in which social and ecological subsystems are coupled and interdependent, each a function of the other, expressed in a series of mutual feedback relationships" (Berkes 2017, p.3).[5] In the conceptual formulation of socio-ecological systems, these are inherent in complex interactions which can be analyzed by observing the dynamic relations between properties. In this research, a marine ecosystem, due to its inherent character, can be viewed as an open system and a living organism constantly in exchange of matter and energy (von Bertalanffy, 1968). Given the dynamics and fluidity of marine ecosystems, adopting the approaches of complexity theory can provide a valuable and one closer to actionable marine planning and policy efforts. As such, a systems approach to governance includes feedback (monitoring systems) (Lewison et al., 2018), coping and adjusting to uncertainty, and adopting adaptive governance measures (Ehler & Douvere, 2009).

[5] Fikret Berkes commonly uses the term *social* instead of *socio* to emphasize the equal importance of both subsystems, the ecological and the social.

Whole systems thinking, according to Stephen Sterling (2010), can support the approach to contemporary problems by learning in whole system terms which he explains to be the coming together, a syncretisation, of ecological thought and systems thinking. He proposes that a whole system thinking is necessary to approach complex issues as it offers an approach that is multidisciplinary, holistic, flexible, and integrative which moves away from the analytic, linear, and binary ways of thinking (ibid, pp.39-40).

2.2 Approaches to Planning Marine and Coastal Space

This research commenced its theoretical framing guided by marine and coastal planning approaches within the EU, as laid out in the MSP framework which has been operating at an advanced stage in Europe and has gained momentum globally in the past decade. Efforts at marine governance are evidenced by the various designations and frameworks that have been created to define and steer the management of the marine environment, including sea use management, ocean zoning, ocean planning, marine planning, MSP, maritime spatial planning, marine and coastal spatial planning, and maritime space planning (Trouillet, 2020). In search of uniting tenets within the MSP framework, a discrepancy in semantics and designations is detected which poses challenges for scholars seeking to synthesize narratives about MSP. This research focused on the MSP framework which represents one of several approaches to area-based management that emerged as a concept and transformed into a recognized practice for planning the marine environment in the past decades (Ehler et al., 2019). On an international and institutional scale, the UNESCO-IOC defines MSP as "a public process of analyzing and allocating the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives that are usually specified through a political process." (Ehler & Douvere 2009, p.18).

According to the objectives and the language adopted by the UNESCO-IOC (2009), one of the central goals of MSP is to resolve conflicts. Environmental conflicts can be understood as "social conflicts over the environment that manifest through mobilizations by individuals or groups in response to perceived environmental threats with detrimental social impacts." (Scheidel et al. 2020, p.2). For development strategies and based on insights in peace and conflict studies, complexity has been argued to call for bottom-up

approaches (de Coning, 2020). The value of stakeholder participation in MSP carries with it a promise to democratize planning processes and decision-making about the oceans and seas (Flannery et al., 2016). Nonetheless, while plans advocate in a normative manner for the genuine participation of stakeholders, often processes remain performed in a top-down manner.

In response to the increasing uses of, risks, and interests in the marine realm, a space where conflicts and opportunities for synergies arise among users, MSP emerged as a concept and transformed into a recognized practice gaining traction globally. In the European Union, MSP was moved forward with frameworks including the EU Maritime Spatial Planning Directive (MSPD) which defines MSP as "a process by which the relevant Member State's authorities analyze and organize human activities in marine areas to achieve ecological, economic and social objectives" (2014/89 - EUR-Lex). In Europe, the breakthrough of marine planning commenced with the EU integrated maritime policy (outlined in Green Book EC 2006 and the Blue Book EC 2007a) presented in the EU Action Plan (EC 2007b) which was followed by the "Roadmap for Maritime Spatial Planning: Achieving Common Principles in the EU" (European Commission, 2008). The European Union Directive on Maritime Spatial Planning of July 2014 required all EU member states to participate in MSP by 2021 (Zaucha and Gee, 2019). The European Directive (2014/89/EU) of the European Parliament and the Council established the framework for MSP which promotes the sustainability of maritime economies, areas, and resources. The directive constitutes a call for integrated planning wherein MSP "will contribute to the effective management of marine activities and the sustainable use of marine and coastal resources, by creating a framework for consistent, transparent, sustainable and evidence-based decision-making" (ibid). The directive furthermore calls for an integrated planning and management approach, to promote sustainable development which considers long-term implications such as due to climate change, and the need for the involvement of different levels of authorities and stakeholders (ibid). Beyond the EU, MSP has been ongoing in nations worldwide and, as of August 2018, about 70 countries/territories were preparing or had prepared about 140 MSP plans at the national, regional, or local levels. As such, marine planning and conservation efforts more broadly are global issues gaining momentum which are yet bound by differing legislations, international conventions, treaties, and laws including the

United Nations Convention on the Law of the Sea (UNCLOS), the Convention on Biological Diversity, the United Nations Agenda 21, and the FAO Code of Conduct for Fisheries.

The underlying principles of MSP have been defined to be **integrated** across economic sectors and governmental agencies; **strategic** and future-oriented, focused on the long-term; **participatory**, including stakeholders actively in the process; **adaptive**, capable of learning by doing; **ecosystem-based**[6], balancing ecological, economic, social, and cultural goals and objectives toward sustainable development and the maintenance of ecosystem services; **place-based** or area-based, i.e. integrated management of all human activities within a spatially demarcated area identified through ecological, socio-economic, and jurisdictional considerations (Ehler & Douvere, 2017). As such, MSP can be conceived as a planning process that seeks to approach the system, and all its uses, from both a spatial and temporal perspective which can support an ecosystem-based management (Young et al., 2007). This has been defined to focus on preserving and restoring ecosystems and secure the ecosystem services on which humans depend (European Commission, n.d.). An ecosystem-based approach principle refers to the management that considers a wider systems approach that seeks to achieve the integrity of the social and ecological system and operates beyond single-species management (Hoyt, 2011). Furthermore, EBM aims to include all relevant stakeholders in management discussions (ibid).

In view of evolving towards the promise of an ecosystem-based approach in MSP, a socio-ecological systems worldview contributes to seeing the relations between human and non-human systems (Zuercher et al., 2022). As established in the critiques by MSP scholars, planning has been primarily approached as a rational process and rarely engaged with issues such as distribution, inclusion in decision-making, and equity (Flannery et al., 2016). For planners, this study contributes to confronting issues of power and exploitation (ibid). That is, the practice of facilitating participatory processes[7] with stakeholders is an

[6]A complementary reference for the ecosystem-based approach is The Convention on Biological Diversity (2006) which defines an ecosystem as "a dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit."

[7] The engagement of stakeholders does not merely refer to hearing and consultation process but to active co-production of knowledge, which can take innovative formats such as the drawing of maps and producing knowledge about the ecosystem and its valuable and vulnerable areas (Jentoft & Knol, 2014)

important pillar to be enacted in the interest of justice and democracy (Jentoft & Knol, 2014). In the case of Norway, such processes included the collaborative mapping areas vulnerable and/or too valuable for petroleum activity both for the ecosystem itself as well as in their value for small-scale fisheries (ibid). Based on the social science approach, and supporting social sustainability on one hand, the research attended to the critiques and blind spots in MSP. As supported by Saunders et al. (2019), and crucial to the social sustainability pillar of MSP, the conceptual approach advanced the incorporation of both procedural and substantive aspects. As such, MSP work and environmental planning more broadly focus their approach along the typologies indicated by the ecosystem-based approach as set out by the MEA typologies (Saunders et al., 2019; Tafon et al., 2023). The procedures of MSP, according to MSP have been defined by (Ehler & Douvere, 2009) to include ten stages.[8]

Notably, in the history of planning and during the industrial age, the idea of planning was dominated by the pervasive idea of efficiency wherein consensus on issues was readily attained and operationalized. According to Rittel and Webber (1973) the guiding principles shifted and questions such as "whether what we are doing is the *right* thing to do" may guide the planning process (p.159, emphasis in original). Scholars Jentoft and Chuenpagdee (2009) allude to Rittel and Webber`s work, to discuss the issue of fisheries and coastal governance. They observe that in governance, wicked problems usually occur in a context of diversity where a one-size-fits-all approach is not suitable. The system to be governed is characterized by diversity which may be better approached through the inclusion of local knowledge. Jentoft and Knol (2014) found that MSP tends to operate at the national scale, emphasize the need for MSP to also move to the local level to better identify the particularities of communities and places. This in turn can aid in conflict resolution and mitigation at the local level. Furthermore, while MSP in theory sets a clear principle for stakeholder engagement given increasing users of a shared space, proves challenging and requires cooperation and negotiation interventions (ibid).

[8] i.e. 1. identifying need and establishing authority, 2. obtaining financial support 3. organizing the process through pre-planning , 4. organizing stakeholder participation, 5. defining and analyzing existing conditions, 6. defining and analyzing future conditions, 7. preparing and approving the spatial management plan, 8. implementing and enforcing the spatial management plan, 9. monitoring and evaluating performance, 10. adapting the marine spatial management process

MSP is about engaging with people to plan and indicates by its *planning* objective and underlying principles a future-oriented activity and opportunity to create a strategic and forward-looking management plan (Ehler & Douvere, 2009; Flannery et al., 2016; van Tatenhove, 2017). Exploring potential future measures with stakeholders can serve as a foresight exercise to address uncertainties, which is becoming increasingly valued in the study of marine socio-ecological systems and to improve marine management (Kelly et al., 2022). Marine planning is never a *finished* process but rather a commitment to continue planning into the future (Ehler, 2021). When acted upon promptly, decision-makers can select and execute management actions that are expected to lead to a desired future spatial vision for the marine area (Frazão Santos et al., 2020). Here, scenario planning can bring together different disciplines and values for policy making. Furthermore, for MSP to progress in the future, it ought to become a tool that is anticipatory and adaptive and where regular assessments feed into the quality assurance process. Yet the outcomes and processes of marine planning differ and do not necessarily result in one formal plan for the marine spaces (Frazão Santos et al., 2019, 2020).

2.2.1 Marine Protected Areas for Marine Mammals

The designation Marine Protected Areas (MPAs) is at times used as an umbrella term encompassing sanctuaries, special areas of conservation, national parks, and other similar terminology (WDC, 2023). Humans often create such areas to provide an official haven and refuge for species and their habitats which have become vulnerable to anthropogenic impacts. One of the legal mechanisms in the Mediterranean designed for the establishment of transboundary MPAs is the Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA) (Official Journal of the European Communities, 1999) which applies to the Mediterranean seabed, subsoil, and terrestrial coastal areas. The logic behind this proposal was to create areas that suit the conditions that come with highly migratory marine species (ibid). Upon reviewing the various conservation tools and areas specifically designated for marine mammals, it was found that the IMMA initiative, a joint undertaking by the IUCN Joint SSC-WCPA Marine Mammal Protected Areas Task Force, Tethys Research Institute and Whale and Dolphin Conservation (WDC), developed a conservation tool for mapping areas of importance for whales, dolphins, and other marine mammals (ibid). Considering

the challenges of large-scale MPAs for species conservation (Agardy, di Sciara, et al., 2011) identified shortcomings in MPAs including the need for a theoretical foundation, an effective protected size area in line with species dynamics, and the need to design MPAs with attention to scale and connectivity. The Second World Ocean Assessment Report, in its keynote points, highlights the role of marine mammals in marine ecosystems due to their biomass, consumption, and energy transfer, and contribution to economic and cultural dimensions in coastal communities (United Nations, 2021). The report also points to the diversification of economic activities including energy production and mining, emerging under the umbrella of blue growth agendas, which have created challenges for conservation in the form of noise, ship strikes, habitat modification, and disruptions on the behavioral dynamics of marine mammals.

Designing for MPAs is a challenging task especially when migratory marine mammals are in focus. This is in part due to their mobile life cycles which demand spatial considerations reflecting their behaviors, and networks informed by migratory behaviors while alike attend to anthropogenic impacts (Hooker et al., 2011). Regarding the multiple benefits of MPAs, studies have shown benefits both for humans and non-humans. Concerning human well-being, the inclusion of local values has proven beneficial and supported more just outcomes (Pascual et al., 2023). Thinking for the future and preparing research suitable to inform and direct future MPAs may become publicly preferred outputs which can be identified by assessing and understanding the values of local stakeholders early on, including before the establishment of an MPA. On the other hand, in their study of the effectiveness of MPA for marine mammals, Grau Tomás & García Sanabria (2022) found, based on their study of long-term population trends of marine mammal species, that the population of marine mammals has indicated population recovery, following the implementation on area-based protection measures. While uncertainty can often lead to ad hoc management behaviors, a precautionary approach can be created to respond with existing knowledge. Erich Hoyt (2011) explains that a marine protected area can be seen as an action in line with the precautionary approach, which is applied when despite uncertainty or incomplete scientific evidence, the decision-making process proceeds to act upon urgent decisions to protect ecosystems.

2.2.2 Advancing Approaches for Marine Planning

This section elaborates on the principles and critiques of marine planning to further place the contribution of this research in the evolution of MSP scholarship. Before the 20th century, activities in coastal areas were traditionally managed by a sector-by-sector approach, at a time when oceans principally served the purposes of fishing and navigating, which presently would not be adequate for managing the multiple new uses (Cicin-Sain & Knecht, 1998). Considering the objectives of MSP and tracing its evolution Zaucha & Gee (2019) provide a discussion of MSP`s growth from a concept to practice and from originally emphasizing conservation efforts to a multiple-objective approach. In turn, MSP has been guided to adopt an ecosystem-based approach as set out in Article 1(3) of the MSPD aimed at promoting the sustainable development and growth of the maritime and coastal economies and sustainable use of marine and coastal resources (2014/89 - EUR-Lex). Douvere (2008) traces the developments of the ecosystem approach and positions MSP as one of the most effective ways to achieve ecosystem-based management. Attending to the role of place- and/or area-based management which departs from a focus on a single species or sector, and rather views the management of all activities in the areas of concern (ibid). Considering further the *spatial* dimension of planning, such inquiry can shed insight into culturally significant sites (Pennino et al., 2021). Therefore, in place-based research approaches, value assessments and studies for environmental planning including marine planning, can highlight and extract values placed on specific areas, such as for high biodiversity value, which in response can be approached through protection and conservation measures. Yet discussions on the intersection of marine planning and conservation suggest that the relation is not straightforward and the link between MSP and MPAs lacks explicit recognition (Vaughan & Agardy, 2020). MPAs and MSP are both approaches that include area-based management tools which can support the sustainability of marine spaces and the ecosystem at large. Yet the efficacy of these tools remains often operational on a sectoral basis. Where an MPA does not exist, marine plans can contribute to the identification of areas for designation and MPAs represent one policy instrument and output of MSP and can be understood as nature-based solutions (ibid). While spatial protection measures set a valuable basis for operations, they cannot act as the silver bullet to mitigate all

anthropogenic impacts (Notarbartolo di Sciara et al., 2008). In their discussion of the complex relationship between MSP and MPAs, Trouillet and Jay (2021) discuss the potential of the two processes to evolve together and converge. According to Trouillet and Jay (2021), MSP provides a framework within which MPAs act as one potential management tool and MSP is a framework wherein MPA areas *should* be created, both from a strategic point of view (planning as a policy tool) and from a spatial point of view (planning as a technical tool), also echoed by Vaughan and Agardy (2020). Moreover, according to the IUCN guidelines, there are different categories, a continuum along which sustainable resource use is defined ranging from strict nature reserve (managed mainly for science), wilderness area (managed for wilderness protected), to protected landscape/seascape (managed for landscape/seascape conservation and recreation), and managed resource protected area (managed for sustainable use of ecosystems) (Dudley, 2013).

MPAs are one potential policy output and conservation tool within MSP yet may exist before MSP and function as a precursor, as is observed in one of the case studies of this research i.e. the Pelagos. Moreover, MPAs may act as a precautionary measure that demonstrates a proactive approach to decision-making in the face of uncertainty and knowledge gaps (Hoyt, 2011). Adaptive management has also been highlighted in the context of MPAs (Grau Tomás & García Sanabria, 2022). Regarding the outcome of MPAs, a mapping of habitats and uses can facilitate the identification of an area where a marine protected area may be suitable (Vaughan & Agardy, 2020). However, scholars such as (Young et al., 2007) note that MPAs should form a wider place-based management approach where the sectors of relevance in the area need to be part of the MSP process. As highlighted by Agardy, Di Sciara, et al. (2011) shortcomings in MPAs include a lack of sufficient stakeholder involvement especially in the planning process. Furthermore, as found by Maestro et al., (2022) in their study of MPA management models in Croatia, MPAs can lack adequate management and plans (including a deficiency in appropriate humans and financial resources) which has often resulted in paper parks.

2.2.3 Tourism and / in Marine Protected Areas

MPAs can contribute to the pull factor to areas and studies have examined to what extent sites such as natural parks or areas with a protected status can create value for the tourism sector. Nonetheless, economic arguments have dominated the discussion surrounding the relationship between tourism in natural settings and protected areas (Gross et al., 2023). The link between protected areas and tourism has been discussed in view of tourism taking place within protected areas wherein tourism has been advanced as an avenue and compatible with financing and achieving conservation objectives (Gowreesunkar et al., 2022). Scholarly inquiry has been well-established on the potential of national parks and other protected areas as sites for sustainable nature tourism (Frost & Hall, 2009) with more recent research evolving into discussions about the implications of neoliberal thinking in tourism and sustainability (Saarinen, 2018). Yet discourse has also pointed to the concerns that come with tourism impacts on spaces such as marine and coastal areas, including that an increase in tourism numbers may diminish the value and quality of the experience (Casimiro et al., 2023). As pointed out by Huijbens (2022), one of the key challenges is to maintain and balance that which creates the "allure" to destinations while also aligning with local and visitor expectations and visions. This is in line with debates at the intersection of environmental management and ethics, including about the impact of tourism on destinations which have been framed around designations such as tourism paradox, carrying capacity, limits, and footprint.

2.3 Interrelation of Values and Marine and Coastal Planning

A review of institutional and scholarly practices indicates an incremental interest in typologies capturing the concept of *values* to guide the respective act of assigning value by *valuation.* At the intersection of environmental management and planning, values guide objectives and visions and have become a common measurement and discussion tool for managing paths for socio-ecological systems, natural resource use, and anthropogenic pressures. The 2022 publication by The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), offers a state-of-the-art overview of the potential of values as both quantitative and qualitative indicators. The objectives are highlighted, on one hand for matters of justice, by recognizing the pluralities of actors and their values, and on the other hand, to channel this assessment

into the context of decision-making about the environment and nature (Frost & Hall, 2009). Various typologies and classifications of values exist further influenced by the societies defining these value categories, as becomes evident when looking at how indigenous and Western scholarship view human-nature dynamics.Therefore, worldviews - the frame of reference, *Weltanschauung,* or paradigm - influence that which is rendered value and the role assumed by humans in the wider system. The ecosystem services approach has a pragmatic value for policy and government decisions needing to place a value on services. Science for environmental policy has predominantly adopted the ecosystem services approach as developed by the Millennium Ecosystem Assessment, which in its conceptual framework defines ecosystem services as the benefits that humans obtain from ecosystems, and they are produced by interactions within the ecosystem which are ordered by of provisioning, regulating, supporting, and cultural services (MA, 2005). The MA recognizes the differentiation and potential for complementation between utilitarian ascribing quantitative value, and non-utilitarian values which attend to the value of ecological, socio-cultural, and intrinsic value. In policy, the ecosystem-services approach was created to give a monetary value to ecosystem services and has become commonly adopted (Kidd & Shaw, 2014). Thereby, a value is being set on the constituents and resources of the natural environment which are essential for human functions and needs. The study of values can further assist the evaluation of issues and aspects perceived by society as important, beneficial, or useful which in turn would contribute to a good quality of life (Díaz et al., 2018).

In their study on values in shaping sustainable development in Iceland, Knox-Hayes et al. (2021) emphasize the role of place in examining values to guide sustainable development. In their discussion of values, they furthermore refer to the work of Smith & Schwartz (1997) to identify five common conceptual features in most definitions of values: (1) values are a concept or belief; (2) values are desirable behaviors; (3) values transcend specific situations and contexts; (4) values are metrics of evaluating individual or group behaviors; and (5) values can be ranked in order (p.6). Moreover, individuals can have multiple values which can differ in their importance (Kesberg & Keller, 2018) and are both enduring and changing in their character (Rokeach, 1973). When it comes to the relationship between needs and values, Rokeach argues that values are that which distinguish humans from non-humans, or as he calls it “infrahuman” wherein “[v]alues

are the cognitive representations and transformations of needs, and man is the only animal capable to such representations and transformations." (p.20). From an anthropological perspective, in her discussion of the moral and ethical baseline for marine socio-ecological systems set in the context of three areas in Catalonia, Spain, Gómez Mestres (2022) advances a discussion on the ethical and moral baseline for marine-socio ecological values. She draws attention to the gap in scientific inquiry addressing a wider set of values beyond monetary value. She also discerns the challenges of defining values due to their differing notions within disciplines. Following her study, this research aligns with the notions common to social anthropology wherein the focus lies in the subjective and symbolic dimensions of value.

How does the discussion on the understanding of values take relevance in planning for the environment? According to Wallace et al. (2020), who identify both the significance and challenges of integrating value classifications in the planning and conservation of natural resources, the authors argue that future research requires the development of these classifications in applied contexts. Linking the discussion further to MSP literature, several gaps have been reported in valuation approaches particularly those related to cultural values which remain often discussed in terms of commodities (Gee et al., 2017).The *missing layers,* as captured by Pennino et al. (2021) refer to socio-cultural values and are highlighted to function in relation to the ecological and economic values which are often more dominantly recognized. This gap is argued to contradict the original objectives of MSP and the processes it ought to involve (Tadaki et al., 2017). MSP has also been discussed as a framework for better incorporating intangible forms of values such as cultural heritage such as in the case of Estonia (Lees et al., 2023).

This research follows up on this critique by expanding the engagement with a wider set of values and to consider how developments can be more just and sustainable. Flannery et al., (2020) urge for a broader and more critical understanding of the social and distributive impacts of MSP to an approach that emphasizes issues of equity, fair distribution of wealth, and inclusion in decision-making. They also position the role of social scientists in broadening the perspective of MSP through work on reflexivity and a deeper engagement with social processes such as power, justice, distributional impacts, and the potential for progressive forms of MSP. Values need to be treated more explicitly

in ocean governance and reflect the genuine desires of people (Charles, 2019). Involving actors in a meaningful way has been advanced as a key principle in MSP. Kraan et al., (2014), among other scholars, have identified the benefits of stakeholder inclusion such as higher social acceptability, stock-taking, and public buy-in. However, rather than dwelling on existing separations, it is advised to practitioners to focus on the outcomes of value assessments related to environmental quality, distributive justice, maintenance of plural value-articulating institutions, and commodification of the environment (Kallis et al., 2013).

Governance for coastal and marine issues that seek to be holistic and based on ecosystem-based management ought to reconsider and transform on a normative scale, including the values that guide their operations (Kelly et al., 2018). Yet, the human dimension has been scarcely integrated into the study and management of MPAs while studies (Cicin-Sain & Belfiore, 2005) have highlighted that the human dimension, including the objectives and attitudes (Charles & Wilson, 2009) are integral to MPA management. Previous studies on governance, such as on interactive governance theory, by Jentoft et al. (2007) formalize the governance system of MPA and move forward the stance that the system is made of two systems i.e. a governing system and a system-to-be-governed, the former of which is social including the institutions. From a governability perspective, these institutions representing the social dimension "comprise multiple, heterogeneous stakeholder groups with conflicting or compatible interests, values, ethics and hence, coping strategies" (cf. Gupta et al., 2003 in Jentoft et al. 2007, p.613). In the context of governance and values, Gómez Mestres (2022) points out that "values are highlighted as a driving force, and "legal tool" with which to suitably manage the environment" (p.895). Furthermore, as discussed in the context of interactive governance theory, and while not formally implemented in this research yet applicable also for the exploration of institutional arrangements in marine protected area contexts, one of the levels of governance belongs to the philosophical and normative dimension of governance systems (Johnson et al., 2019). This research follows the stance that "values shape social interactions and are key to the governance level" (ibid, p.47). In the context of a large-scale MPA, Christie et al. (2017) found the continued lack of attending to the human dimension and research on the social, political, cultural, and economic contexts shaping the management challenges of such areas. The investigation of institutional values is

premised on the stance that institutional innovation is needed to facilitate real-world change and therefore, institutional values need to be made explicit and brought forward. At an institutional scale, the mission, purpose, and vision form part of the *cone of values* (Avedisian & Bennet, 2010). Whether an MPA exists or not, scholars have recognized the need for collaboration for ecological, social, and economic benefits (Kark et al., 2015; Palacios-Abrantes et al., 2020). Kark et al., (2015) emphasize that conservation has yet to effectively be integrated, particularly when guided by the motivation to manage species migrating across politically constructed boundaries. In this setting, the collaboration will contribute to the effectiveness of measures and should be guided by shared interests and practices (ibid). Nonetheless, various challenges need to be overcome to effectivity enable ecosystem management in the context of multiple national boundaries. In the context of conservation, one pathway to counter or mitigate the impacts of fragmentation is by defining transboundary societal values and making explicit the welfare benefits for all parties and communities involved .

2.4 Interrelation of Ethics and Values in Marine Tourism

The discussion draws from scholarly work in an interdisciplinary and transversal manner, including from within environmental philosophy, ecotourism studies, human geography, psychology, and anthropology. Studies interested in the dynamics between tourists and marine megafauna are well established in disciplines including tourism studies and critical geography (Huijbens & Einarsson, 2018; Orams et al., 2014) and can be enriched by research gathered on tourist experiences by applying qualitative methods to study perspectives about nature-based and wildlife tourism. Studies as such have been scarce in Iceland and in Húsavík specifically. Among existing studies investigating ethical dimensions in tourism, scholars have researched the perceptions and attitudes of whale watching tourists towards whaling in Iceland (Bertulli et al., 2016), visitors' values of seal-watching in Northwestern Iceland (Chauvat et al., 2021), or employed an ecocentric perspective to human-dingo interactions in the case of Fraser Island, Australia (Burns et al., 2011). In the Arctic, nature-based tourism has become an economic driver in various small Arctic communities including in Finish Lapland, Norway`s Lofoten area, in Alaska (Sisneros-Kidd et al. 2019).

Studies have found that tourists engaged in ecotourism, wildlife watching, and nature are more likely to indicate values towards the biosphere (Perkins & Brown, 2012; Burns et al., 2011). Burns et al. (2011) discuss an ecocentric ethic to non-consumptive wildlife tourism management that takes place *in* nature, thereby drawing attention to the locus and context of wildlife encounters. The authors make a distinction regarding *where* wildlife tourism takes place and put forth that wildlife tourism *in* nature involves an experience based on the natural setting of wildlife, as is the case for whale watching activities in Skjálfandi Bay. Tourism focused on cetaceans moving freely in their habitat is furthermore perceived to be a beneficial type of tourism and may therefore be considered ecotourism (Higham, 2014). Whale watching can have the potential benefits usually associated with ecotourism which have been well recognized to include contributions to cetacean research, environmental education, and community engagement (De la Cruz-Modino & Cosentino, 2022). Finally, while not the focus of this study, considering narratives about the wider Arctic, often framed as experiencing Polar Amplification and rapid climate change at a rate nearly four times the global rate (Rantanen et al., 2022), another type of tourism emerging in the Arctic has been that of last-chance tourism (JUSTNORTH, n.d.). This type is often linked to specific mammals or environmental features including Polar bears and glaciers (D'Souza et al., 2023), which remains a subject of study to be further considered in the study of tourism motivations.

2.4.1 Typologies of Tourism - On Ecotourism

In relation to tourism, the theoretical approach focuses primarily on ecotourism yet recognizes the overlapping characteristics of nature-based and wildlife tourism, the latter of which includes whale watching and represents the main activity of interest in the case study locations. To begin, ecotourism serves as a starting point from which other types can be delineated and can be organized along three dimensions constituting nature-based, environmentally educated, and sustainably managed (Blamey, 2001). The United Nations World Tourism Organization (UNWTO) defines nature-based tourism through ecotourism where nature-based forms of tourism are defined by tourists' main motivation to observe and appreciate nature and the traditional culture of the visited area and which constitutes educational aspects (UNWTO, n.d.). Notably, the definition of ecotourism may imply an ethical dimension as its objectives include minimizing negative impacts on

the social and natural environment as well as supporting the sustenance of the natural area. The ethical overlay can be further interpreted along the emergence of ecotourism as an alternative form of tourism, at times contrasted with mass and over-tourism (Orams, 2001). Fennell (2007) further points to the necessity for ecotourism to be ecologically benign and operate at low levels of carrying capacities, both of which encourage attention to ecosystem limits.

Turning to another type of tourism, nature-based tourism is a form of tourism interested in the environment and the viewing of nature while wildlife tourism is a sub-set of nature-based tourism, also linked to ecotourism (Reynolds & Braithwaite, 2001). Nature-based tourism and its values may further be traced to the influences of Romanticism (Buckley & Coghlan, 2013; Meyer-Arendt, 2008) at a time when Europeans and Americans traveled to experience natural environments including exploration of the unknown, attraction to exotic wildlife, a love for the sea, and religion or spiritually motivated travels as industries and urban growth diminished the access to natural areas (Meyer-Arendt, 2008). Relationships between societies, sea- and landscapes have been captured by artists ranging from scenes of the Cote d'Azur by Pierre-Auguste Renoir, Joaquín Sorolla`s paintings of the Valencian coast, to the iconic image of the Wanderer above the Sea of Fog by Caspar David Friedrich. Nature-based tourism has the potential to guide positive impacts on the protection of the environment and is often discussed in the context of protected areas (Buckley & Coghlan, 2013). Wildlife tourism refers to the viewing of wild animals, which can take a consumptive or non-consumptive form (Newsome & Rodger, 2012).

2.4.2 A Spectrum of Environmental Dispositions for Tourism Management

Building on the previous discussion, this section furthers a theoretical conversation about the implications and intersection of tourism, ethics, and values. International tourism has been recognized as one of the drivers in the Anthropocene (Steffen et al., 2007) and managing tourism in marine environments is inherently complex and requires ethical guidance. Studies attending to ethical perspectives for tourism have proposed that management including wildlife tourism, based *in* nature, calls for policies that reflect an ecocentric value system (Chauvat et al., 2021). The potential of an ecocentric approach

to tourism challenges the anthropocentric worldview which permeates through most growth agendas and is often reproduced in nature-based / wildlife tourism through a continued human-nature/animal division in which wildlife is seen as something to be managed (Burns et al., 2011). Since ecotourism advocates for a more holistic understanding of the environment, and thus aligns with valuing its sustenance, this type of tourism and ecocentrism may reflect a symbiotic relationship. Moreover, examining the intersection of tourism and environmental sustainability, the role of tourists, their ethical outlooks, values, and motivations, become a topic of interest for research (Miller et al., 2015) thereby positioning the tourist as an active persona whose experience is personal and subjective (Huijbens, 2023). Reflecting on the diverse range of nature-based tourism, likewise, it was confirmed that individual tourists can indicate a diverse range of motivations, origins, and interests often extending beyond the immediate reason for which they can be found in a specific locality (Buckley & Coghlan, 2013).

2.4.3 The Potential of Ecocentrism for Sustainable and Just Practices

At the intersection of environmental philosophy and sustainable development, various ideological positions[9] and theories have been proposed to conceptualize the human-environmental relationships which include various ranges, shades, and nuances. Burns et al. (2011), in their discussion of the variety of ethical positions that have been conceptualized, provide an overview of key positions advanced on the other end of the anthropocentrism position including biocentrism and ecocentrism (Stenmark, 2002), technocentrism (Pepper, 1996), biospheric values (Stern & Dietz, 1994), and spirituality (Seligman, 1989). Considering the salience of this approach, more recently, the 2022 IPBES report outlines the multiple pathways to achieve sustainable and just futures among which ecocentrism is placed in the nature protection pathway.

Environmental ethics offer a basis for rethinking humanity`s place in the natural world (Sarkar, 2014) and humanity`s collective agency in contributing to more sustainable tourism. Moreover, human-environment relations are often framed as ecocentric and anthropocentric, which are here understood as a way of positioning our being with and relating to the world, and as worldviews that are expressed through knowledge systems

[9] For an overview, see also Acott et al. (1998)

(Pascual et al., 2023). Examining discussions about these ethical stances suggests a spectrum or continuum (Dyer & Gunnell, 1993) with blurred boundaries that extend beyond binary thinking. Both ecocentrism and anthropocentrism are understood as *motives* underlying environmental attitudes and can support environmental management or conservation objectives yet for differing motives. Within this spectrum, biocentrism and ecocentrism are positioned closer to each other but are differentiated by their focus. Biocentrism emphasizes biological components and the intrinsic and moral value of life, while ecocentrism is focused on biological wholes such as ecosystems which are rendered intrinsic value and moral standing.

Ecocentric profiles can be defined as those who view nature to have a spiritual and intrinsic value that is reflected in their experiences in nature and feelings about natural settings (Gagnon Thompson and Barton, 1994). Ecocentrics emphasize a connectedness between humans and other aspects of nature while anthropocentrism will focus on supporting the utilitarian dimension and are less likely to protect the environment (ibid). Gagnon Thompson and Barton (1994) theorize that ecocentrics are those who support environmental issues because they see nature as worth preserving regardless of the economic or lifestyle implications. Robyn Eckersley (1992) defines ecocentrism as "based on an ecologically informed philosophy of internal relations, according to which all organisms are not simply interrelated with their environment but also constituted by those very environmental interrelationships" (p.49). Ecocentrism is also characterized by its recognition of the intrinsic value of all forms of life regardless of their potential or actual use to humanity (Newsome et al., 2005), a view that encapsulates a nature-centered system of values (Fennell & Nowaczek, 2010). Thus, from an ontological perspective, from an ecocentric worldview, the world is perceived as "an intrinsically dynamic, interconnected web of relations in which there are no absolutely discrete entities and no absolute dividing lines between the living and the non-living, the animate and the inanimate or the human and the nonhuman" (Eckersley 1992, p.49). On the other end of the spectrum, anthropocentrism has been commonly posited as the cause of various environmental deteriorations (Xu & Fox, 2014; Zhang et al., 2020) further evidenced by the rise in scholarly critiques to overcome an exclusively anthropocentric and Western vision of growth. These have included the proposal towards alternative visions through

movements and an evolving lexicon such as degrowth in Europe, *Buen Vivir* in South America, or *Ubuntu* in Africa, and *kyosei* in Japan (Fuse in Kothari et al., 2019).

Newsome et al., (2005) conceptualize anthropocentrism as an unsustainable stance in which humans believe in the most significant species, and where the assumption reigns that resources are unlimited and can be gained through science and technology. Anthropocentrics would probably support that humans can control the environment and that technology can solve sustainability challenges (Kopnina et al., 2018; Berning et al., 2023). Referring to Hayward`s work, Kopnina (2018) adds to the debate on anthropocentrism by pointing to the fallacies of calling it the root of ecological crisis and urges scholars to attend to the aspects of anthropocentrism which can be critical, that is, the distinctions between anthropocentrism speciesism and human chauvinism (ibid). Another perspective for viewing anthropocentrism is that of seeing it as a motivator for environmental protection wherein humans realize that a preserved ecosystem acts as a life-support system (Hayward, 1997, p.60).

Insights into how people conceive nature can inform about whether they see themselves as part of separate from nature (Vining & Merrick, 2008). Recognizing diverse values for nature can support sustainability efforts and these values can be aligned with principles of justice for sustainability to take effect (Martin et al., 2022). In their introduction, Philippe Descola & Gisli Palsson put forth in 1996, and still relevant today, that one of the reasons to continue the pursuit of understanding the interactions and valuations between humans and other life is due to the "forefront of the public agenda, as the place of the environment of human affairs has become a major political and ethical concern of peoples and governments throughout most of the industrialised world." (p.12). From the time of the Stoics, the idea of justice was understood by the language of *sympatheia* wherein the idea moved beyond the legal conceptualization to one that recognized the interconnection of all life on Earth. While values can be understood as the fundamental beliefs and motives behind an action, ethics relates to the choice, the *rationale*, motivating behaviors. In scholarship, there have been recognitions that the concept of ecosystem services is deficient of the plurality of worldviews, values, and knowledge. Some scholars in the field of ecology and environmental philosophy such as Arne Naess and Aldo Leopold have sought to extend the value to the autotelic of nature.

Another approach is that of attending to indigenous knowledge systems and worldviews which often reflect a more ecosystem-based and wider view of the world wherein the human and non-human are inextricably connected, and which should be mobilized into policy decisions including in and for the Arctic (European Commission et al. 2018).

Finally, environmental ethics offer a pathway for rethinking humanity`s place in the natural world (Sarkar, 2014) and humanity's collective agency in contributing to more sustainable tourism. In scholarly attempts to define profiles, these can be broadly understood as two essential ones, that is, humans are either positioned at the center or superior to the world (Newsome & Rodger, 2012). Human-environment relations are often framed as ecocentric and anthropocentric, which are here understood as a way of positioning our being with and relating to the world, and as worldviews that are expressed through knowledge systems (Pascual et al., 2023). Nonetheless, environmental orientations or inclinations, as I would frame them, are one of the most disputed subjects of study in environmental philosophy since an individual can hold more than one orientation, and as evidenced in the ranges in profiles, shades, and nuances to be considered. Furthermore, the clear delineation of what defines the conclusive characterization of an absolute ecocentric or anthropocentric profile remains a challenge.

2.4.4 Shifting Valuations of Cetaceans

From Japan, the Faroe Islands, the United States, Spain, Denmark, to Iceland, cetaceans (from the Latin *cetus*, meaning whale, and ancient Greek κῆτος *(kêtos)* meaning large animal) (Etymonline, n.d.) have had a prominent role in the imagination of people and have likewise historically, and for some continue to, served as an essential resource. Encounters occurred from events including the stranding of whales to hunting at sea with whaling representing a lucrative activity for centuries. Wildlife resources remain an important food source for populations worldwide providing economic benefits including in Asia, North and South America, and Europe, among which various species are consumed including large and small cetaceans and pinnipeds (Robards & Reeves, 2011). The perception of cetaceans differs across societies and within worldviews and has been changing with variation in tandem with inter alia impacts of globalization, transportation, transformation in identity, the anthropomorphization of certain animals such as whales,

and likewise along with an emerging environmental ethic. Moreover, the perception of whales and other wildlife as charismatic megafauna or flagship species has been occurring with a change in use, such as fishing and hunting, to non-extractive uses in ecotourism signalling a transition "From sea monsters to charismatic megafauna" (Mazzoldi et al., 2019).

Whales continue to be vital to the economic development, food security, and cultural traditions of various communities. As constituents of the wider marine ecosystem, whales provide a variety of benefits including on-site and indirect benefits, such as in the form of tourism including whale watching (National Research Council, 2001). Considering the enduring role of marine mammals as sources of food and subsistence, whale meat continues to be consumed in Greenland, Canada, Norway, Japan, and Iceland. Historically, whales have been valued, among others, for their blubber, meat, and energy for heating. With the advances in science, both soft and hard anthropogenic activities, have been identified in the form of shipping, fishing, tourism, and oil and gas exploration. Furthermore, whales have become popular symbols of conservation and their role in the ecosystem has been approached from perspectives such as framing their role as ecosystem engineers.

Initiatives such as "Meet Us Don`t Eat Us" advertised as a collaborative project between International Fund for Animal Welfare (IFAW) and IceWhale have been formed to see commercial whale hunting ended in Iceland. The economic value of whales has been measured in sectors such as the whale watching industry (NOAA Fisheries, 2020) as well as the cultural ecosystem services (Malinauskaite et al., 2021). An activity core to this research is that of whale watching which is a commercial activity that has been uniquely positioned, from a touristic activity point of view, to potentially contribute to marine and species conservation efforts and alter human-marine and human-wildlife relations. Whale watching includes "a wide range of activities involving human interaction with various species of whales, dolphins, and porpoises, collectively known as cetaceans" (Garrod & Fennell 2004, p.335).

The type of cetacean we talk about changes the narrative - whether a Humpback whale (*Megaptera novaeangliae),* a Killer whale (*Orcinus orca)***,** or a Blue whale (*Balaenoptera*

musculus), each of them holds different meanings and historical links across cultures and some are perceived and represented as more charismatic than others. Various scientific arguments have emerged to emphasize the role of cetaceans in marine ecosystems, often highlighted for their essential role in carbon sequestration. The size of whales and their ecosystem engineering function are often enunciated (Roman et al., 2014) to emphasize their value for marine ecosystems and point to their role in climate change mitigation and carbon cycles (Pearson et al., 2023), or contribution to ecosystem services and human well-being (Cook et al., 2020). Institutions in the conservation sector (for instance, the WDC) have put forth arguments on the grounds of the sapience of cetaceans. Another case, for instance, is the Canadian government which in the context of captivity of wildlife such as whales and dolphins, has expressed that "Canadians do not want to see these sentient creatures behind glass for their entertainment, and over the past three years our government has worked to amend policies and legislation to end these practices in Canada" (Fisheries and Oceans Canada, 2021).

In the marine ecosystem, whales represent apex predators and have an important role in regulating the oceans. From an ecological perspective, Roman et al., (2014) discuss the role of whales, specifically, baleen whales (*Mysticeti*) and sperm whales (*Physeter macrocephalus*) as ecosystem engineers and argue that their role has been undervalued. Notably, the authors highlight the body mass and commercial history of some whale species over others. Considering the ecological value, whales are positioned as pivotal to nutrient fluxes, whale carcass contribution to carbon sequestration, and their overall value to productivity in the ecosystem (ibid). On the other hand, some scholars have set the discussion around whales in the context of the Anthropocene and the emerging ethic of its time. Some of the arguments have included that the Anthropocene has prompted for novel encounters and connections with non-human species, such as via whale watching wherein "the ethical frame of whale watching as an Anthropocene tourism has thus been changed by the re-imagination of the whale as an earthly companion species with characteristics of personhood, and with rights and territories that require humans to behave in a new way and engage in new relationships." (Kristoffersen et al. 2015, p.108). Such reflection leads to considerations about the operations of whale watching and the underpinning ethic. Orams et al. (2014) provocatively ask "What`s in it for the whales? " which leads to a discussion of the potential of education for cetacean-based tourism. Here,

operators become integral as the sustainability of whale watching activities is bound to how these define sustainability and integrate educational aspects in their activities. Finally, while whale watching has been supported as a non-extractive activity to interact with megafauna, there remain other challenges in regulating human activities including novel activities and intensified threats such as habitat degradation, climate change, and noise pollution (Mazzoldi et al., 2019).

2.5 Actor Networks in Transboundary Marine Protected Areas

Marine mammals lead migratory life-cycles, often following reproductive and foraging phases in suitable environmental conditions which are shaped by biotic and abiotic factors, extending beyond the spatial designations of MPAs and regulatory boundaries (Palacios-Abrantes et al., 2020). Thus, transboundary collaborations are to be integrated in marine planning objectives. Transboundary issues, including the search for solutions to socio-environmental challenges such as climate change, pollution, and marine mammal's lifecycle needs, occur across national boundaries and thus inherently call for collaborative approaches beyond national jurisdiction. MSP and MPAs were developed as a framework to offer an ecosystem-based approach to tackle transboundary challenges where this governance model and thinking may aid in collaborative governance approaches (Li & Jay, 2023). Indeed, a transboundary approach has been recognized as germane to responding to globalized and interconnected anthropogenic impacts. Transboundary governance can be understood as the multiple actors and institutions involved in shaping the decisions and activities across borders (ibid). As such, the transboundary pillar forms part of the mechanisms to cope with issues beyond national borders forming part of the MSP framework, and multiple lessons can be learned from European experiences in this area (Li & Jay, 2023; van Tatenhove, 2017). This principle is salient for issues including cetacean conservation and tourism. The imperative for transboundary planning and inter-jurisdictional mechanisms has been advocated by scholars who argue that transboundary planning is more imperative at sea given fluidity across borders (Jay et al., 2016). Transboundary MSP has been defined "a process in which at least two states, sharing a boundary on the Territorial Sea on the Exclusive Economic Zone, jointly manage a marine area" (Hassan et al., 2015, p.10). Therefore, international coordination across marine space is of high priority (von Negenborn, 2022).

Specifically, marine transboundary protected areas, exist in Mozambique, South Africa, and Swaziland as well as in the Mediterranean, and among these, three sites form part of the World Heritage List (i.e. the Kluane-Wrangell-St Elias-Glacier Bay-Tatshenshini-Alsek between Canada and the U.S., the High Coast-Kvarken Archipelago between Finland and Sweden, and the Wadden Sea between Germany and the Netherlands) (UNESCO World Heritage Centre, n.d.; Zbicz, 2011).

Transboundary agreements may be suitable for some areas and sectors depending on the variables at play, and cooperation across borders remains a complex process (Palacios-Abrantes et al., 2020). Based on empirical analysis, Palacios-Abrantes et al. refer to successful and challenging transboundary agreements in the context of fish species. In addition, climate change will likely continue to impact the migration patterns of wildlife posing additional conservation challenges. In Trouwborst`s (2012) study on transboundary wildlife conservation, the author provides a systematic overview of climate change impacts on species focusing on cetacean-related impacts which include habitat loss because of melting sea ice for bowhead whales (*Balaena mysticetus*), ocean acidification impacts on food webs for the North Pacific right whale (*Eubalaena japonica*), and changes in food distribution and abundance for humpback whales (*Megaptera novaeangliae*) (ibid, p.261). Moreover, MPAs are often spatially specific while these may act in a patch-like system and do not reflect ecosystem integrity. Considering the arguments for an ecosystem-based approach, at a higher scale, transboundary governance becomes salient for thinking about the wider ocean as an interconnected ecosystem. Establishing connectivity between networks is particularly significant for migratory species such as whales. For instance, corridors designed to meet the needs of specific life-cycle stages can be considered as migrating across superhighways or blue corridors (WWF, n.d.).

In the Arctic, transboundary collaboration is addressed, for instance, in the frame of circumpolar Arctic networks to manage MPAs and other area-based conservation measures (PAME, 2015). The Pan-Arctic governance structures such as the Arctic Council have been identified as crucial to the success of MSP (Edwards & Evans, 2017). Various links tie the Arctic states together ranging from shared transport and infrastructure routes, mutual interests in sustaining resources, and a commitment to

mitigate climate-related impact - for instance, Greenland and Iceland, in part due to their proximity, are interconnected through transport networks including air and maritime routes and proximity to provide services to each other private business operations including expeditions between the two countries and Norway (North Sailing, 2024).

3. Methodology and Methods

This thesis is informed by case-study-based methodology complemented with an ethnographic dimension common to social and anthropological studies. In terms of disciplinary approach, an inter- and multi-disciplinary approach supports a holistic analysis of human-environmental relations, drawing insights from fields including environmental ethics, psychology, human geography, anthropology, sociology, marine biology, and tourism studies. This research embarks on the quest in the empirical world for addressing real-life societal and ecological challenges and draws on lessons to inform and advance theoretical discussions. In view of contributing to frontier research on social issues in the marine realm, this study brings forward the experiences and interactions with marine spaces and marine life which are examined to contribute to an emerging ocean ontology that is system-oriented and holistic to embrace a changing understanding of the value of the ocean, including its intrinsic value (von Negenborn, 2022). Additionally, the research is shaped by the emerging marine approaches that integrate social and ecological knowledge and approaches, for instance socio-oceanography and marine social sciences, the latter of which belongs to the social sciences and which has been recognized as insufficiently integrated in marine research (McKinley et al., 2019; Popova et al., 2023).

Empirically informed by primary data collected in 2021 and 2022, the core research presented in *Section 5.1* and *Section 5.2* of this research are set in the Arctic, specifically in Northeastern Iceland. The case-study methodology was adopted following the association with case-study-specific research within JUSTNORTH which sought to maintain deep connections to core values while being particularistic, descriptive and heuristic (Stake, 1995). As such, the research methods follow a

qualitative approach including ethnographic observations in the form of field notes, video, and documenting daily life photographically (Images 1 and 2).

Image 2 Boats docked in the harbor, July 2022



Image 1 Overlooking Húsavík harbor, July 2022

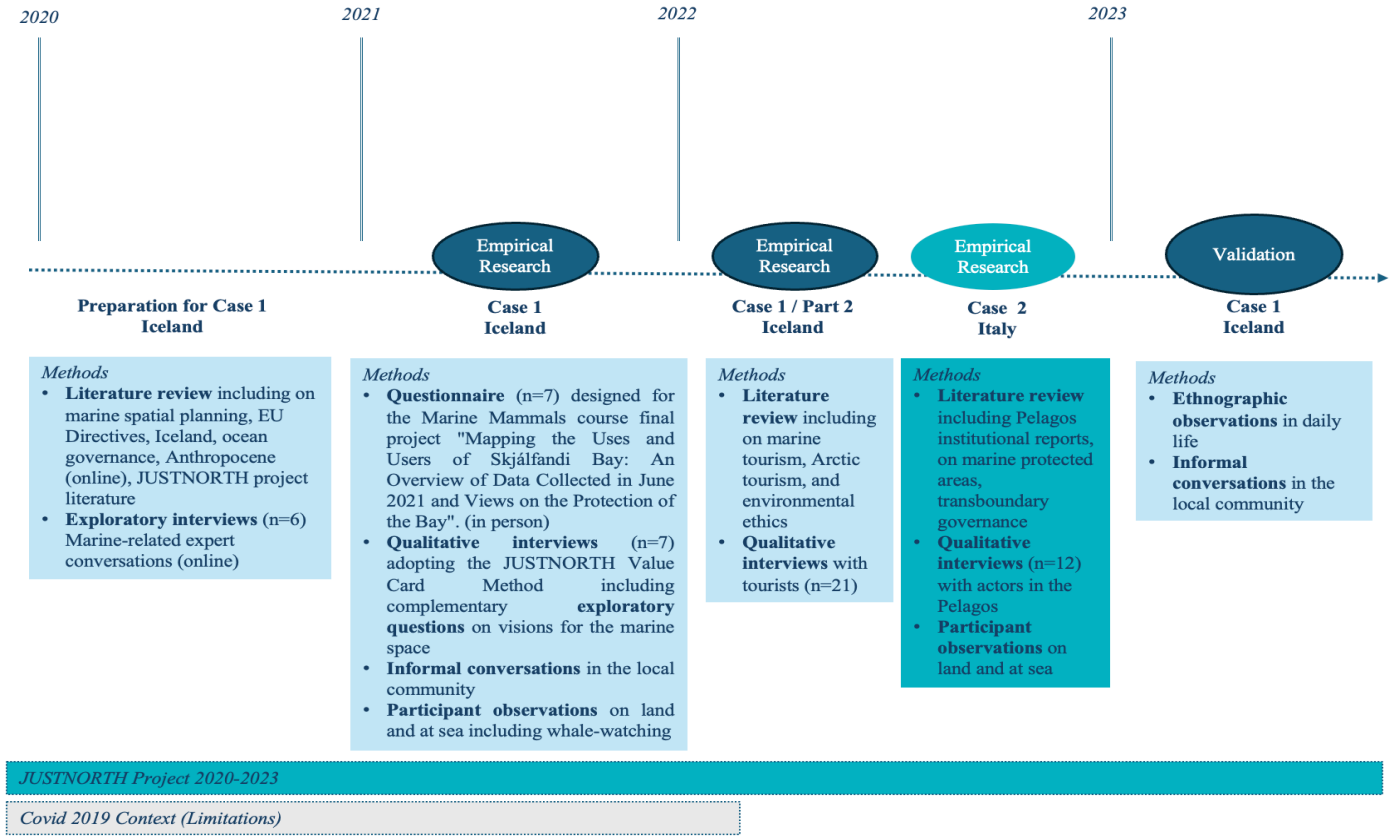


Source: Author

One of the cross-cutting methods (for an overview of methods see Figure 1) chosen for the research is semi-structured interviews which includes a preset of questions and likewise allows for data beyond the scope of the interview guide. Given the researcher had the chance to interview each interviewee once only (particularly for *Section 5.2* with tourists), the semi-structured interview was identified as appropriate. Furthermore, the interviews were intended to create a space for mutual learning and reflection. The researcher advanced towards these objectives by conducting research with and for stakeholders, to build a systems-oriented understanding of the problem which responds to the needs, priorities, and perspectives of stakeholders.

Figure 1

Timeline - Empirical Research and Methods



Note. The figure indicates the steps along the timeline October 2020-September 2023 which constituted research phases in both case study sites. As the figure shows, most of the research was invested into the Icelandic case with preparations and empirical research taking place in 2020, 2021, 2022, and 2023. Notably, the Icelandic case was addressed in the frame of the JUSTNORTH project. The Pelagos was researched while based in Italy during a research stay period of 3 months.

Observations and Informal Interviews

More than 100 additional informal conversations took place with scientists and locals across sectors which offered substantial contextual knowledge informing this study while simultaneously contributing to awareness-raising about the scientist`s research in the community. These informal conversations have long been recognized as a valid method adopted by anthropologists such as Margaret Mead, and while informal conversations remain less privileged, these are approached with a valid epistemological status (Swain & King, 2022) particularly in an explorative research phase.

Reflecting on the Explorer Figure in Research

Both, exposed for the first time in the community and being new to the Icelandic context which was primarily navigated independently, combined with the uncertainties surrounding the marine planning process and Covid-19-related circumstances, this research was initially guided by an exploratory approach. This means that the inquiry was approached through a conceptual lens common in descriptive or explanatory studies. While driven by theory, the research was thus open to the emergent linkages that could be empirically observed and immersing myself in the cultural context of the study site. Exploratory research also motivates the researcher to assume a role of humility and allows for the research process to unfold in the context of uncertainties and novelty within those studied. Positioning the role of social science research in this setting, scientists can perform the role of assessing the shifting values in societies and relation to the sea which ought to be included in research given that "just like governance itself, the shifting values and beliefs about the ocean are also a topic for research, as these will guide our management approaches of the future" (Zaucha & Gee 2019, p.4). In its practice, the research is inherently imbued with several values on the researcher`s part such as thinking for the long-term, recognizing process, embracing an approach which looks to the inside, and recognizing the growing impact across scales and actors. Finally, I entered this research with an academic and professional background in interdisciplinary research in human migration, international relations, intercultural communication, and Arctic science for policy experience. The marine realm represented a novel space for knowledge acquisition.

Furthermore, despite experiences across the Arctic including studies in Norway, the Icelandic context was a new geography. It was also the first time that I conducted research in a small and remote coastal community setting.

3.1 Local Values

Data elicited is based on the application of a mixed methods approach combining ethnographic observations, a questionnaire, and a value card pile sorting method, the last of which was adopted from a wider project-based methodology. Following the methods, the role of social science, and ethnographic practice common to anthropology, the study responds primarily to the procedural dimension of marine planning by delivering a qualitatively driven and site-specific study with people living (on a seasonal basis and permanently) in the town of Húsavík located in northeast Iceland. Marine Planning Law has as of yet not sufficiently addressed the procedural dimension and inclusion of stakeholders and their values and perspectives. The research is conducted *ex-ante* marine planning implementation which in turn contributes to informing future steps and in informing plausible futures for decision-makers. The research questions are geared towards generating scientific knowledge about value descriptions and discussing their relevance for marine planning. The findings are furthermore framed based on critiques and aspects to be considered in MSP, thereby presenting a case for a contextualized marine planning process.

The research was conducted in line with assignments in the frame of JUSTNORTH Case Study 8. The values were defined based on a literature review by JUSTNORTH coordinators and case study principal investigators defined by project objectives and their expertise and knowledge of the case study context. The list of values (see Table 1) stems from the internal project memorandum as elaborated by Wood-Donnelly and Sidortsov (2021) titled *JUSTNORTH Values for Dx.2 Value Indicators*[10]. These were adopted, contextualized, and amended to with descriptions by Case Study 8 Principal Investigators (see Table 2). Within the project, a list of overarching and related values were identified related to substantive and procedural values, as well as sustainable development and ecosystem services. The set of substantive values has been modeled

[10] Internal project file

on Maslow's hierarchy, where four categories of overarching values emerge related to self-actualization, esteem, love and belonging, safety, and physiological needs. These are the overarching values of security, belonging, respect, and (human) security. For the research analysis, these were followed to organize the findings yet limited to those which emerged with more importance in the data coding process. In addition to the predefined values, the values of *tourism* and *visions for the future* were identified by the researcher as prominent findings to be integrated given their context-specific relevance. Furthermore, due to the scope of this research, the theoretical approach to justice and SDGs have not been integrated. Finally, the wider project outcomes contain data gathered about 17 Arctic case studies which can be seen in a complementary manner to advise and inform policies across the Arctic region. The results have been integrated in policy briefs, economic briefs, scientific articles, and integrated reports (JUSTNORTH, n.d.).

Table 1

List of Values - JUSTNORTH

Substantive values	**Related Values**
Human Security	decent work, food security, resilience, and health
Belonging	inclusivity, solidarity, citizenship, and community
Respect	dignity, identity, heritage, and empowerment
Flourishing	capability, well-being, happiness, and achievement
Procedural Values	**Related values**
Freedom	autonomy, peace, liberty, and democracy
Equality	participation, tolerance, diversity, and gender
Rights	responsibility, justice, legality, and property
Transparency	reliability, honesty, integrity, and accountability
Values related to SDGs (beyond the inherent value of the SDG itself)	**Related values**
Sustainability	intergenerational equity, courage, innovation, benevolence
Conservation	responsible consumption, conformity, reflection, and efficiency
Environmental protection	responsible production, excellence, partnership, and prosperity.
Values related to ecosystem services	**Related values**
Provisioning	cleanliness, productivity, predictability, and power
Regulating	responsiveness, connectivity, stability, and harmony
Supporting	equity, flexibility, cooperation, and stimulation
Cultural	spirituality, beauty, pleasure, and wisdom

Note. The table indicates three overarching value groups and the related values for each. The overarching value categories.
Source: Author`s elaboration based on JUSTNORTH list of values (project file not online)

Table 2

List of Value Descriptions

N*	**Value Card**	**Corresponding Values from Literature**
1	Food	Food security, local food
2	Physical and Mental Health	Ocean, human health, mental health, proximity to water, water sports, marine activities
3	Beauty and Inspiration	Beauty, inspiration, Aesthetics
4	Recreational Activities	Flourishing, happiness, wellbeing
5	Economic Development	Decent work, economic sectors, marine activities, economy, job
6	Income Security	Individual economic stability
7	Conflict Free Space	Peace, tolerance, freedom, transparency
8	Women's Involvement	Gender equality, inclusiveness, opportunities for women, transparency, fairness
9	Inclusion in Decision- making	Transparency, participation, having an effect in political decisions.
10	Access to Marine Space and Resources	Access, participation
11	Family/Next generation	Intergenerational knowledge, sustainability, passing on ocean knowledge, elders, youth
12	Climate Action	Climate activism, conservation, carbon sequestration, waste reduction
13	Healthy,Diverse Ecosystem	Biodiversity, sustainability
14	Cultural Identity	Cultural belonging, place attachment, place-based identity, local mythology, cultural history
15	Support of Local Businesses	Decent work, economic sectors, marine activities, economy, job security, healthy community

Note. Values and their descriptions adopted as elaborated by the Principal Investigators of Case Study 8 based on their literature review and knowledge of the case study context.
Source: Author`s elaboration based on project file (not online)

Literature Review

Prior to empirical research, a literature review was conducted to scope for marine (spatial) planning literature about the EU and developments in the Arctic region. Literature in socio-ecological systems theory, project reports linked to Arctic social research, and scholarly articles addressing MSP in the Arctic, values, and valuation approaches were sourced. The literature review was not aimed at generating a systematic review but rather to trace the development of the MSP framework in academic and institutional publications, identifying trends and critiques about the framework, and synthesizing key narratives about MSP. Literature included academic journal articles, books, institutional publications and policy documents, websites, and news articles. The literature was sourced using academic and generic search engines including Google Scholar, Google, and Scopus combining the terms "marine planning", "marine spatial planning", "values/valuation", "Arctic", "Iceland", and "EU". Complementing the literature review phase and learning process, before data collection in the field, a series of informal interviews with scholars in the fields of marine planning and social research, were conducted via online meeting platforms in 2021. These were identified on a snowball basis through the MSP Research Network and based on authors of selected key literature. The purpose therein was to gain a first overview and insight into the challenges and complexities of MSP and to directly discuss with scholars some of the lessons to be particularly aware of including critiques and needs in the field. Furthermore, considering the context of the Covid-19 endemic, this approach enabled me to have conversations and contact with scholars in the field at distance. Finally, literature informing the methods section is further based on the JUSTNORTH project direction, particularly for the creation of value indicators and contextual knowledge about the case study.

Empirical Research

The research adopted methods common to anthropology, specifically by engaging in participant observations which combined field observations, living in-situ, and forming part of the everyday life in the community, cultural and social practices. The researcher simultaneously participated in a Marine Mammals Summer course at the University of Iceland Húsavík Research Center. The course facilitated staying on-

board whale watching and research vessels and studying research methods common to marine mammal research. As a result, over the course of a two-week stay in 2021, besides seven interviews directly informing the data generated on values, an additional seven questionnaires complemented with informal conversations, were conducted in fulfillment of the Marine Mammals course requirements.

Throughout my research stays in the community, I deliberately practiced transparency by openly sharing my interview guides including with staff of the Húsavík Research Center, the NGO Ocean Missions, as well as with local inhabitants to raise awareness about the research and objectives and likewise to gather informal feedback. Interestingly, it was observed that following data collection in Húsavík in 2021, a group of locals came together and organized a marine planning group. Following data collection, I decided to return to Iceland to close the research validation loop. It was carefully considered, given that I was made aware of research fatigue issues and concerns about research fly-in-fly-out behaviors, that my visit focused on the validation of existing data and to confirm developments informally. It was confirmed that my return generated significant insight into the validity of the probable (likely to happen) futures (Voros, 2017) that had been developed in the previous year and presented in Akureyri, Iceland at the Science Day of the 2nd Annual JUSTNORTH Conference (UNAK, 2022).

Interviewee Selection

Regarding the selection of participants in the studies, given the contextual relevance to develop a cross-sectoral stakeholder[11] approach, tourism companies were deemed crucial to incorporate given their position in contributing to the management and conservation of marine biodiversity, and their vicinity to marine mammal encounters. Interviewees were assigned in the frame of JUSTNORTH based on purposive sampling given the small community size and objectives of the research. Within the frame of the wider interviewing process, seven interviews were completed using the value pile sorting method. The interviewees belong to different stakeholder groups namely Scientific Research (2), Tourism Sector (4), and a local inhabitant in the

[11]Attending to the power dynamics suggested in using this terminology, see Reed et al. (2024)

education sector (1). An additional 7 different stakeholders were approached with a questionnaire. The latter were individuals exclusively working in the whale watching industry. As such, given the professional profile of interviewees, this study contributes particularly to the perspective of tourism and whale watching, as well as to the scientific perspective. Given their position, most interviewees draw direct benefits from the tourism industry specifically in the form of monetary value namely income. The interviewees who participated in the value card exercise constitute (n=4) working in the tourism sector, (n=2) in the scientific sector, and (n=1) in the local educational sector. The questionnaire was completed by individuals working in the tourism sector (primarily whale-watching).

Ethical and Methodological Considerations

The sending institution, Universitat Autònoma de Barcelona, approved this research as an exploratory work under the conditions that ethical guidelines are followed. Furthermore, an informed consent form and information letter for participating interviewees was drafted and approved by the JUSTNORTH partners in Iceland. As such, the study followed an ethical protocol established by the UAB and SAI and the data and privacy consent was agreed upon with partner institutions to ensure ethical conduct. In its procedure, before the interview, each interviewee was introduced to the research and presented with an informed consent form to facilitate the audio recording of interviews and inform them about their rights. The extracts included in the findings were carefully revised to anonymize information and appear in this text randomly sorted from I1 to I7. In terms of considerations, the researcher conducted the study in the context of the limitations established by the Covid-19 endemic while likewise being a newcomer in the community and culture, which together framed to some extent the freedoms and proximity needed for social science research dynamics.

Questionnaire

The second component of research data is based on a questionnaire developed in the context of the Marine Mammals Course called “Mapping the Uses and Users of Skjálfandi Bay: An Overview of Data Collected in June 2021 and Views on the Protection of the Bay” which contained questions to begin exploring stakeholder’s views on challenges for the marine space to inform and define these areas through their

perspectives. Key areas of interest were to generate first insights about interviewees` views on marine protection and areas and regulatory issues of concern. The questionnaire was developed during a 9-day intensive Marine Mammals course. Within the course, one day was dedicated to data collection for which a questionnaire was identified as the most effective method to elicit data. The results are based on seven completed questionnaires with staff members of two whale watching companies that were operating principally in 2021, namely North Sailing and Gentle Giants. The questionnaire was geared towards and distributed to captains and whale watching guides. In its structure, the questionnaire included ranking questions, questions along the criteria, yes/no, and interest in more information, as well as spaces for additional comments. In parallel to questions about values, questions regarding marine planning were asked which elicited answers about the possible trajectories and visions for the bay.

1) Should we have protection measures for marine mammals in Skjálfandi Bay? (yes/no)
2) How important are the following for protection: Rank from 0-5 (5 being most important: responsible whale watching (for instance: attention to marine mammal behaviors, caution while navigating, other) / a mandatory code of conduct for whale-watching / transition to more environmental vessels
3) Is there a specific area in the bay where you would encourage more protection? Please indicate on the map or name a place/area
4) How important is the regulation of other activities, for instance, such as: Cruise and cargo shipping / Commercial fishing / Kelp harvesting / On-land activities
5) Would you say that Húsavík (as an important whale watching place) and Skjálfandi Bay could advance as a place showcasing good protection practices?
6) Is there something you know and would like to share about protecting the bay?

Data Treatment

Questionnaire

Data was manually registered for each questionnaire question constituting a ranking factor and calculated along spreadsheets using Microsoft Excel. The remaining questions generating data in the form of comments, were documented directly in a reserved questionnaire space. Conversations complementing the questionnaire were not audio-recorded. The questionnaire proved efficient given the time constraints for whale watching guides and captains during the peak summer season. While some

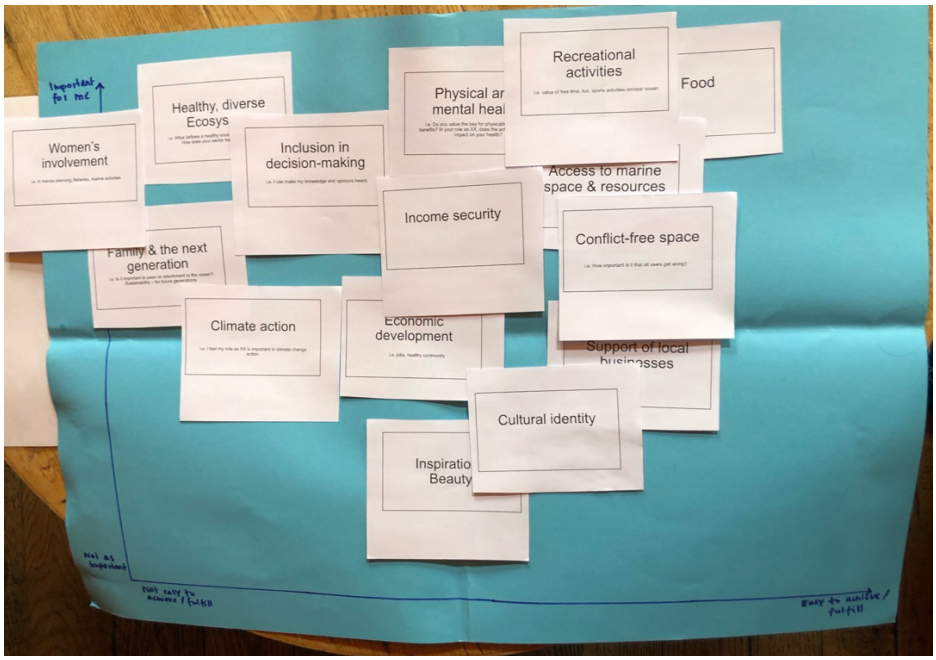
language barriers with Icelandic captains existed, translations from English to Icelandic during the completion of questionnaires were offered by a bilingual whale watching guide and a scientist.

Value Card Exercise Standard Procedure

The standard procedure for the interviewing process adopted by three JUSTNORTH field researchers commenced with establishing contact with the interviewee of interest based on a pre-defined list established by the JUSTNORTH Case Study 8 principal investigators. Interviewees were mainly contacted directly given the small community setting. During the interviews, the interviewees were given physical cards with 15 values printed on them (see Image 3).

Image 3

Example of Value Card Piles



Source: Author`s Image

The structured interviews followed a pile sorting method (Bernard, 2006) which required interviewees to rank a list of values on a template marked with two axes, i.e., on the horizontal “Not easy to achieve/fulfill” to “Easy to achieve/fulfill” and on the vertical axes “Important for me” to “Not as Important”. While interviewees sorted the value cards, the interviewer asked for more explanations as to how they would define

the value, thereby giving indicators and the rationale for their choices. Further open-ended questions about the awareness of local marine planning and visions for the future offered context for discussion. Following the exercise, I asked interviewees few open-ended questions, which were limited to those who were willing to continue the conversation. However, responses were limited which indicated that there remained a lack of awareness and knowledge about the legislation and process in Húsavík. The answers informed the findings on visions for the future (see *Section 5.1.5*).

Data Processing - Value Card Piles

Following data collection, interview recordings were transcribed verbatim and reviewed using a standardized anonymizing template. The data was organized, and supporting quotes were extracted in line with the descriptions that followed each value card. Language was reviewed to eliminate repetitions and filler words) and corrected grammar for comprehension. Data collected and transcribed interviews were thereafter organized in a Codebook (see Table 4) using Microsoft Excel. Following the Codebook guidelines set out by JUSTNORTH, the Microsoft Excel columns, relevant to this study, consisted of the anonymized subject ID, the overarching value group (substantive, procedural, SDGs related, Ecosystem services related), the overarching value (human security, belonging, respect, flourishing), the related value (decent work, food security, resilience, and health). The value indicator column indicates for each value the value description (for instance "Food Security: should produce more locally"). The first step was to synthesize the data generated for each value, highlighting the clearest indicators that emerged for the value. Data was sorted and labeled in line with value cards. In this research, for matters of logistics and considering the quantity of data, the importance of a value was evaluated and will be discussed in the findings based on the verbal expression of such and based on the description offered by interviewees. Given the value card pile exercise along a physical axis, the identification of a value of higher importance was expressed verbatim and thus facilitated an assessment of value positions. Finally, for each value, quotes were identified, and summaries established which guided the creation of arguments presented in the discussion section. Within a Microsoft Excel Codebook, the 15 values were grouped along substantive, ecosystem-services-related, and procedural values (see Tables 3 & 4).

Table 3

Value Categories JUSTNORTH

Substantive (what is valued)
o Food Security o Physical and o Mental Health o Income Security o Cultural Identity o Healthy Diverse Ecosystem
Ecosystem-services (perceptions of values in ecosystem-services)
o Beauty & o Inspiration o Recreational o Activities o Economic Development
Procedural (how what is valued is determined)
o Conflict Free Space o Women`s Involvement o Inclusion in decision making o Access to marine space o Family and next generation o Climate action o Support of local businesses

Note. The table reflects the organization of values within the overarching group namely substantive, ecosystem-services, procedural) which were adopted for Case Study 8 and in the value card exercise informing one part of *Section 5.1* findings.

Source: Author`s elaboration based on internal project file not available online)

Table 4

Extract of Data Coding

Value Indicator (Value Description)	Overarching Value Group (dropdown)	Overarching Value (dropdown)	Related Value (dropdown)
Food Security: considering only the bay, can access fish and survive	Substantive	Human Security	Food Security
Beauty & Inspiration: mountains	Ecosystem	Cultural	Beauty
Beauty & Inspiration: preserved landscape	Ecosystem	Cultural	Beauty
Recreational Activities: access for walking, boats, swimming	Ecosystem	Cultural	Pleasure
Recreational Activities: attending to conflicts in rock climbing and whale-watching	Ecosystem	Cultural	Pleasure
Economic Developments: supports small and diverse businesses	Ecosystem	Provisioning	Pleasure
Income Security: consequences of pandemic	Substantive	Human Security	Productivity
Income Security: pandemic and tourist origins	Substantive	Human Security	Decent Work
Conflict Free Space: easy to achieve in the bay	Procedural	Freedom	Decent Work
Conflict Free Space: conflict always exists	Procedural	Freedom	Peace
Conflict Free Space: conflict with whale watching boats	Procedural	Freedom	Peace
Women`s Involvement: traditions in thinking about who works in fisheries persists	Procedural	Equality	Peace
Women`s Involvement: fisheries dominated by men	Procedural	Equality	Gender
Women`s Involvement: women`s importance in whale watching	Procedural	Equality	Gender
Women`s Involvement: physically demanding fisheries industry	Procedural	Equality	Gender
Inclusion in Decision-Making: opinion and voice can be heard in whale watching tours	Procedural	Rights	Justice
Inclusion in Decision-Making: more inclusion needed in decisions	Procedural	Rights	Justice
Inclusion in Decision-Making: important to be include, size of town population permits this	Procedural	Rights	Justice
Inclusion in Decision-Making: not many decisions have been made	Procedural	Rights	Justice
Access to Marine Space and Resources: freedom to take boat	Procedural	Rights	Justice
Family and Next Generation: educate how to respect the ocean	Procedural	Rights	Justice
Family and Next Generation: healthy for people to know about the ocean	Procedural	Rights	Justice
Climate Action: measures delayed	Procedural	Rights	Responsibility
Climate Action: insufficient and require action	Procedural	Rights	Responsibility
Climate Action: whale watching guide educate tourists	Procedural	Rights	Responsibility
Healthy, Diverse Ecosystems: lacking knowledge about ecosystem impacts	Substantive	Human Security	Resilience
Healthy, Diverse Ecosystems: keeping whales in the future	Substantive	Human Security	Resilience
Healthy, Diverse Ecosystems: multiple threats	Substantive	Human Security	Resilience
Healthy Diverse Ecosystems: priority to keep bay healthy, interconnectedness	Substantive	Human Security	Resilience
Cultural Identity: town represents second home to foreigners	Substantive	Respect	Identity
Cultural Identity: not important	Substantive	Respect	Identity

Note. The data coding process followed the template of JUSTNORTH Case Study 8

Source: Author`s elaboration based on Case Study 8 inter-researcher approach and template

The interviewees belong to different stakeholder groups namely those employed in the scientific sector (n=2), in the tourism sector specifically whale watching (n=4), and other inhabitants in the local community (n=1). Given the focus on the sustainability of economic activities in the case study, the interviewee's background is understood through their role in economic sectors, respectively, belonging to Tourism, Science, and Education.

In its social science practice and participatory approach, this study facilitated and contributed to filling the gap of stakeholder engagement in marine planning in Northeast Iceland. However, the marine planning process in Iceland was not entirely transparent nor is all data available in English which posed some challenges for the study. The research is most relevant in the context of wider JUSTNORTH deliverables and case studies across the Arctic region which together shed insight on the trajectories of development in Arctic countries. Nonetheless, despite the efforts to offer an integrated view on values, this research too is one where reductionism had to be performed and offers mainly the perspective of the tourism and scientific sector yet the research has sought to contribute to responding to the critiques in MSP and in establishing a first knowledge base.

3.2 Tourist`s Values

The study combined qualitative semi-structured interviews and *in situ* field research to explore the plurality of perspectives, knowledge, and ethical viewpoints of tourists. Data collected with local stakeholders is complementary to shed insight into envisioned limits and challenges for the tourism sector which were respectively into observations, needs, and challenges and is presented as a summary. The discussion draws from scholarly work in an interdisciplinary manner, including environmental philosophy, human-environment geography, environmental sociology, psychology, and anthropology. Studies interested in the dynamics between tourists and marine megafauna are well established in multiple disciplines (Higham, 2014; Huijbens & Einarsson, 2018; M. Orams et al., 2014) and can be enriched by research gathered on tourist experiences applying qualitative methods and studying perspectives about nature-based and wildlife tourism. Studies as such have been underrepresented in

Iceland and Húsavík specifically. The primary source of data is based on 21 qualitative semi-structured interviews which took place in-situ during the summer of 2022 in Húsavík in Northeast Iceland providing frontier insights through qualitative research on tourism. The case study methodology focuses on a specific location and its challenges, maintaining a strong connection to core values and intentions suiting the particularistic, descriptive, and heuristic approach (Stake, 1995). The research is enriched by insights gathered through fieldwork and participant observations, informal conversations, and data obtained from secondary sources. The focus on the experiences of tourists, especially through a qualitative social sciences approach which investigated the analysis of ecocentric-anthropocentric positions, represents a gap in tourism studies although tourists have been recognized to be at the essence of conceptualizing tourism experiences and informing management (Olafsdottir, 2013). Qualitative research can further contribute to the storytelling of encounters with surroundings, including marine life, and widen perspectives (Huijbens & Einarsson, 2018). Interviews with locals linked to the tourism sector assisted the research in developing a contextual understanding of present challenges in the sector and shed insight into the envisioned limits, and opportunities. Based on previous fieldwork in 2021, the researcher directly contacted key stakeholders to guide open-ended conversations about the tourism sector with a focus on envisioned limits and challenges.

Data Gathering

In July 2022, I arrived in Húsavík to interview tourists guided by the observation that most tourists are attracted by whale watching. In the every day of empirical research, while living in the Húsavík campsite, I would regularly meet interviewees in the harbor. The interviewees were selected both based on an opportunistic and criterion-based approach capitalizing on my stay in the harbor and campsite. Interviews took place between July 7 and July 19. In the harbor, the return times of whale watching tours were noted to plan for encountering tourists by the whale watching boats. Interviewees were asked to first read through all statements and second, select seven statements. Following the exercise, interviewees were asked to comment on their selections thereby offering a rationale, the why, to their selections, as highlighted in the study by Rülke et al. (2020).

In terms of representation, I actively sought to diversify the pool of interviewees by approaching and searching for different profile. I did so for instance by alternating the docks on which I waited for tourists returning from whale watching tours, by seeking customers choosing different types of whale watching tours offered (on a classic schooner or RIB boat), by searching for individuals of different age groups, genders, and by actively listening to the different languages spoken before approaching individuals.

Considering the approach to interviewees, I introduced myself as a student working on a doctoral research project. Interviewees were asked if they would be willing to sit down with me and respond to questions related to their visit and whale watching experience. After the first round of encounters, it was found that the reasons for their visit varied and were often hybrid in character. Upon identifying the diversity of tourists in Húsavík, I further included tourists who were sharing the same campsite as myself (see Image 4) some of which included whale watching visitors.

Image 4

Research Base and Campsite, July 2022



Source: Author`s Image

Data Processing

Interviews collected total to the amount of (n=21) with tourists (see Table 5) and were transcribed verbatim.

Table 5

Interviewee Profiles

Age Groups (following Eurostat guidelines) / Gender		**Occupations**	**Nationalities**
Age Group	N*interviewees	Civil Service 4, Health 4, Service Sector 4, Education 3, Technology 2, Innovation 1, Engineering 1, Student 1, Unemployed 1	German 5, American 3, Spanish 2, Italian 2, Dutch 2, British 1, Danish 1, Belarussian 1, Chinese-Swiss 1, Australian 1, Belgian 1, Polish 1
15-24	2		
25-49	14		
50-64	4		
65-79	1		
Total	**21**		
Gender	57 % female; 43 % male		

This was followed by the step of transferring and clustering data collected using keywords and excerpts in line with the question sequence of the interview guide. The data collected was coded deductively and limited within the scope of the questions in the interview guide, i.e. for each question posed, the data was correspondingly coded. The data was organized along spreadsheets using Microsoft Excel into the following sub-categories: motivation, been to Iceland / how did you know, transportation and camping, accompanied by, last vacation, living in Iceland, arctic climate change, knowledge acquisition, whales, whale watching, ecocentric, nature, interest, age and gender, occupation. At the Arctic scale, contributing to informing about tourists' perceptions of the Arctic and motivations to visit, one area within the interviews prompted tourists to reflect on the Arctic`s position in climate change discussions to explore this emerging type of tourism and their awareness of environmental issues. The question introducing the thematic area was "Did you know/is it something that

crosses your mind that the Arctic is ...”? served as a transition question to the thematic area on climate change. Upon registration of data collected, based on the findings, several questions were found to generate identical or similar responses. The second step of the data collected revision revealed that several questions can be merged given that they produced content repetition which were merged for conceptual and analytical clarity. The interviews were numbered for reference and anonymized, therefore appearing in the manuscript in the format of Interviewee (1) = I1. The transcripts were edited in grammar and language for comprehension. Gender-neutral pronouns are used for all interviewee indications in the extracts.

Ethical and Methodological Considerations

In line with ethical guidelines, all interviewees were introduced formally to the research and asked to sign an informed consent form. The procedure involved approvals at the Autonomous University of Barcelona through the Commission on Ethics in Animal and Human Experimentation (CEEAH) and within the JUSTNORTH Case Study 8 leadership (see Appendices 1 and 5), completing each of their respective procedures prior to empirical research. The finalized forms were then distributed one-by-one to interviewees prior to the interview. The form described to interviewees the objectives of my research, their rights to terminate or request to halt the interview at any point, and to inform them that their data and contribution would be anonymized. Specifically, they involved consenting to being interviewed, to being recorded for research purposes, to consent on being quoted literally, and that the participation is voluntary.

Interview Guide Design

The questions posed to tourists were conceived in line with the theoretical concepts, the researcher`s background knowledge gained during previous fieldwork in Húsavík (2021), and exploratory interests about contextual topics (i.e., motivations, transport choices, climate change, views on whale watching management in Skjálfandi Bay, defining nature). The 21 vis-à-vis guided interviews amounted to an average length of 30 minutes. The inquiry into motivations was deemed necessary to confront the assumption that tourists were in Húsavík for whale watching only and to generate a wider image of linked circumstances and interests. The interview guide consisted of

both open and closed questions and was tested before field work with various individuals. The first five questions of the interview guide served an exploratory purpose to provide an overview of the motivations to visit Northern Iceland, transport choices, and additional profile data. Within the interview guide, a statement selection exercise was added. I sought to ease the conceptual challenges by asking them for definitions of nature. The interviews took place primarily in English while facilitating interviewees to express themselves also in German and Italian.

The list of statements (see Table 6) was elaborated based on multiple sources. First, the statements were developed drawing on previous efforts to measure ethical dimensions. Benchmark references include the scale developed by Gagnon Thompson & Barton (1994) and the study of Amérigo et al. (2007).[12] Notably, some statements are formulated with an integrated rationale or motive as reflected in the scale of Thompson and Barton. The two studies have differing positions on the scale. While Gagnon Thomson and Barton ordered their scale by focusing on the ecocentrism-anthropocentrism binary, Amérigo et. al adopted a scale with anthropocentric, biospheric, and egocentric positions.[13]

However, the goal of this study was not to delineate and claim a strict measurement of ecocentrism and/or anthropocentrism. Rather, the study was designed as an exercise intended to explore how individuals conceive their position and place in relation to the environment and experience within the context of posed questions. Specifically, regarding the set of statements, these included statements involving language on *limits* linked to ecosystem capacities and tourism to further gain insight into perspectives on environmental issues. In this process, interviewees were asked to first read through all statements and secondly, asked to select seven statements. Following the exercise, interviewees were asked to comment on their selections thereby offering a rationale, the why, to their selections, as highlighted in the study by Rülke et al. (2020). The

[12] The three-dimensional scale by (Amérigo et al., 2007) "constitutes an anthropocentric dimension based on the instrumental value of the environment for human beings, a biospheric dimension that values the environment for its own sake, and an egobiocentric dimension that values the human being within nature as a whole." (p.97).

[13] Amérigo et. al (2007) propose that statements belonging to the ecocentric dimension may better be conceptualized as belonging to an egoistic dimension on the basis that the `Self` is the beneficiary of the benefits of nature, thus developing a new category called Egobiocentric. Statements such as "Nature is valuable for its own sake" as originally formulated by Gagnon Thompson & Barton (1994) have been explained to constitute both a psychosocial (environment valued as contributing to well-being) and a biospheric dimension (environment valued intrinsically). Here Amerigo et al. added an egobiocentric and biospheric dimension to the scale.

questions further constituted a set of contextual questions which were based on the interest in wider contextual issues of relevance in the case study site. The questions were conceived to gather insight about broader thematic topics including motivations to visiting Iceland, about the journey and transport, about perceptions of the environment & climate, and defining Nature.

Table 6

List of Statements, Descriptions and Benchmark Sources

Statements	***Descriptions and Benchmark Sources***
Despite intelligence and technological innovation, humans are subject to the laws of nature *ECO*	This statement recognizes that regardless of advancements made by humans including through technological innovations, there are fundamental laws that govern nature of which humans are part of. It also recognizes human limits, thus considering that human innovation and development must attend to the limits for sustainability. Given the essential focus on interconnectedness, this statement belongs more to **ecocentrism**.
Huge environmental problems are faced due to present consumption patterns of limited natural resources *ECO*	This statement recognizes and urges for awareness about current consumption patterns. It suggests that present consumption is not sustainable. Given the focus on wider environmental sustainability, this statement belongs more to **ecocentrism**.
Nature is valuable just for itself (for nature`s's sake) *ECO*	This statement focuses on the intrinsic value of nature and emphasizes value beyond human needs. Ecocentrism recognizes the intrinsic value of ecosystems. This statement belong more to **ecocentrism**. *In literature: Ecocentrism according to Gagnon Thompson and Barton (1994); Biospherism according to Amérigo (2007)*
Humans are as much part of the ecosystem as other animals *ECO*	This statement suggests that humans are part of the wider ecosystem and are constituents, thus supporting a holistic vision of the ecosystem that belongs to **ecocentrism**.

	In literature: Ecocentrism according to Gagnon Thompson and Barton (1994; Biospherism according to Amérigo (2007)
I need time in nature to be happy *ECO & ANTHRO*	This statement may belong to both **ecocentrism and anthropocentrism.** It suggests a positive relationship with nature and recognizes human connectedness to nature, including well-being. Yet it may also be interpreted as nature offering a service in a more instrumental sense. *In literature: Ecocentrism according to Gagnon Thompson & Barton (1994); Egobiocentrism according to Amérigo (2007) et al.*
There should be a limit on how many people can go whale watching in Skjálfandi Bay if it means a lower impact on and preservation of the ecosystem *ECO*	This statement is contextually relevant giving attention to Skjálfandi Bay where whale watching activities take place. The statement is more **ecocentric** as it focuses on the preservation of the ecosystem. It recognizes that limits may be needed on human activities to mantain the wider ecosystem.
I am willing to sacrifice commodities of comfort and consumption to support the continuity and well-being of human and non-human life *ECO*	This statement implies that humans are willing to make sacrifices given sustain the continuity of the interconnected ecosystem including both human and non-human life. This statement belongs more to **ecocentrism.**
There should be a limit on how many people can come to Iceland if it means a lower impact on and preservation of the ecosystem *ECO*	This statement is more aligned with **ecocentrism** as it prioritizes the preservation of the ecosystem over human activities (including tourism).
Through science, humans have the capacity to control natural processes to improve the health of marine spaces *ECO & ANTHRO*	In this statement, science is framed as a solution and pathway to control natural processes. The statement may be both **ecocentric and anthropocentric.** However, the statement is **ecocentric** in its focus on the health of the marine space.

I am concerned about the health of the ocean because there will not be enough resources to continue growth projects *ANTHRO*	The first part of the statement may belong to **ecocentrism** considering that the health of the ocean is important for the sustainability of the wider ecosystem. The statement also has an **anthropocentric** dimension given the motivation to continue growth projects which are defined by human interests.
Technological innovation must be the main resource to face the climate crisis *ANTHRO*	This statement focuses on technological innovation as a solution, which are developed by humans. It may be more aligned with **anthropocentrism**.
Whale watching is an exciting and fun activity. Being very close to the marine mammals is one of the best experiences I ever had *ANTHRO*	This statement has a more **anthropocentric dimension** yet also recognizes that wildlife tourism, such as whale watching, is an activity of entertainment and can often be a peak emotional experience for visitors (Newsome et al., 2005). The statement can be both **ecocentric and anthropocentric**.
One of the most important factors about Skjálfandi Bay is to continue whale watching activities *ANTHRO*	This statement is interested in the perception of individuals and relates to the experience of human enjoyment, thus aligning with **anthropocentrism.**
Nature is only as valuable as the services and resources it provides for humans *ANTHRO*	This statement views nature as a source of services and resources. It has a more instrumental approach to nature and draws value primarily from services. This statement thus aligns more with **anthropocentrism.**
Any planning of the marine environment should place humans at the center of interest *ANTHRO*	Given the focus on humans at the center of planning, the statement departs from ecocentrism and is more **anthropocentric** wherein human interests are central rather than those of the wider ecosystem.

Note. The table lists all statements included in the interview guide for *Section 5.2.* The statements have been labelled as ANTHRO (Anthropocentric) or / and ECO (Ecocentric). Rationales were elaborated based on the researcher`s case study knowledge and by adopting directly statements from benchmark sources.

Data Treatment

Interviews collected amount to a total of (n=21) which were transcribed verbatim. This was followed by the step of transferring data collected using keywords and excerpts in line with the question sequencing of the interview guide. The data collected was coded directly in line with the questions posed in the interview guide and organized systematically along spreadsheets using Microsoft Excel, that is, for each sub-area within the interview guide, an Excel tab was created and populated with the data for each interviewee. Upon registration of data collected, based on the findings, several questions were found to generate similar responses. The second step of the data collected revision revealed that several questions can be merged given that they produced content repetition which were merged for conceptual and analytical clarity. The interviews were numbered for reference and anonymized, therefore appearing in the manuscript in the format of Interviewee (1) = I1. The transcripts were edited in grammar and language for comprehension. Gender-neutral pronouns are used for all interviewee indications in the extracts.

3.3 Institutional and Business Values

This section is based on a 3-months research stay and project I developed titled *"Valutazione del valore socio-ecologico dell'ambiente marino e dei cetacei mirato a supportare l'organizzazione dello spazio marittimo, con un approccio multi-*stakeholder*"* (transl. from Italian *"Assessment of the socio-ecological value of the marine environment and the marine environment that supports the organization of marine space, with a multistakeholder approach*"). The methods employed include semi-structured interviews consisting of questions based on predefined thematic categories (Busetto et al., 2020). These were developed in response to the overarching research question guiding this study, a preliminary literature review, and observations gathered through the researcher`s previous experiences in the Ligurian area and within Italy. Moreover, given the scarcity of publications taking a social science approach to the Pelagos, the research was conducted based on an interest in learning about the functioning of a marine protected area for marine mammals particularly due to the researcher`s efforts of combining both social and ecological knowledge, and to contribute with a more holistic understanding. This lead to the formulation of the question *what are the values of institutional and business actors in charge of the*

activities and sustainable management in the marine space? To gain knowledge about timely issues of discussion, the researcher further participated in person and online in Pelagos-related events and fora organized by the Pelagos Secretariat, as well as events such as "Mediterranean Biodiversity Protection Community (MPBPC) in Action: Supporting cetacean conservation in the Pelagos Sanctuary" by Interreg Mediterranean Biodiversity Protection Community, by LIFE Conceptu Maris in Rome, as well as webinars including a EUROPARC webinar[14]. Observations and lessons gathered specifically about cetacean science were facilitated through participation in activities organized by the Marine Ecosystem unit at CIMA, including cetacean observations on its research vessel, *Headwind.* On the field, additional participation included whale watching tours enabled by the Ligurian whale watching operators.

Literature Review

The literature review conducted in preparation for this small-scale study establishes that, while whale watching can have detrimental impacts on cetaceans in the form of noise pollution, ship strikes, and pollution if not appropriately managed, it also offers an opportunity for ecotourism which can raise awareness about the value of the Pelagos (Notarbartolo di Sciara et al., 2008). This research is moreover motivated by the findings of Tepsich et al. (2020) whose innovative study assessed the status and quality of whale watching activities in the Pelagos Sanctuary. Furthermore, I identified documents relevant to the present management of the Pelagos and further key institutional documents were carried out based on the interviews with institutional actors.

Interviewee Selection

The actors belong to different management units (see Table 7) and make up an interconnected network of diverse actors invested in the Pelagos and marine conservation and management. Considering the institutional roles, the European Scale (DG ENV) is placed at the top followed by the Mediterranean Scale (ACCOBAMS), and the Pelagos Sanctuary scale (Pelagos Secretariat). Within the Pelagos Sanctuary, given the researcher`s position conducting research from within an Italian institution

[14] EUROPARC Webinar: https://www.EUROPARC.org/EUROPARC-webinars/previous-webinars/EUROPARC-webinar-transboundary-cooperation-to-protect-marine-nature-the-pelagos-sanctuarys-experience/

and location, focus was placed on Italian actors. These included research actors (ISPRA and CIMA), the regional perspective (Tuscan Region), and whale watching operators within Italy (Consorzio Ligure and Golfo Paradiso). Within France, the actors were based on an availability and scope of the research resulting in one interview (MIRACETI). Due to the location of the researcher and the scope of the study, the discussion of whale watching is primarily focused on the point of view of operations in North-Western Liguria. Selection was both opportunistic/convenience and criterion-based institutional and business actors invested in the Pelagos. Interviewees were identified based on a snowball method beginning with suggestions and networks from within the CIMA Foundation and specifically the Marine Ecosystem unit. The researcher maintained a weekly schedule for organizing communication and arranging interviews with a wide range of stakeholders who were contacted primarily through an institutional mail server or directly through guidance in the Marine Ecosystem unit. The interviewees amounted to (n=9) females and (n=3) males. While the research sought to diversify the interviewee population in terms of gender, it was found that most interviewees who responded and were in relevant roles are women.

Table 7

Interviewees Pelagos

Actor Relation	Geographic Focus	Interviews
Conservation and Science		
ACCOBAMS Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea, and contiguous Atlantic area https://accobams.org/	Monaco- Pelagos-Mediterranean	1
The Italian Institute for Environmental Protection and Research (ISPRA) https://www.isprambiente.gov.it/en LIFE C*onceptu Maris* Project coordinated by ISPRA	Italy-Pelagos-Mediterranean	2
MIRACETI https://miraceti.org/	France-Pelagos	1
CIMA	Italy-Pelagos-Liguria	2
Tuscany Region	Italy-Pelagos-Tuscany	1
Pelagos Secretariat		
Pelagos Permanent Secretariat https://www.sanctuaire-pelagos.org/	Monaco-Pelagos	1
Policy		
DG ENV- Nature Conservation Unit (European Commission)	European Union	1
Businesses		
Golfo Paradiso	Italy-Pelagos-Liguria	2
Consorzio Ligure	Italy-Pelagos-Liguria	1
Total		**12**

Note. The table provides an overview of interviewees in the Pelagos case including their institutions / business relations and the geographic focus.
Source: Author`s elaboration

Limitations

The network connections informing this research were shaped by a three-months doctoral research stay at the premises of the CIMA Foundation Marine Ecosystems Office and with the guidance of experienced professionals and marine biologists working directly on issues connected to the Pelagos Sanctuary, with a focus on cetaceans. Limitations existed mainly in the form that my network was shaped by the relations established within the context of my research stay. Actors working across sectors were contacted (for instance, the Port Cros National Park in charge of the French delegation), however, the researcher recognizes that the study is limited in its representative scale, in part due to the scope of the study and dependent on the responses and availability of individuals. Therefore, the study focuses on the Ligurian perspective. Yet, despite limitations, the actors are a representative sample for the purpose of this study.

Data Collection

A total of 12 interviews were conducted lasting from around 30 up to 60 minutes. The interview guide was adjusted in its sequence and slightly in its diction for interviewees given the diversity of stakeholders and their differing positions. However, the core thematic areas were maintained for all interviewees. A semi-structured interview was guided by key variables of interest to the research and contextually relevant i.e., values of stakeholders, relation to the Pelagos, perspectives on the transboundary role, views on how different management regimes are interacting (when in an institutional or scientific position), and perceptions of cetaceans and the wider ecosystem. Before data collection and analysis, values were approached as areas potentially informing the social/ethical and ecological/environmental baseline of actors, that is, the normative dimension of their professional roles. At an institutional scale, the mission, purpose, and vision form part of the cone of values (Avedisian & Bennet, 2010). Following the initial exploratory interviews, it was found that the introductory question on values functioned as a guiding question to identify the professional roles of the interviewees and the respective institution/business/position in which they are employed. As such, interviewees referred to priorities, objectives, vision, and knowledge indicating the role of their professional position and institutional or operational context. From

thereon, the term *values* was thus interpreted in a more encompassing format including priorities, visions, values, and knowledge which represent the determining basis of an organization's operations.

Data Treatment

In terms of data treatment, all audio-generated recordings were transcribed and corrected slightly in grammar when needed for coherence. The transcripts were developed using HappyScribe and coded using a coding software to facilitate the inductive coding process and identify emerging and recurring themes (see Table 8). The analysis of the qualitative interview transcripts was conducted using NVIVO 1.7.1 software. After the initial coding process, conceptually related, or surface-level codes, were grouped in line with thematic relevance, for instance, “coordinated management” and “transboundary”, in this case, both relating to management across scales. To generate thematic areas for discussion that would enunciate the relations between findings, the next phase involved axial coding to draw connections between the topics that emerged. The research adopts an inductive coding approach guided by predefined interests namely in values, tourism, whale watching, and the Pelagos management. Throughout the coding process, the researcher actively kept an open perspective to linked thematic areas, also in view that the research is not set out to test a hypothesis but to generate knowledge and understanding about a phenomenon and interlinked areas of research interest. For instance, in addition to prior research interests, further insights were gathered about current challenges and future priorities which inform the context of the case study.

Table 8

Pelagos List of Codes

1. Policies for conservation **(6)**
2. Policies and Governance at the EU level **(6)**
3. Sustainability Principles in EU Green Deal (**6)**
4. Inherent and economic values of nature **(6)**
5. Awareness of nature`s finite resources
6. Short-term thinking about the environment prevails **(6)**
7. Pelagos scientifically proven as an important area for cetaceans **(3)**
8. Pelagos as an experimental lab for cooperation internationally **(2)**
9. Importance of Natura 2000 sites for nature protection **(1)**
10. Importance of transboundary areas and management **(2)**
11. Marine conservation and effective management ar**e** a process **(1)**
12. Stakeholder engagement in marine spatial planning **(1 & 3)**
13. Citizen engagement and ocean literacy for environmental restoration **(4)**
14. Challenge: Overcoming a Paper Park **(6)**
15. On-board education and awareness raising **(4)**
16. Observed increased interest in tourism into natural environments **(5)**
17. Higher expectations among tourists to see jumping whales **(5)**
18. Raising awareness about anthropogenic impacts including pollution **(4)**
19. Public engagement **(4)**
20. Natura 2000 sites as important areas besides the Pelagos **(1)**
21. Feeding areas of whales **(1)**
22. Besides whale watching, operators record and share data with scientists (data collection) **(3)**
23. Biodiversity Awareness including birds and cetaceans **(4)**
24. Bird protection and environmental education **(4)**
25. Education among people through photography **(4)**
26. Photography for awareness and appreciation **(4)**
27. Protecting sea floor **(6)**
28. Diving and marine conservation **(1)**
29. High-Quality Whale watching Label **(5)**
30. Education and Awareness **(4)**
31. Sustainable and slow tourism practices **(5)**
56. Charismatic species **(4)**
57. Public awareness **(4)**
58. Transboundary / Transdisciplinary Cooperation **(2)**
59. Need for social science for stakeholder engagement **(3)**
60. Pelagos is a Laboratory **(1)**
61. Data collection during whale watching tours **(3)**
62. Data collection through photography **(3)**
63. Various species seen in Ligurian waters **(3)**
64. Awareness raising about anthropogenic impacts among tourists **(5)**
65. Interest in whale watching tours which have a naturalistic approach **(5)**
66. Pelagos Sanctuary mentioned during whale watching tours **(4)**
67. Challenges within Italy to raise awareness about the environment **(6)**
68. Data Collection on Vessels **(3)**
69. Understanding and mapping marine mammal areas **(3)**
70. Identifying areas important for species in offshore space **(1)**
71. Natura 2000 sites mainly in coastal areas **(1)**
72. Marine conservation and management through measures for reducing risks **(1)**
73. Data Collection and surveillance of species **(3)**
74. Transboundary areas of importance for cetaceans: Gulf of Lion **(2)**
75. Transboundary areas of importance for cetaceans: Spanish migration corridor **(2)**
76. Importance of whale watching for awareness raising and changing relationship to the environment **(4 & 5)**
77. Remaining knowledge gaps about cetacean behavior during whale watching **(3)**
78. Pelagos agreement values and vision iare clear: managing activities within the Pelagos area **(1)**
79. Pelagos for marine mammals **(1)**
80. Cooperation for research, management**,** and conservation **(1 & 2)**
81. Pelagos preceded marine spatial planning and was innovative **(1 & 6)**
82. Pelagos as a precursor of marine spatial planning **(1 & 6)**
83. Management at the national level **(1)**
84. New plans have been created for the Pelagos **(1 & 6)**

32. Lack of awareness of marine mammals in Liguria **(4)**
33. Tourism operators diversify tours in Italy **(5)**
34. Whale watching industry is growing **(5)**
35. Challenge that interest is concentrated in coastal areas when open seas are equally relevant for marine management efforts **(6)**
36. Cetaceans stay mainly in the open sea which needs good management practices **(1 & 6)**
37. Challenge in getting interest in the Cuvier-beaked whale by policy makers **(6)**
38. Data collection and research on Cuvier-beaked whale **(3)**
39. Different species of whales have different behaviors not all of which meet the expectations of tourists "whales jumping, showing tails" **(6)**
40. whale watching not primary attraction for tourists to come to Italy **(6)**
41. Lack of registry - a registry would confirm that whale watching is an official activity **(6)**
42. Lack of awareness among tourists about whale watching in Liguria compared to other places such as Azores **(4&6)**
43. Migratory animals means slower shipping speeds needs to be implemented everywhere they move **(1 & 6)**
44. Policies and governance in Italy about ecology and nature still lagging **(6)**
45. Transboundary Cooperation for migratory species needed **(2)**
46. Marine Conservation and management **(1)**
47. Anthropogenic threats to marine mammals **(6)**
48. Transboundary Cooperation **(2)**
49. Marine Conservation and Management / Transboundary Cooperation **(1 & 2)**
50. Migratory species need transboundary regulations **(2)**
51. Marine Conservation and Management **(1)**
52. Heritage **(4)**
53. Education and Awareness **(4)**
54. Policies and Governance **(6)**
55. Marine Ecosystem Dynamics and Relations **(1)**
85. Awareness and Public Engagement in Pelagos Activities **(4)**
86. Vision **(1)**
87. Harmonizing whale watching legislation between Italy, France**,** and Principality of Monaco **(1 & 2)**
88. Transboundary areas for cetaceans **(2)**
89. Tuscan archipelagos and Natura 2000 sites **(1)**
90. Importance of connectivity between Natura 2000 sites **(1)**
91. Data collection in the Pelagos **(3)**
92. Scientific knowledge for marine conservation **(1 & 3)**
93. Lack of knowledge among citizens about impacts on marine environment **(4 & 6)**
94. Lack of funding for conservation **(6)**
95. Importance of education about biodiversity **(4)**
96. Tourism as a pathway for raising environmental awareness **(4 & 5)**
97. Although there are many conservation efforts and commitment, there remains isolation among them **(6)**
98. Need for coordination among actors for effective management **(1)**
99. Values as guidelines (management and action plan) **(6)**
100. Important to be clear on responsibilities for the parties involved **(2 & 6)**
101. Four key areas: cooperation, communication and training, cetaceans/marine mammals, and governance **(6)**
102. Cooperation and collaboration for protection and conservation **(1 & 2)**
103. Transboundary element is the basis of the Pelagos agreement **(2)**
104. Importance of collaboration with stakeholders nationally and internationally **(2)**
105. High-Quality-Whale Watching Label one of the most important activities that happened for the Pelagos **(1 & 2)**
106. Tuscany as a place for observation of climate change impacts on marine life **(3)**
107. Tuscany invested significantly in monitoring and data collection **(3)**
108. Turtles and cetaceans attracted media attention and changed societal awareness **(4)**
109. Communication and tourism transformed relationship to the environment **(5)**
110. Citizen science and coastal networks **(4)**
111. European policies were integral to advancing marine conservation (such as through Natura 2000) **(6)**

	112. Marine conservation and management measures in collaboration with fisheries **(1)**

Aggregated coding categories

1. **Marine Conservation and Management**
2. **Transboundary Cooperation**
3. **Data collection and Research**
4. **Education and Awareness**
5. **Sustainable Tourism Practices**
6. **Policies, Governance and Challenges**

Note. The table reflects the codes generated from transcripts with interviewees in the Pelagos. Following the initial coding, they were grouped into more aggregated groups as indicated in the table. The aggregated coding number has been placed next to each code in the table.

Ethical Considerations

Each interviewee was presented with an informed consent form following the European GDPR standards (see Appendix 6) approved by the CIMA legal team to facilitate audio recording, transcription, and the inclusion and treatment of their interviews in the study in line with ethical standards. Respectively, within the following discussion, data has been anonymized and adopts gender-neutral pronouns. The excerpts are anonymized using indicators wherein scientists are described with (SNumber), Institutional Representatives (IRNumber), Tourism operators (TNumber), and Regional Representatives (RRNumber). Notably, the interviewees often had several functions working in boundary organizations where both the institutional and scientific roles were represented, and several interviewees have a doctoral degree.

4. Case Studies

This research is informed by two case studies with the first case study in Iceland constituting two parts. Most of the data collection, time, and resources were invested in this case of primary focus and specifically into the coastal community of Húsavík and the oceanic bay of Skjálfandi. The location and form of participation in this research were shaped through the association to JUSTNORTH Case Study 8 titled *Communities, Globalisation and Marine Tourism in Iceland* which defined the place for my research. The second case study site and research stay was selected and secured by the researcher following findings, identifying possibilities, and resources to conduct further complementary research. Moreover, the Mediterranean case was chosen in view of contributing to the vision and mission of the CER Arctic at the Autonomous University of Barcelona which seeks to bring together research in the Mediterranean and the Arctic[15] with a focus on two main social issues, namely "comparing between the Arctic and other regions are maritime tourism and marine protected areas (MPAs)." (High North News, 2018). Following this vision and the literature review, the second case study research was conducted from the base of CIMA in Liguria founded by the National Civil Protection Department of Italy, the University of Genova, the Government of the Region of Liguria, and the Administration of the Province of Savona. The research was completed in collaboration with the Marine Ecosystems unit which focuses on cetaceans. The identification of the research center took place through my mapping of scientific actors working on the case of the Pelagos and through identification of recent literature on whale watching (see Tepsich et al., 2020).

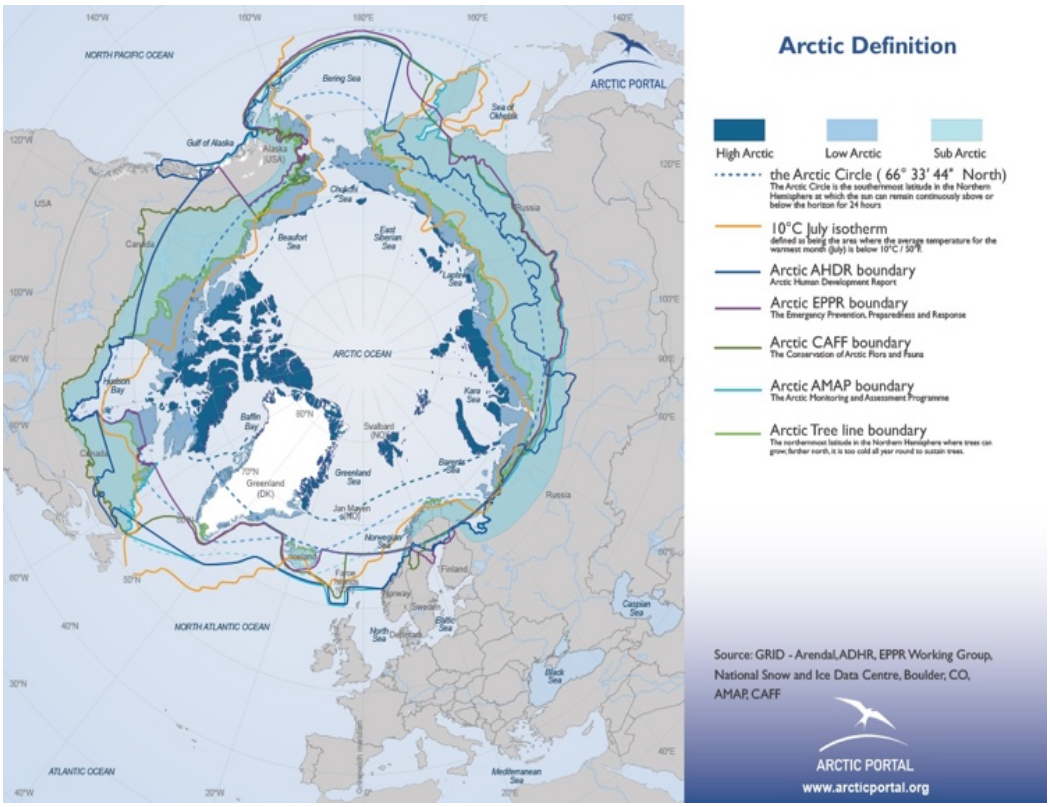
4.1 The Arctic Context

To begin establishing the context of these case studies, the first case is framed in the wider Arctic context. The Arctic is a vast and variegated place (see Image 5), home to approximately 4 million inhabitants. The region can be organized into the High Arctic, Low Arctic, and Sub Arctic (GRID-Arendal et al. et al., 2024) .

[15] As reported by The John Sloan Dickey Center for International Understanding (2018)

Image 5

Definition of the Arctic



Source: Retrieved from arcticportal.org

One theory for its name originates from the Greek *árktos* ἄρκτος (transl. *near the Bear, arctic, northern)* about the proximity to the constellations Ursa Major and Ursa Minor in the northern sky (The American Heritage Dictionary, n.d.) and the idea of the Arctic region has been documented to have come relatively recently into being. The Arctic was once perceived as a vast site for exploration and extraction of natural resources, including for cultural and subsistence practices such as whaling and wildlife hunting (Spence et al., 2023). The Arctic is often framed as a *frontier* whether addressed in the context of tourism, climate change, or the energy transition - among them, the *last* frontier and alluring destination for tourism the *first* impacted by accelerated climate impacts and environmental change also framed as *Polar Amplification*, and as an *extractive* frontier, albeit the recognition that the region is experiencing climate change and more sustainable practices are advocated (Sidortsov, 2023). Indeed, diction including *race* and *rush,* or *Battle for the Great White North* (Marzio, 2018), to the Arctic are commonly used to signal an

urgency in the Arctic as a geopolitical scene of increased interest. As global demands for resources increase, ocean economies, or in other words, the expanding ocean scape that emerges due to global warming, has in the Arctic become of growing interest for expanding industries to the marine realm, including through marine agricultural projects such as aquaculture, and marine-based tourism activities. The developments that have arisen with the contemporary status quo encompass a variety of industrial activities including energy production, aquaculture, and tourism which call for suitable policy regimes. Such policy challenges for ocean governance have commonly been framed as *wicked* characterized by uncertainty and having no straightforward definition or solution (Rittel & Webber, 1973). The impacts are not limited to human populations and have system-wide implications, extending to multiple terrestrial and aquatic species, and biodiversity, marine and land-based life have been rapidly changing and the degradation of ecosystems and the loss of species has become a concern of urgency.

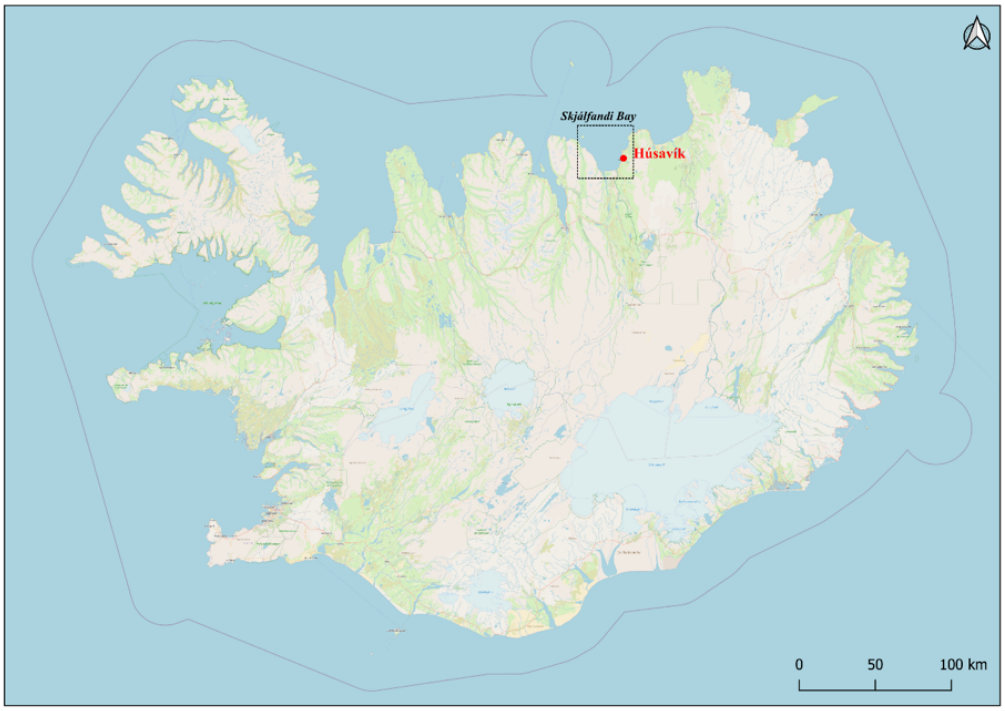
4.1.1 Húsavík and Skjálfandi Bay in Northeastern Iceland

Iceland, an island sized 103,592 km², is commonly portrayed as the land of fire and ice. Geologically, Iceland represents a young landmass on Earth and is situated on two tectonic plates, the North American and Eurasian. Iceland is a nation of many natural resources and phenomena including geothermal energy sources, marine megafauna, and volcanoes and glaciers, offering a setting for the consideration of nature-based solutions to sustainability challenges. One of the most sparsely populated countries in the world, predominantly populated on the coast, the country, as of 2023, has a population of 387,758 (Statistics Iceland, n.d.). Iceland, both a member of the Arctic Circle and part of the European Economic Zone (EEZ), is a country where marine planning is a relatively young idea in its national planning strategy. Notably, Iceland is an active member of the Oslo and Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) and with a total of 764,239 km^2 of marine area (to the limit of the Exclusive Economic Zone) various areas are under the mechanisms of individual laws (in Icelandic *sérlög*) and the OSPAR convention, the largest being Breiðafjörður (Marine Protection Atlas, n.d.). A significant increase has been observed from 2000 to 2020 in national parks, nature reserves, and other protected areas (ibid).

According to the Landnámabók (transl. from Icelandic, Book of Settlement), Húsavík is the oldest settlement in Iceland. The Norðurþing Municipality is home to the coastal town of Húsavík (“Cove of the Houses”) and Skjálfandaflói (Skjálfandi Bay translated “Shaky bay”) (see Map 1).

Map 1

Iceland Case Study Site



Note. Area indicated shows the approximate location of the town Húsavík
Source Base Map Open Street Map. Author`s elaboration with QGIS.

The town has become renowned as a whale watching destination in Europe. Since its inception in 1995, whale watching transformed the town from a fishing-based community to a tourism destination and now represents one of the primary activities generating jobs and income which confirms the importance of securing both the economic benefits for the local community and preserving the habitat of whales in Skjálfandi Bay in a sustainable way. Moreover, it is particularly the presence of cetaceans that have attracted scientific attention to Iceland including to Faxaflói, the outer area of Beidafjördur and Skjálfandi Bay (Bertulli et al., 2016).

Regarding marine and coastal planning, pilot plans were initiated in the East and Westfjords[16] (Hafskipulagsstefna, n.d.)[17] and in 2020, the Norðurþing Municipality applied for marine planning under the new Icelandic Law 88/2018 on Planning of the Coastal and Marine Areas for Skjálfandi Bay (Norðurþing, 2020) and as such confirms the rationale of this study. Among the goals of the Planning Act, the public role is recognized in planning decisions that "concern the interests of the public and can lead to major changes in the environment. That is why it is important that the views of the public are expressed when planning."[18] (Skipulagsstofnun, n.d.). This is echoed in Article 1e of the Alþingi Law on the organization of sea and coastal areas 88/2018 which sets out to ensure the consultation of the public and other stakeholders during planning[19]. The introduction of the 2018 Planning for Coastal and Marine Areas Act (PCMAA) by the Icelandic Parliament set a new framework for marine and coastal affairs which constitutes a direct reference to the engagement of stakeholders and strengthening procedural justice (JUSTNORTH,n.d.). Furthermore, the Law on the Organization of Ocean and Coastal Areas 2018 no. 88 June 26, Chapter 1, Article 1 (*Law 88/2018,* Alþingi) includes the objectives of the law which verbatim are:

> "a) that the utilization and protection of the resources of the ocean and coastal areas will be in accordance with an organization that has the economic, social and cultural needs of the people, their health and safety as a guiding principle
> b) that planning provides a basis for the diverse use of resources in ocean and coastal areas based on overall view of ocean issues, an ecosystem approach and the protection of natural and cultural heritage, with sustainable development as a guiding principle; Furthermore, planning takes into account the effects of climate change
> c) to ensure legal certainty in the handling of planning matters so that the rights of individuals and legal entities are not overridden even if the benefit of the whole is taken as a guiding principle

[16] In 2022, the processes in the East and Westfjords prioritized fish farming activities and aquaculture industry
[17] The status of the two areas and updates on the areas considered for the national planning policy can be found on the website of (Hafskipulagsstefna, n.d.)
[18] Original in Icelandic "Eitt af markmiðum skipulagslaga er að tryggja að samráð sé haft við almenning við gerð skipulags. Skipulagsákvarðanir varða hagsmuni almennings og geta haft í för með sér miklar breytingar á umhverfinu. Þess vegna er mikilvægt að sjónarmið almennings komi fram við gerð skipulags."
[19] Original in Icelandic "að tryggja samráð við almenning og aðra hagsmunaaðila við skipulagsgerð"

d) to ensure consultation and cooperation with local authorities on the planning of coastal areas and its compliance with planning plans according to planning laws, e) to ensure consultation with the public and other stakeholders during planning, f) to ensure professional preparation of projects in ocean and coastal areas"

According to Erich Hoyt (2011), the rationale for protection is to preserve a pristine area that constitutes significant feeding grounds for cetaceans. He argues that an MPA could contribute positively to the publicity of the area. A marine protected area approach in Iceland has been subject to discussion since 2004[20] yet Iceland appears not to have shown the political will to designate protected habitats for cetaceans through MPAs (Hoyt, 2011). Hoyt clearly outlines the species in Skjálfandi Bay and the rationale for protecting the area. Among cetaceans and notable species, he lists the minke whale (*Balaenoptera acutorostrata*), white-beaked dolphin (*Lagenorhynchus albirostris*), and harbor porpoise (*Phocoena phocoena*). Visiting species include the humpback whale (*Megaptera novaeangliae*), sei whale (*Balaenoptera borealis*), blue whale (*Balaenoptera musculus*), and northern bottlenose whale (*Hyperoodon ampullatus*). In terms of research for regulations, ecocentrism has been proposed as a framework for Skjálfandi Bay in a study by Moroz (2022) which proposed the establishment of an MPA with no-take zones for Skjálfandi Bay with an ecocentric perspective.

4.1.2 The EU in the Arctic and the Arctic in the EU

From policies, export-import dynamics, citizen, and tourism mobility to formal commitments to mitigating climate change impacts, the EU and the Arctic are bound by relations and values with direct and indirect implications[21]. The European Union, a union founded on values including democracy, equality, human rights, freedom, justice, and the rule of law, has made several commitments to the Arctic region. The EU is an active participant and observer in the Arctic and currently guided by the EU's 2021 policy. Moreover, the EU and Arctic are linked through trade via the European Economic Area Agreement (EEA) which includes cooperation directives in sectors

[20] In 2023, Skjálfandi Bay was recognized as the first Hope Spot in Iceland by Mission Blue which on its website describes Hope Spots as areas which support planning and looking beyond marine protected areas and can act as areas where new protection measures are needed (Mission Blue, n.d.).
[21] For an overview of EU actions in the Arctic and their impacts, see for instance Koivurova et al. (2021)

such as fisheries policies as well as in innovation and research through programs such as Horizon 2020. Considering wider scales of international cooperation, the EU and the Arctic region remain closely allied on multiple fronts exerting influence upon each other in part due to geography, shared research agendas, and economic relations.

The European Arctic encompasses the northernmost regions of Finland, Norway and Sweden, northwest Russia, the Faroe Islands, Greenland, and Iceland. The EU Arctic Policy titled *A stronger EU engagement for a peaceful, sustainable and prosperous Arctic* (2021) communicates that the EU`s full engagement in the Arctic is a geopolitical necessity (p.2) and is committed to making the Arctic more resilient to environmental degradation, climate change and to protecting land and ocean (ibid, p.7). Mentions specifically targeting marine issues include the EU`s support of the designation of MPAs including through the measures set out by the OSPAR convention (ibid, p.8). While there is no international convention on MSP applicable to the Arctic, several legislative frameworks guide governance[22] including the 1982 United Nations Convention of the Law of the Sea (UNCLOS) and the 1992 OSPAR convention which remain vital references for the development of MSP. Particularly UNCLOS is internationally significant for guiding human-ocean relations (Kidd, 2018). Ultimately, marine planning in its various shapes is enshrined in national legislation.

To set the contextual scene for the wider Arctic, nations are principally guided by the vision of the Arctic Council wherein the Working Group on Protection of the Arctic Marine Environment (PAME) published in the Arctic Marine Strategic Plan 2015-2015 a list of goals and a framework to guide actions to protect Arctic marine and coastal ecosystems in view of promoting sustainable development, expressing a commitment to a "healthy and productive Arctic Ocean and coasts that support environmental, economic and sociocultural values for current and future generations." (PAME, 2015). Towards the marine environment, PAME advocates for an ecosystem-based approach for managing Arctic marine environments (Langlet, 2018). While Iceland remains relatively young in its marine planning measures, Norway`s marine

[22] For a comprehensive overview of legislative structures, see for instance (Schütz, 2018)

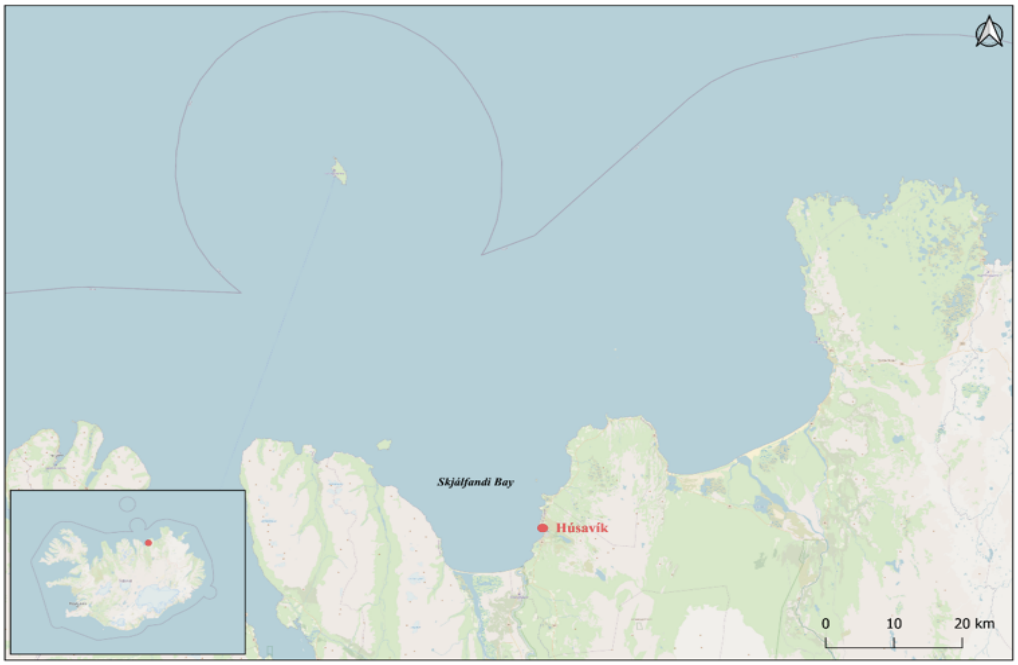
plans have been discussed more prominently in Arctic marine management literature. Norway's national government presents Norway's ocean management plans as constituting an established MSP system (Ministry of Climate and Environment, 2014) with the purpose of providing a framework for value creation while maintaining the ecosystem integrity. The plan for an integrated ecosystem-based management plan for the Barents Sea and Lofoten area constitutes three phases: scoping (status reports on environment and resources, valuable areas, socioeconomic aspects and economic activities), Phase 2 (assessments of impacts of oil and gas, shipping fisheries, external influences, including consultation with the publica on mandate and final reports, and Phase 3 an aggregated analyses (total impacts, management goals, gaps in knowledge, vulnerable areas and conflict of interests) including a stakeholder conference (Von Quillfeldt et al., 2017). Among remaining challenges in Norway, (Jentoft & Knol, 2014) frame their discussion of MSP in the North Sea coming from a fisheries perspective, pointing to the complex governance challenges including the need for the inclusion of marginalized stakeholders. Climate change has been identified as the most eminent threat to Arctic biodiversity (Barry et al., 2023). MPAs can support climate change strategies of coastal communities and nations, contribute as sites for research and observations, and support the reduction of anthropogenic stressors. MPAs, when implemented with informed restrictions to reduce stressors, have been identified as critical to building the resilience of systems to climate change through the protection of habitats including for marine mammals, coral reefs, and mangroves. Furthermore, MPAs can serve as sites for research and observations to document climate change impacts as set forth in international obligations including the UN Framework Convention on Climate Change (UNFCCC) and other international agreements (IUCN, n.d.).

4.1.3 Human-Wildlife Interactions: Whale watching in Skjálfandi Bay

Whale watching, which takes place in Skjálfandi Bay, has impacted various aspects of life in the coastal community of Húsavík (see Map 2).

Map 2

Húsavík and oceanic bay of Skjálfandi



Source: Base Map Open Street Map. Author's Elaboration with QGIS.

Marine planning does not start with a blank canvas. As highlighted by Jentoft and Knol (2014), marine management occurs within the context of existing management interventions and stakeholders will likely defend their existing interests. As such, any management plan ought to attend to the relationship between the practice of whaling and the economic role of whale watching. Therein "whale watching can thus be seen as a form of adaptation, and a response to external drivers of change" (ibid, p.133). Moreover, as put forth by Einarsson (2009), there has been a change from consumptive values (whales being hunted for food) to non-consumptive values in Iceland, a change which has been attributed to people`s recognition of the economic value attached to whale watching (Wilke et al., 2021). There is an ongoing adaptation process in the relationship to whales indicating a transition "From Good to Eat to Good to Watch" (Einarsson, 2009). Malinauskaite et al. (2021), drawing on insights by Einarsson

(2009), note that the treatment of whales as resources has transformed in the second half of the 20th century with a movement from commercial whaling to whale watching tourism. Presently, the main economic activities in Húsavík are fishing and fish processing, agriculture, public services, tourism, and other service industries.

Within the local community, and particularly for *fisherfolk* (borrowing Tim Ingold`s words), Einarsson (2009) raised awareness more than a decade ago about the historically grounded and differing perceptions of marine mammals, the symbolic values surrounding whaling, and the presence of "fundamentally divergent perceptions and images of cetaceans, based on very dissimilar environmental experiences relating to these sea mammals." (p.130). In his earlier publication "A Sea of Images: Fishers, Whalers and Environmentalists" (1996), Einarsson recounts that Icelandic fishers did not believe whales are intelligent or to be spared from hunting and Icelandic small-scale fishers have practically based experience with resources on which they depend for their livelihood. He explains that fisher's worldviews presupposes claims to resources and is informed by traditional knowledge gained through proximity to resources. To elaborate on experiences shaping this worldview, whales were seen as potentially dangerous because they may hit the boats and are considered predators who feed on the fish available otherwise to fishermen. Einarsson argues that conservation efforts ought to be in line with the realities on the ground wherein the conservation of wildlife and natural resources depends on the cooperation and engagement of local resource users (ibid). Considering some of the cultural particularities of Húsavík, one of the most attractive pull factors is the cultural authenticity that lives on in the restoration of wooden and former fishing boats.

Rasmussen (2014) has published multiple studies on cetaceans in Iceland including on the historical debate about whaling and whale watching. Therein, she describes Iceland as a unique example of a country transforming from a whaler to a whale watching country and thereby from a fishing-dependent to a tourism industry driven place. She traces the historically rooted utilization of whales as resources which was further reflected in religious beliefs about the appearance of whales, for instance, a stranded whale *Hvalraki* (Icelandic) was perceived as a gift and reason to celebrate. Rasmussen further refers to the main institutions to which Iceland subscribes such as the

International Whaling Commission (IWC). Iceland has been a member since 1947, however, Iceland continued a small scientific whaling program, and killed some 60 whales a year until 1989, and withdrew from the IWC in 1992. Iceland rejoined the IWC in 2002 with a legally disputed reservation against the moratorium. The IWC provides for the proper conservation, and thus protection, of whale stocks and thus makes possible the orderly development of the whaling industry. The IWC further designates areas for whale sanctuaries, limits the number and size of whales to be hunted, defines seasons and areas for whaling, and prohibits the capture of suckling calves and female whales accompanied by calves. The debate on whale watching and whaling continues and in summer 2023, the dispute on whaling in Iceland took another turn[23] further activating discussions about the protection of marine life. Most recently, in June 2024, Iceland`s government issued a license allowing Hvalur hf., the last fin whaling company in Iceland, to hunt 128 fin whales in the waters of Iceland, some parts of Greenland, and the Faroe Islands (Hui, 2024).

4.1.4 Arctic Tourism and the Northeastern Icelandic Context

The Arctic is an alluring destination for various people on the move from tourists to seasonal labor migrants, and indeed, the pull to the proclaimed *last frontier* of tourism (Huijbens, 2022) and to wilderness in high latitudes, such as in the case of Iceland (Sæþórsdóttir et al., 2011) has become an accessible destination. Tourism has evolved into a lucrative sector particularly for remote coastal communities including Húsavík, Iceland. On the global scale and considering the geological context of the proposed Anthropocene era. Arctic socio-ecological systems have become the *first frontier* of pressures linked to forces of globalization, including international tourism (Crutzen & Steffen, 2007). Moreover, the Arctic is a vast and diverse region and tourism growth has been sporadic and is often concentrated in specific areas (Maher et al., 2014). Before addressing the specific case study site, it is noteworthy that on the Icelandic national scale international tourism has established itself in the market representing a major export earner accounting for 520 billion Icelandic Kronas in 2018, equivalent to 39% of total export revenue (OECD iLibrary, n.d.). Regarding the development of policies to regulate the rapid increases in the tourism sector, major challenges have

[23] As reported by Kirby (2023) in the BBC

been identified in tourism policy (Maher et al., 2014) one of which for Iceland is to maximize the gains from tourism while protecting the assets upon which it depends. Considering past studies on the motivations of tourists to Iceland, the unspoiled wilderness was found to be one of the most important resources of Icelandic tourism, as laid out in the Proposal for a Parliamentary Resolution on National Tourism Policy (Sæþórsdóttir et al., 2011). Moreover, the search for wilderness and wildlife encounters has been moving visits to the Arctic region. Promoted as "Europe's last wilderness", Iceland is advertised as a country with characteristics including pure, natural, and unspoiled (Oslund, 2005). Tourism regulations remain in the early crafting in the Northeast of Iceland and tourism policies are mainly regulated by larger municipalities. Húsavík`s tourism sector and specifically whale watching activities have been rapidly evolving prompting questions about sustainability including the impacts on cetaceans In Húsavík, the adaptation process includes the transition from a primarily fishing community to a whale watching destination where attractions include charismatic marine- and avifauna (Huijbens & Einarsson, 2018). The space in which whale watching and multiple other commercial and non-commercial activities take place, Skjálfandi Bay has furthermore become subject to coastal and marine planning, launched by the Norðurþing Municipality (Norðurþing, 2020). Considering matters of salience, this study emerges in the context of ongoing marine and coastal planning, including discussions about a marine protected area (MPA) in Northeastern Iceland prompting a discussion about the implications for integrated ecosystem-based management and ethical considerations in future regulations, including those about marine tourism.

Findings on motivations in Rögnvaldsdóttir (2019) found that most tourists (79%) visited Húsavík for whale watching, followed by reasons related to a roundtrip tour/mobility (9%), and for nature and beauty of the place (4%). Moreover, the search for wilderness and wildlife encounters has been motivating travel to the Arctic region. Tourism regulations remain in the early development stages in the Northeast of Iceland and are mainly regulated by bigger municipalities. Húsavík`s tourism sector and specifically whale watching activities have been rapidly evolving prompting questions about sustainability including the impacts on cetaceans (Hoyt & Parsons, 2014). In Húsavík, the transition is one from a primarily fishing community to a whale watching

destination where attractions include charismatic marine- and avifauna (Huijbens & Einarsson, 2018). Whales have played a key role in this transformation and their value has been assessed in terms of ecosystem services revealing their value on multiple scales (Cook et al., 2020; Malinauskaite et al., 2021). The space in which whale watching and multiple other commercial and non-commercial activities take place, Skjálfandi Bay has furthermore become subject to coastal and marine planning, launched by the Norðurþing Municipality (Norðurþing, 2020).

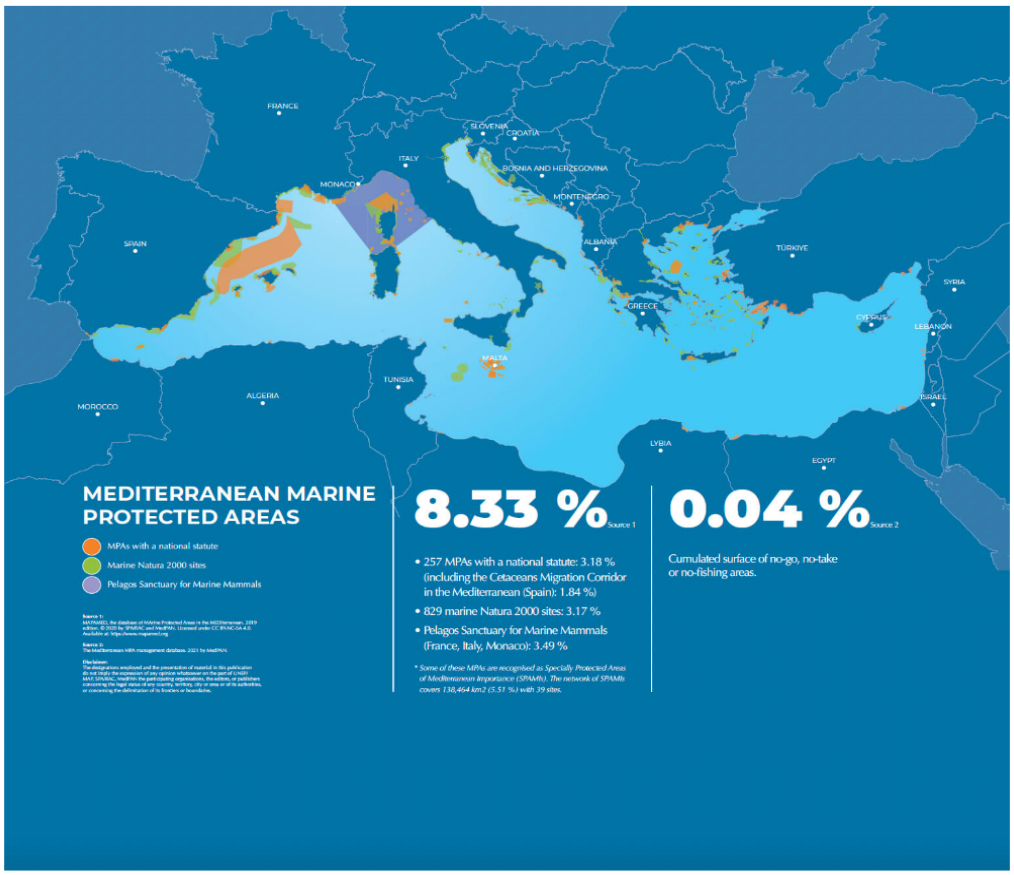
4.2 The Pelagos Sanctuary - A Specially Protected Area of Mediterranean Importance (SPAMI)

The Mediterranean Sea[24] represents the largest semi-enclosed sea on Earth and a meeting point for Europe, Africa, and Asia. A valued reservoir for marine biodiversity, the Mediterranean Sea constitutes critical habitats for endemic species, areas of reproduction, wintering, and a migration corridor for marine mammals (SPA/RAC, n.d.). The health and conservation of marine ecosystems sets an essential foundation for the futures of both human and non-human life across nationally defined borders. These ecosystems are yet transforming and threatened in their sustenance due to a combination of accelerated climatic changes and the impacts of anthropogenic activities, placing it on the Red List of Threatened Species (IUCN, n.d.). As of 2020, only 8.33% (see Image 6) of the Mediterranean Sea is under official designation of a protected status (MedPan, n.d.; Monaco Explorations, n.d.).

[24] From the Latin, *Mediterraneus* meaning inland. Historically, also referred to as *Mare Nostrum* (From the Latin transl. *Our Sea*)

Image 6

Status Mediterranean Marine Protected Areas



Note. Legend elaborated by Monaco Explorations. Map indicates Pelagos Sanctuary for Marine Mammals shared between Italy, France, and the Principality of Monaco.
Source: Monaco Explorations

In response, various institutions and policy frameworks are being mobilized to plan for the sustainable governance of marine biodiversity and to restore and mitigate the degrading state of land and sea environments. The Mediterranean Sea is yet subject to several challenges which are expected to grow in the future including climate change, habitat degradation and changes in biodiversity (Coll et al., 2010). Locating this research in the present policy landscape, within the European Union and at an international scale, frameworks such as the EU Biodiversity Strategy for 2030, the European Green Deal, Marine Spatial Planning Directive (MSPD), the UN Ocean Decade (2021-2030) have set a timely agenda for the current decade. Such initiatives and regulatory frameworks have the potential to steer a global movement of priorities and visions for addressing issues such as biodiversity conservation, the advancement

an educational curriculum integrating ocean literacy, marine management, and mitigation strategies. Among one of the key achievements in the global ocean community, 2023 marked the year of an agreement to advance a treaty for the High Seas, an instrument of UNCLOS, to protect the world's oceans through measures such as MPAs in the high seas (United Nations, 2023). Within the geopolitical boundaries of the European Union and the Mediterranean, one policy output, and the instrument of interest to this study, has been implemented in the form of area-based protection measures.[25] These have included, among others, nationally designated Marine Protected Areas (MPAs), Other Effective Area-Based Conservation Measures (OECMs), Specially Protected Areas of Mediterranean Importance (SPAMI), Particularly Sensitive Sea Areas (PSSA), and Natura 2000 sites. The creation and continued development of such sites indicates an increasing identification of the ecological sites important to Mediterranean biodiversity, including non-human life such as *Posidonia Oceanica*, monk seals, and cetaceans including Cuvier's beaked whales (*Ziphius cavirostris*), long-finned pilot whales (*Globicephala melas*), striped dolphins (*Stenella coeruleoalba*), and short-beaked common dolphins (*Delphinus delphis*), Risso's dolphins (*Grampus griseus*), common bottlenose dolphins (*Tursiops truncatus*), and a myriad of other life forms and species. Within the area of the Pelagos, the North-Western area is characterized by a geomorphological and oceanographic set of characteristics particularly fertile as in their productivity levels, as stimulated by the canyon range and upwellings (Marine Mammal Protected Areas Task Force, n.d.). Moreover, the area is an important place for several ports including Genoa, Italy, Monte Carlo, Principality of Monaco, and Nice, France.

This second case study focuses on one specific geographic area where a spatial measure has been implemented. The Pelagos Sanctuary for Mediterranean Marine Mammals (see Map 3)[26] comprises a total marine area of 87 500,00 km² (MAPAMED, n.d.). At the time of its establishment, the Pelagos constituted the high seas[27] (Latin. transl. sea / high seas) and represented a pioneering effort to create a transboundary site for marine conservation. Based on the political will of France, Italy, and the

[25] For a comprehensive overview of area-based measures and distribution in the Mediterranean, see MAPAMED
[26] Originally named the Ligurian Sea Sanctuary (Hoyt 2011)
[27] The Principality of Monaco is the only signing party with a marine area outside the European Union and which is considered high seas

Principality of Monaco[28] Pelagos has been said to have been created not only in the interest of these nations but also for the Mediterranean at large, at the time, acting as the voice of the high seas (Notarbartolo di Sciara & Agardy, 2016). As such, the Pelagos represents a pioneer for the creation of a pelagic protected area in the high seas (Notarbartolo di Sciara et al., 2008). Notably, the Pelagos Sanctuary represents the only SPAMI of transboundary character created with the aim to provide a sanctuary for marine mammals. The second largest SPAMI is the Corredor de Migración de Cetáceos del Mediterráneo (46,614 km^2) covering areas between the Balearic Islands and the Spanish mainland.

Map 3

Pelagos Sanctuary for Marine Mammals



Note. Area indicating the geographic space of the Pelagos Sanctuary for Marine Mammals. Source: Base Map Google Satellite and ESRI National Geographic. Author`s elaboration with QGIS

A SPAMI encompasses multiple national boundaries, a diverse range of human activities exerting pressures on the marine ecosystem, and multi-actor conservation efforts for migratory species, specifically cetaceans, which poses complex governance challenges. Among the activities, whale watching represents one activity of particular

[28] The Principality of Monaco remains a sovereign country with permanent relations to the EU and forming part of the EU customs territory

interest to this study, in part due to its recognized growth and its direct impact on and interaction with cetaceans. Whale watching is a commercial activity and form of wildlife tourism which has been documented for its increased interest and establishing its status in the past 15 years in the Pelagos (Tepsich et al., 2020).

The Pelagos is managed at multiple scales following a combination of complex regulatory mechanisms. The Pelagos Secretariat approved the Management plan and action plan 2022-2027 and the work plan 2022-2023 recently published its programmatic documents constituting the Pelagos Agreement Management Plan and Action Plan (2022-2027). The Management Plan indicates four key actions set out for the timeframe i.e. 1. cooperation; 2. communication and training; 3. cohabitation between human beings and cetaceans, and 4. governance. Furthermore, the Pelagos is described as a marine protected area based on a multilateral environmental agreement applicable to a specific geographical area ((Pelagos Agreement on the Creation of a Sanctuary for Marine Mammals in the Mediterranean Sea 2021, p.2). The management plan indicates that the guiding measures are adopted in line with those by ACCOBAMS and the Barcelona convention (ibid, p.2). The governance model is described as one guided by a **trilateral governance tool** as defined through the governance by all three countries, France, Italy, and Monaco. The Pelagos agreement has furthermore been argued to be a pioneer in MSP in the context of conservation of marine mammals and their habitats (ibid, p.3). The ACCOBAMS[29] area, while wider in geographical scope, also constitutes the Pelagos. Within the frame of ACCOBAMS, signing parties are bound by the ACCOBAMS treaty. ACCOBAMS is further linked to the Convention on Migratory Species (CMS) and United Nations Environment Programme (UNEP). Both the Pelagos and the ACCOBAMS area are further guided and influenced by the policy frameworks of the EU specifically in the implementation of projects which follow the guidelines of the Habitat Directive for instance, Nature Conservation, Natura 2000 networks and the Biodiversity Strategy for 2030, which presently acts as the main policy document of the EU for nature protection and conservation. Finally, the binding measures are established in the Pelagos and include

[29] While ACCOBAMS represents the Agreement on the Conservation of Cetaceans of the Black Sea, Mediterranean Sea, and contiguous Atlantic area (ACCOBAMS), ASCOBANS is the Agreement on the Conservation of Small Cetaceans of the Baltic, Northeast Atlantic, Irish and North Seas

that all marine mammals are protected by laws of the Parties to the Agreement, a ban on driftnets, motorboat racing is regulated or prohibited, obligation of anti-collisions systems (France), and the prohibition of intentional disturbance (i.e. approaches of individuals to less than 100 meters is considered an intentional disturbance (France). Soft law measures include the Pelagos Partnership Charter, Pelagos Ambassadors, Code of Good Conduct, and others (Favilli 2022, p.13).

THE ARCTIC - I C E L A N D
PART I

2021

5.1 Values and Visions for Marine and Coastal Planning for Húsavík and Skjálfandi Bay, Iceland

This section informs about issues pertinent to marine and coastal planning processes in Northeast Iceland. The research was performed in the *ex-ante* stage[30] of the implementation of marine and coastal planning and was guided by the research question: *which are the values of local actors that should be included in future marine and coastal planning?* The findings inform about stakeholder`s values, priorities, and their descriptions of a context-relevant suite of procedural, substantive and ecosystem-service-related values identified to be of priority among local stakeholders.

5.1.1 Procedural Values

The procedural dimension highlights findings in relation to issues of inclusion, effectiveness, and fairness to shed light on *how what is valued is determined. Inclusion in decision-making* was found to be a of high value for all interviewees which was approached by whale watching guides primarily from the point of view of their professional roles while other interviewees in sciences and tourism also discussed their inclusion from other points of view. An overarching finding suggested that the scale of inclusion of all interviewees in wider local, regional, or national decisions is limited, non-existent or not mentioned, yet interviewees express the will to participate and understand it as a right.

Regarding the possibilities of being included in local and regional political decisions, for an interviewee in the education sector, inclusion was understood on the local level as possible given the context of a small town where less barriers, due to population size, for participation, exist "especially in our small town, when you have some opinion, then you can be heard" (I7). While it is echoed that inclusion in decision-making is perceived to be more possible, some barriers continue to exist. The interviewee specifically points to the difficulties due to perceived habits and the outdated thinking guiding decision-making. On the other hand, given the size of the

[30] *Ex-ante* is here used to refer to the stage before a marine plan has been established. The timing of the research was shaped by the case study management context of legislative developments for marine planning as observed in 2021 and 2022 and thus serves the knowledge production stage of assessment and participatory processes prior to implementation of marine and coastal planning measures

nation and community, at times it is perceived that engaging in decision-making is easier. However, there remain challenges specifically the interviewee perceives barriers in the form of resistance to change and conservatism regarding new ideas “to a certain extent, it seems easier here in Iceland (...) because you don't drown in the masses. You have fewer people, and it seems like it's more acknowledged or more what each and single each and every one is doing and how he is doing it. It is easier to be heard here but people here are at the same time very opinionated (...) in certain ways very conservative (...) It would be nice to be more included (...)” (I3).

Among other interviewees, the value was also interpreted in terms of making one`s voice heard and freedom of expression. For the scientists, inclusion in decision-making is understood as the ability to express their position freely through publications where no barriers were noted, while interviewees working in the whale watching sector understand inclusion in decision-making in terms of their role performed during whale watching tours. These interviewees value their role in whale watching tours where they can impart knowledge about marine mammals and the environment yet there remain challenges when it comes to engaging in political fora “when I'm standing there with my microphone and telling the people about things, then my knowledge and opinions are heard” (I4). When prompting the same interviewee about wider decisions, they express that at the higher scale of governance, there remain barriers to participation “That's not so easy, maybe because I'm not sure if it would be heard, because usually decisions are made by big politics.” (I4). This indicates a barrier in participation, specifically regarding decisions about the creation of industries and businesses which may impact the ecosystem negatively “I don't think that there were many other opinions heard about it. They were just focused on doing this. And people didn't really listen maybe to people that were saying, like, maybe it's a bad influence on the ecosystem here “ (I4).

Given the interpretation of inclusion in decision-making of whale watching guides, the value of *climate action* emerged in relation wherein interviewees in the whale watching industry further point to their potentially positive roles and responsibility in whale watching tours “when we talk on the boats for example, when we talk about, I don't know, threats for the ocean. I mean, if you can manage to maybe convince a few

people not to, for example, not to buy whale meat or not to use lots of plastic bags or not to have to change a bit their behavior, then it's of course something nice." (I4). Another interviewee in the whale watching industry echoes this by pointing to their power in educating people about climate issues "I think that I have a lot of power, when it comes to educating people, because of my role" (I5). On the other hand, there is also frustration about the lack of action thus far "(...) how I perceive it is that action should be taken or should have been taken a long time ago, and nothing is happening, and it's just being talked about and all the measures, they will, eventually, if they come, they will be too late." (I3)

Moreover, *women`s involvement* is linked to inclusion while focusing on the gender roles and how these are impacted by current structures. In the case of fisheries for instance. Regarding issues of women`s involvement in marine planning and marine related activities, interviewees highlight the value of equality while pointing to the imbalanced representation across sectors with whale watching guides, sciences and the educational sector represented mainly by women while captains in whale watching, and fisheries are occupied in majority by men. Two interviewees, one from the sciences and one from the whale watching industry support equality across all sectors *"*both women's involvement, and men's involvement is important." (I1). In whale watching specifically women`s prominent role is highlighted "women they take an important role in whale watching" (I5). While there may exist barriers for women to work in Icelandic fisheries, which are perceived as male-dominated and perhaps still following traditional ways of thinking "Maybe people are still a bit traditional, let's say but it is as important, but maybe not so easy to achieve" (I4), another interviewee in whale watching also points to the physical demands of the job which may have created barriers for women`s "they are also very physically demanding jobs like muscularly speaking." (I6). On the other hand, while fishing continues to be perceived as a male-dominated sector, as evidenced by for instance the lack of female captains, some interviewees also perceive that women are not interested in this sector "fishing and fishermen ship is still a very male thing even in Iceland (...) it would be nice if women would get more involved. At the same time. I don't think there is an interest otherwise there would be. I think here, women clearly have the chance to be more involved, but they have no interest." (I3)

Access to Marine Space and Resources

This value emerged as a top value for stakeholders in the marine mammal sciences and whale watching industry who both require the right to access to perform their respective work, yet access was indicated as easy to achieve which suggests there are no conflicts with the existing industries, such as fishing, in the harbor space. Beyond access to the immediate marine space, a scientist in the natural sciences pointed to the relevance of access to coastal areas to perform their research "we need of course, to access the coast for monitoring." (I6) which indicates the need for integrated management of both the coastal and marine space. Attending to the resource component linked to access to marine space, it was less addressed compared to access, it was found that access is also an issue of dependence given the activities of tourism at sea as well as the import/export of goods "we're dependent on the sea for all of the foods that we get from there. In Húsavík, I mean, it's also our biggest tourist industry." (I1). This finding further confirms another dimension to consider in MSP. While the marine space is the area of focus, multiple activities are closely connected to those on land.

Interviewees did not enunciate challenges in accessing marine resources and indicated that it is easy to achieve, given access to transport such as boats "it's also pretty easy to fulfill or to achieve. I just need to take a boat and go out at sea." (I4). Concerning access to marine space, conflict-free space was mentioned by some interviewees who highlighted the importance of cooperation and the management of different interests such as between fishermen and whale watching operators. Since these sectors have different interests, including tourism and fishing, these interests need to be gauged for a conflict-free space. However, there is optimism that in the case of Skjálfandi Bay, it is easy to achieve thus indicating that the local context and conditions can facilitate the coexistence of diverse interests "that is definitely important, because everybody out there has different interests, of course, like fisherman, for example, have different interests and maybe a boat full of tourists or so it's important that you get along, of course, yeah. Or maybe even different boat companies or whatever. So, I think it's, it's pretty important but maybe also quite easy to achieve, I would say, at least here in this bay." (I4)

Family and the Next Generation

Another procedural value is that of *Family and the Next Generation* which was defined by some interviewees with aspects of education, such as teaching, attachment, and knowledge about the ocean. Interviewees agreed that education is essential to inspire respect for the oceans and to further support understanding of the ocean "You would really need to teach the new generations how to respect the oceans (...)." (I5). This value was further framed in the discussion of protection and in supporting sustainable resource uses. An interviewee in the tourism industry expressed the need for education about sustainable resource management and the potential of education to support the protection of the bay. While barriers continue to exist across sectors, the interviewee contends that it is very important to learn how to balance resource needs with conservation and protection efforts "it's important to just educate people just so that we can, like move closer to having the bay protected. (...) just education about sustainable resource management (...) I think that's probably the most important part (...) to learn how to we can sustainably take from the ocean without harming it too much." (I1).

The interviewee working in the education sector further expresses that education could positively inspire students to develop an attachment to the area rather than migrate, think critically, and support their ability for expression "I think of the next generation. And that's important that they want to stay here, and they want to be critical and be able to (...) tell what they feel and what they want" (I7). The ocean is furthermore valued for future generations given its historical and cultural significance for the coastal community drawing attention to the multiple relations to the ocean, including an association to dangers. The ocean has been perceived as a place of tragedy and danger for fishermen in small boats who would have to face the forces of nature. As such, the ocean is seen both as a place valued for the coastal community and at the same time as one to approach with awareness of historical associations *"*of course it is important for future generations like everything else, and of course people have lived off the ocean for centuries so it should be highly important to them and also as important for it to stay healthy but also people have, what i found out, a lot of people are afraid of the oceans because in the past that, of course, many fishermen died out

there, they only had small boats, the ocean can be pretty fierce so the ocean is often connected with all kinds of tragedy" (I3).

Support of Local Businesses

All interviewees agree on the importance of supporting local businesses and the majority are directly at stake and dependent on the existence of these businesses, most of which emerged with and are linked to whale watching. The economy of Húsavík has undergone various changes over time in its business landscape reflecting the evolution of the town from a fishing to a whale watching-driven economy. Various of these small-scale businesses, such as guest houses, boat companies, restaurants and others supply to the tourism and local clientele "it's important for the economy of Húsavík, I would say, like, all these little, let's say, guest houses or boat companies or restaurants or whatever"(I4). However, interviewees also indicated that the options are limited locally, especially when it comes to the purchase of produce prompting some to go to the nearest town of Akureyri to find products "Yeah, there are many in Húsavík that drive to Akureyri to do their shopping or whatnot, I only go there when I know I can't get it here" (I3).

5.1.2 Substantive Values

Food Security

The substantive values focus on the content and nature of the values guided by the question *what is valued.* According to all interviewees, food is a basic and of essential value. While food can generally be accessed in supermarkets, some interviewees express limitations in their quality and variety. Interviewees furthermore express a perceived dependence on the import of goods and specifically address the lack of access to fresh produce. In response, several interviewees expressed an interest in producing more locally and raised the issue of innovating and using energy sources strategically to enable local food production "because we're an island, we're really, really dependent on everything being brought to us. So, if we could find a way to produce more here locally (...) I think it should be kind of easy to achieve, but we don't we're not really there yet" (I1).

To improve food security issues and thereby human security, the interviewee continues that good behaviors would include maintenance of sustainable fisheries, local meat production and regulations (for instance, for sheep), and empowering more local initiatives in Greenhouses drawing on the wealth of energy sources available "they could use the hydro, like the geothermal heat to have a number of greenhouses for vegetables" (I6). The relevance of producing food locally is echoed by another interviewee "we should focus more on making as much food locally as possible" (I6). This value indicates an interest in investment opportunities in local food production, especially highlighted for fresh produce. Interviewees perceive a dependence on external markets for food import and indicated a low quality in available fresh produce in local supermarkets which requires them to travel for food purchases of higher quality.

One of the most emphasized values is that of *healthy diverse ecosystems* which is understood as essential for the marine ecosystem of the bay "given that everything evolves from the bay so having a healthy diverse ecosystem is kind of number one." (I6). The maintenance of habitats for whales and birds is particularly highlighted. A healthy diverse ecosystem is also understood as something that can be self-sustained and ought to be supported by regulating resource extraction, fishing, and pollution. Yet there remain concerns about emerging industries specifically the sea-weed processing also referred to as kelp factory[31] "It's important for the bay just to keep it alive, to keep all of the whales and everything that are here in the area for the future (...) now they're talking about building this kelp factory" (I1).

Several interviewees also referred to risks and challenges for achieving a healthy diverse ecosystem and its resilience including concerns about climate change, managing the various threats to ecosystems, and the complexities involved in finding solutions for the conservation and mitigation of these challenges. An interviewee voiced concern for the impacts of climate change on the distribution of species and vegetation "Ecosystems are changing everywhere, you can already see that the vegetation that the species are changing, that the distribution changes" (I3). Moreover,

[31] Seaweed processing in the news "Planning to process seaweed in Húsavík" (*Planning to Process Seaweed in Húsavík*, n.d.) as well as oppositions to the creation " Opposition to kelp processing in Húsavík harbor area" (Adamsdóttir, 2022) in RÚV English

while recognizing the importance of a healthy ecosystem including the maintenance of marine life including whales and birds, there are anthropogenic challenges such as pollution and ship traffic which pose various challenges to be mitigated “healthy, diverse ecosystem is very important, especially when we think about this bay here as an ecosystem. I mean, we want to have the whales and the birds and everything working really well. So, it's very important, I think, but it's maybe not easy to achieve. Because there are many threats, of course, these days for the ecosystem like pollution, fisheries, ship traffic” (I4)

To achieve a healthy diverse ecosystem, another interviewee in the sciences interprets a healthy diverse ecosystem as self-sustaining which requires respecting the limits of the ecosystem through regulations in fishing, pollution, and resource extraction. They point to the political forces that control these processes

> “It's something that's being like self-sustained and if you look at the fisherman and all that, that they're not taking more than the ecosystem is creating for itself and there's no like, pollution or things like that so that the animals manage with what they have (...) of course, it's politics and so on.” (I6).

Notably, in the conversations about values, additional data emerged shedding insight into knowledge gaps to be addressed for improved management actions. An interviewee speaking from the perspective of the sciences points to the knowledge gaps that remain to effectively assess impacts on the ecosystem which include a need for data on the influence of the river/freshwater systems as well as the quantity of food for cetaceans indicating once more the need for research to take a holistic ecosystem perspective integrating sources influencing the ocean **“**the links in the ecosystem (...) We don't have enough research on that. Like the relationship with the river (...) then plankton bloom and how much food is actually available for the whales” (I2). Another knowledge gap exists regarding the impact of kelp harvesting on the ecosystem which requires further scientific evidence “We don't know how the kelp harvesting would impact the whole ecosystem.” (I2). In the discussion about climate action, on the other hand, another scientist points to the lack of knowledge about the climate change impacts on the ocean “it’s important to address climate change (...) our focus is on

Whales and the area they live in. And I think a lot of people maybe don't realize how climate change is affecting the ocean." (I1)

Physical and Mental Health

The findings indicate that interviewees recognize and value the benefits of their work environment on their well-being and health, particularly in marine and coastal settings. Several interviewees emphasize the positive impact of being near and working in the ocean, surrounded by mountain ranges. Some mentioned specifically the fulfillment derived from working with whales. The interviews reflect a positive attitude towards this environment, noting that it is easy to achieve both physical and mental health. The quote highlights that being in this place makes it easier to maintain health and happiness. The speaker associates this environment with childhood dreams and enjoyable daily activities, underscoring the joy and satisfaction from the supportive working atmosphere. The quote emphasizes the significance of health, both physical and mental, in life

> "makes me especially mentally, very happy, I would say to be here, I mean, going out here, seeing or doing what you wanted to do as a kid every day is very nice of course. We have a great working atmosphere, it's great to work with people every day, with whales and everything. So that's quite easy to achieve, I think. Physical health is also easy" (I4)

Cultural Identity

The findings on cultural identity may be seen considering most interviewees are foreigners who have yet been returning to Húsavík for many years and some have remained. While for some Húsavík has become a second home and highly valued "I mean, the value of this place is very, very high. For me, it's basically my second home, I would say." (I4), for others a sense of being an outsider persists "I came back. But at the same time, I'm still very much of an outsider. So, I don't have, I mean, I don't know, that's kind of hard to answer." (I3)

Income Security

Most interviewees are dependent on the success of the tourism industry on the basis of income, the arrival of tourists and their use of services, and the continuity of scientific projects within the shared space. According to findings, all can achieve income security with ease given the relative stability of these industries. At the same time, results indicated that income security is linked to the existence of these sectors in Húsavík, suggesting a vulnerability and reliance on external economic factors for their security. The Covid-19 endemic for instance was mentioned as a time of challenge given its halt on tourism which affected their income negatively "this is my main job and I think, yeah, I mean, of course, it's kind of easy to achieve. But I'm also dependent, of course, a bit on the tourism, for example, last year with the Covid situation my income was also not the best." (I4)

5.1.3 Ecosystem-Services Related Values

Economic Development

This section documents the values placed on ecosystem services guided by the inquiry into perceptions of *values in ecosystem-services*. Several concerns were raised regarding economic development. These were principally addressed in the context of on-land developments on the coast. Interviewees would value investment in and the creation of small and diverse businesses over large industries. While this move may create fewer jobs, it is perceived to contribute better to the creation of a healthy community. Interviewees do recognize the need for job opportunities, especially given that whale watching, and tourism are primarily active on a seasonal basis yet confirm that economic development requires attending to developing a healthy community based on an agenda that supports sustainable growth, small local businesses, and the innovation of existing sectors to minimize impact on the ecosystem. Yet to achieve this envisioned development, one interviewee expresses that conflict will arise which will require decisions that evaluate the trade-offs. Economic development also means progress, innovation, and the creation of businesses

> "maybe the economic development is kind of healthy, like that they are, yeah, as the name says, developing basically, like not that they are maybe going

backward, but that they always, yeah, finding new, new ways of doing things, or maybe also that there are new businesses opening up" (I4)

Another interviewee in the tourism industry points to the need for a shift in mentality which critically considers the trajectory of growth which departs from the growth agenda of the economies globally based on an agenda of "more growth" rather towards a life of stability

> "think of the economy then it means the economy has to grow the way the world thinks today, and growing economy means you always have to keep using more and growing more (...) as long as people don't change their mindset, into, like, oh maybe growing is not necessarily always the best, but trying to just maintain a stable life, that would be more important." (I6)

Beauty and Inspiration

Interviewees find beauty and inspiration easily in the environment of Húsavík. While not the most important to the majority, inspiration is valued for the ideas and learning it inspires, thus contributing to personal growth and development. Interviewees are particularly drawn to the ocean and mountains surrounding Skjálfandi Bay and draw attention to the dynamism of the land and seascape which contribute to the meditative and reflective experience of nature. There is a strong appreciation of the environment as evidenced in the choice of words such as "amazing" and "best" as used by the following interviewee "The bay is amazing with these mountains across and whatnot. I often just sit there and just look at them. Because they're never the same. And it is one of the best views I know." (I3)

Recreational Activities

One of the value cards presented was that of *Recreational Activities* interested in learning about the definitions of interviewees in relation to aspects including flourishing, happiness, and wellbeing. Interviewees indicated that it is easy to take part in recreational activities in the coastal community of Húsavík. However, when these take place at sea, it was pointed out that they should not conflict with activities such as whale watching. Activities such as hunting were also highlighted but it was

expressed that these follow rules usually. Overall, the recreational activities mentioned ranged from taking a simple walk on the beach, hiking, swimming, sailing, and kayaking and are easy to achieve, contributing to the physical and mental health of interviewees

> "That's pretty easy. I mean, you just take a nice walk on the beach and you're happy (reading card). Sometimes I go with a friend and another boat, sometimes it was swimming or your guess I would say as important also for physical and mental health, I would say and it's probably also quite easy to achieve here." (I4)

5.1.4 The Tourism Transition

Given the profile of interviewees and the primary role of the tourism sector in the case study, the sector was embedded and discussed in connection to several values including beauty & inspiration, a cultural ecosystem service, as well as income security, and a healthy ecosystem, both substantive values. Tourism is a sector that was positively perceived by all interviewees and most interviewees have a direct stake and benefit in this sector`s success. Yet benefits are wide-ranging, and tourism is valued for the creation of services and employment and is perceived as a sector of opportunities. Interviewees expressed that this sector is dependent on the health of the bay and ecosystem, as well as the preservation of landscapes and the environment which contribute not only to the health of the ecosystem at large but also to the beauty that attracts tourism. Interview data indicated a dependence on tourism for income security especially for whale watching guides. In turn, the success of tourism is indicated as dependent on a healthy diverse ecosystem and the maintenance of biodiversity further indicating the interconnectedness of values

> "having the whales and the animals here is the most important thing for this place (...) without the whale watching or without the tourists here, all these restaurants and guest houses and swimming pools and everything would not exist (...) the whole place basically depends also a bit on if the Bay Area out here is healthy and the animals are here". (I4).

Another interviewee in the scientific sector, addressing the value card on beauty and inspiration, further contends that the preserved landscape is important to maintain for tourists adding to its pristine allure and indicating an awareness of the value of nature for tourism. The interviewee defines beauty as preserved lands and landscapes which should be protected from environmental damage

> "when I think about beauty, I was just thinking about like, preserved lands, landscape, that kind of thing which for now, is very good. And doing not too much damage on the environment (...) especially from a touristic point of view " (I6).

5.1.5 Concerns and Visions for the Future of the Bay

In addition to the findings on values, several interviewees indicated how they would like to see the marine space develop. To set the scene for the mobilization of values and knowledge into marine planning processes, the following section offers a contextual overview as informed through both the value pile sorting method and the small-scale questionnaire. Several perspectives on the forms of marine protection/regulation emerged (see Table 9) with a consensus that some form of governance of the marine space should take place.[32]

[32] It was noted, and it may in part be explained by matters of language and cultural differences, yet also as an identified knowledge gap, that there existed several unknowns about the meanings of measures of terminology such as MPAs, also suggested by the interchangeable uses during interviews. Other terms used were national park and sanctuary which suggests that there is lack of knowledge about the actual implications and binding measures

Table 9

Measures and Definitions for Marine and Land-based Activities

Measures	**Definition**
Maintaining a whaling-free area	Regulating that the area remains free of whale-hunting activities at sea
Pollution and waste disposal regulations	Related to both land and sea activities to ensure correct waste management
Reducing noise pollution	Related for instance to marine traffic which causes underwater noise which can conflict and affect behavioral (i.e. orientation and communication) of cetaceans and other marine life
Cargo and cruise shipping limitations	Particularly relevant for the limited space in the harbor and traffic and may become of greater concern with an increase in the quantity and frequency and expansion of cruise shipping[33]
Responsible whale watching / voluntary code of conduct	Regulating and monitoring whale watching tours and operations which is currently performed based on a voluntary code of conduct (see IceWhale Code of Conduct)
Kelp / seaweed harvesting regulations	Mentioned in the context of news about the potential introduction of a new industry which caused some concern about the implications on space and impact on the marine ecosystem
Environment-friendly vessels	May include the type and energy used for vessels at sea (for instance, powered by wind or electric engines)
Commercial fishing	No specific regulation or measure mentioned directly yet included concerns about impacts of bottom trawling

Note. The table summarizes the main concerns and potential measures suggested by interviewees, both for land and sea-based activities.

[33] Echoed in JUSTNORTH Policy Brief 4 - *The Planning of Arctic Landscapes and Seascapes and Its Impact on Sustainability* (p.6).

Findings indicated a need for regulations of industries and marine traffic given the perceived direct negative impact on the ocean and particularly for cetaceans, including on their ability to navigate in noise polluted environments “that's mostly just regulations (...) you have to put in some rules on how you can go about in the bay, what you can do there, what kind of industry is allowed there” (I1). Marine traffic specifically was addressed in terms of concern about the increasing number of vessels simultaneously out at sea which could negatively impact marine mammals through increased noise pollution, representing one of the anthropogenic impacts on marine mammal orientation “the marine traffic, it will be many more cargo ships or cruise ships (...) depending on the number coming into the bay, then maybe that would have to be regulated more in terms of the noise pollution.” (I2). The interviewee perceives and anticipates an increase in ship traffic and urges for regulatory mechanisms to manage their arrival to Skjálfandi Bay.

Finally, considering the status in the bay, a scientist expresses their concern for whales and the ecosystem highlighting the ban on whaling at the time of their interview and suggesting their commitment to the protection of whales and their ability to navigate the oceans without disruption induced by activities such a ship traffic and consequent noise pollution. They indicate an environmental and ethical stance from a personal point of view “Whaling is already banned (...) that is one thing (...) for me, it's mostly for the whales and the ecosystem, for the protection that I am mostly into the whales then the only other thing is with the noise pollution (...)” (I2). The same interviewee further supports drawing on EU recommendations for protection as one way of continuing marine planning suggesting that the EU may have regulations in place that can serve as a template for guiding governance in Húsavík “Like maybe following the EU. They already have recommendations for that.” (I2). Finally, the voluntary code of conduct as developed and signed in 2015 (IceWhale, n.d.) was mentioned as one of the few mechanisms in place to guide approaches to marine mammals. According to the scientists, the current approach is not affecting the overall fitness of whales “it's going okay, as it is, I mean, also based on the, like, the science we have done that even though

they are there, the whales may get disturbed, but then it's not affecting their, their fitness, the overall fitness." (I2)

Nonetheless, recommendations were also expressed to improve the current operations with attention to balancing ecosystem impacts, economic needs and jobs, and conservation. Explicit recommendations included upgrading boats, minimizing fuel consumption, and transitioning to electric boats which may come with challenges for the jobs at sea

> "you want to minimize the impact that we're having, for example, on the bay, you can do it by just like positive evolution just you can like upgrade the boats you can like, minimize the consumption of fuel, or go electric. And you have to manage traffic. You have to put in some regulations, okay. Try, but if you do that, then maybe you will impact jobs. You will create a lot fewer jobs, but then again, maybe a healthier community, in a sense, if you maintain the resources you have without harming them (...)." (I1).

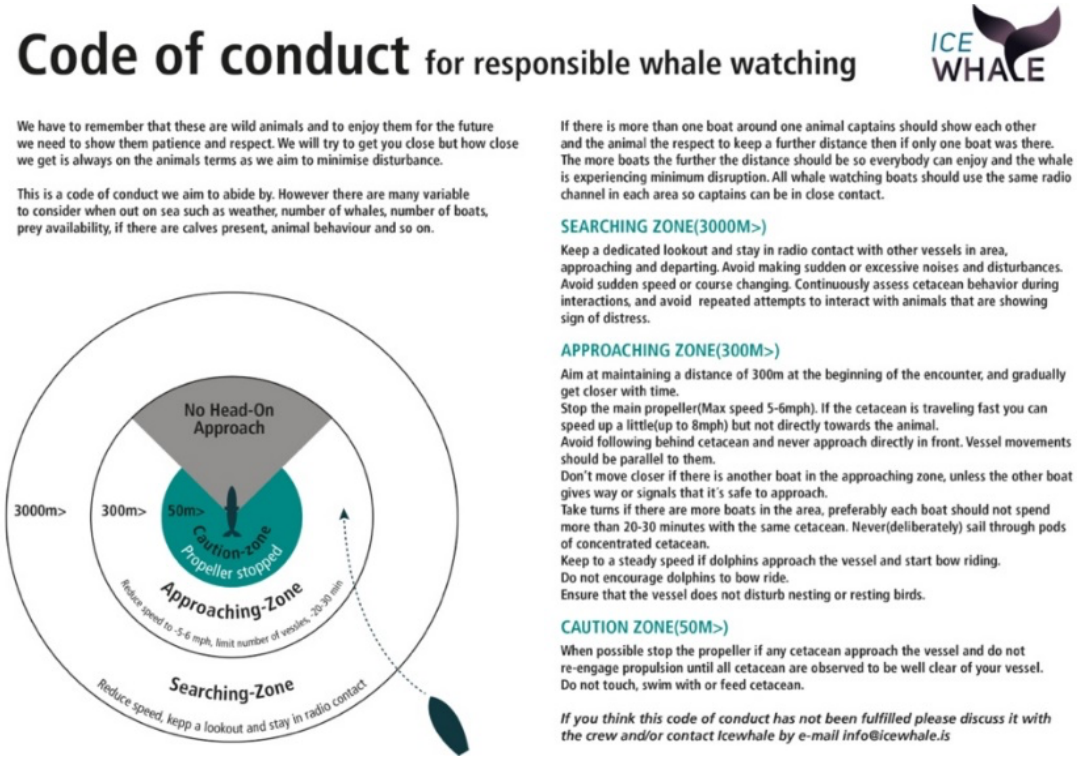
Area-based Management - The Spatial Dimension in Marine Planning

Interview data revealed a spatial interest in protecting the entire bay and brought to light a discussion about initiatives that could be implemented in the bay in the form of a Marine Protected Area or Hopespot indicating that this discussion is not new to the case study context. Based on the question *should there be a specific area to give attention to?* comments included paying attention to the movement of whales, their feeding and resting areas, as well as considering the wider ecosystem life such as seabirds and fish indicating an ecocentric concern for the well-being of marine life. Considering the regulations around these dynamics, whale watching has been regulated only through a voluntary code of conduct (see Image 7)[34] which was adopted in 2014 (Ice Whale, 2015). The resulting guideline indicates the approach toward whales and recommends behaviors while on a whale watching boat.

[34] Other institutions regulating conservation and whaling are the Icelandic Marine Research Institute (www. hafro.is) established in 1965. It is a government institute under the auspices of the Ministry of Fisheries, and the North Atlantic Marine Mammal Commission (NAMMCO) is an international body for cooperation on the conservation, management, and study of marine mammals in the North Atlantic (www.nammco.no)

Image 7

IceWhale Code of Conduct



Note. A voluntary code of conduct was developed by IceWhale indicating the distances, approach, and caution to be taken during whale-watching.
Source: Icewhale

The following interviewee discusses the role of the Húsavík Research Center and the NGO Ocean Missions in the creation of a marine protected area. In this process, they emphasize the need for inclusion of all relevant stakeholders affected by this decision, namely fisheries, whale watching, and farmers who maintain rights to the ocean decisions as well. Such an intervention would require *compromises* among the various stakeholders

> "the research center here, and Oceans Missions, they've been trying to work towards getting the bay protected. So, it will be considered a marine protected area (...) And you need to do it in agreement with the fisheries, with whale watching, with all the farmers that have lands close to the bank, because they have some claim to the water (...), not everybody is going to get what they want. So, you need to make some compromises." (I1)

To sum up, several risks and benefits are perceived for both society and the environment. Tourism was highlighted as an area for potential investment. The findings suggest that ocean literacy projects and sustainable resource management require further attention and would positively contribute to community development and participation. Additionally, education is perceived as contributing to the protection of the bay. In summary, it was found that interviewees in the tourism industry perceive barriers to participation in governance processes and point to outdated thinking and the role of political barriers, while others see it as a right to participate in decisions and regulations. Interviewees in the whale watching industry particularly value their position as whale watching guides. Their position allows them to share knowledge, to be heard, and likewise to potentially inspire ecosystem awareness in tourists. It was found that interviewees, most of whom depend on access to marine space specifically due to the location of their work in whale watching and marine sciences, can freely access this space. This value was also addressed as significant to maintain due to dependence on the tourism sector as well as for the import/export dynamics of food while details were not indicated for the latter.

Interview data revealed several areas of uncertainties including about the measures that will be implemented in the bay and the impacts of industries on marine life and the wider ecosystem. These knowledge gaps may on one hand be addressed better through targeted investments in scientific research, environmental impact assessments, collaborations with locally based institutions, as well as initiatives in education and public dissemination. In terms of substantive values, a healthy diverse ecosystem is deemed as the essential bay for various ecosystem functions and the presence of marine life, interviewees clearly expressed concern about emerging industries as well as climate change. They highlight the role of political processes and regulations to sustainably manage resource uses. On the other hand, interviewees working in the sciences recognize a need for continued scientific research that would better inform marine planning measures. These included knowledge requirements about kelp harvesting/seaweed processing, ecosystem linkages regarding freshwater influences on the oceanic system, and building a scientific base about climate change impacts on the ocean. In terms of ecosystem-related values, several concerns were expressed

regarding current economic development particularly regarding on-land and coastal developments bordering Skjálfandi Bay. Interviewees suggest small and local businesses contribute to a healthy community and are valued over big industries despite higher job creation rates in the latter. The findings that emerged indicate the challenges of trade-offs between economic development within the limits of environmental and ecosystem boundaries which may better be approached through an adaptive management approach that attends to the dynamic nature of marine ecosystems.

THE ARCTIC - I C E L A N D

PART I I

2022

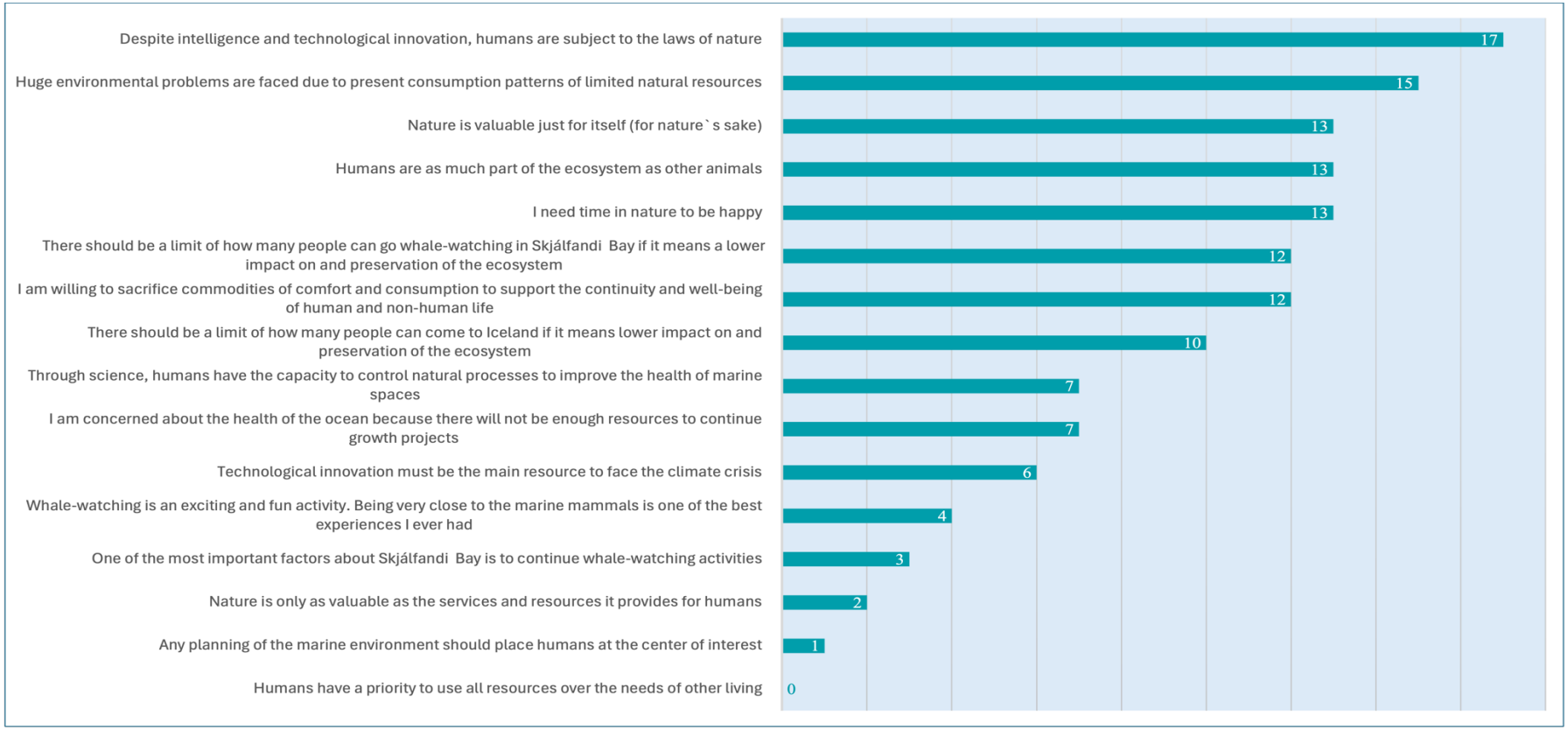
5.2 Ethical Orientations for Marine Tourism and Regulations

The findings in this section are informed by primary data collected during interviews with a cohort of international tourists in Húsavík in Northeastern Iceland during the month of July 2022. Their accounts shed insight into experiences on land and at sea, including encounters with marine wildlife and charismatic megafauna through whale watching. The results may advance the discussion of the potential of tourism as a driver of transformative change in human-environmental and human-wildlife relations with a focus on the marine realm. The central research question is: *what insights can be gathered about the values of international tourists for ethical tourism management?*

The discussion from hereon is guided by the results of the statements as elicited by method of selection exercise. **Figure 2** presents the responses organized in the order of (number of statements). Statements beginning with the most selected statement *Despite intelligence and technological innovation, humans are subject to the laws of nature*. The least ticked statement was *Any planning of the marine environment should place humans at the center of interest* and the statement that was not selected by an interviewee was *Humans have a priority to use all resources over the needs of other living*.

Figure 2

Statement Results



Note. Table shows the findings on the selection of statements as elaborated in Table 6 in *Section 3*

5.2.1 Exploring a Spectrum of Environmental Ethics

Considering the most selected statement, the findings indicate an ecocentric tendency among interviewees with 17 out of 21 selecting that *Despite intelligence and technological innovation, Humans are subject to the laws of nature humanity is subject to the laws of nature*, that is, humans may have developed technologically and in intelligence yet remain subject to the forces of nature which cannot be controlled. The cohort further agrees that present consumption patterns of limited natural resources are unsustainable and have contributed to the environmental challenges experienced. Also indicating an ecocentric tendency, 13 understand that *Nature is valuable for itself* thereby indicating an ecocentric tendency wherein the statement indicates a belief in the intrinsic value of nature. The cohort further understands humans' positions as interlinked with the wider ecosystem constituent of a variety of species. Towards the statement *Humans have a priority to use all resources over the needs of other living*, a statement which was not selected by any of the interviewees, indicating that all tourists did not view themselves as superior in their consumption needs to other living thus departing from an anthropocentric view. This statement was commented on by an interviewee positioning human in the second place along a hierarchy "We do not have more priority. I think we are in the second position here" (I17).

The results from the statements indicated a variety of motivations confirming a diverse profile within touristic[35] motivations to nature. Considering the national scale, it was found that interviewees are primarily motivated to travel to Iceland for its nature and specified features of nature. On the Húsavík scale, the most common motivation was found to be whale watching. Focusing on the town of Húsavík specifically, whale watching (including both whale watching and puffin tours) emerged as a significant pull factor. The third most common motivation is towards the country itself, including aspects of culture and society. Other less frequently mentioned motivations included personal stories and the fulfillment of personal challenges.

[35] Considering that tourists reflected a diversity in profiles and some may more suitably be called adventurers, travelers, or explorers

5.2.2 Motivations and Climate Change

All interviewees indicated an awareness of the Arctic`s position in climate change discussion. Several interviewees positioned the Arctic as an important place for observing the impacts indicating an awareness of a changing environment including aspects such as melting ice/melting glaciers "I think it is the place where you can check the impact because of the melting ice" (I6)

Among the challenges most concerning about climate change in the Arctic interviewees mentioned melting glaciers. However, these concerns were not limited to the Arctic. Interviewees also related their experiences to their homes including a concern for droughts (Spain, Portugal, Italy, and Poland), rise in temperatures, sea-level rise, longer summers, and tornadoes. Additionally, other challenges less mentioned included the loss of biodiversity and living species. On the other hand, some interviewees highlighted the interconnectedness of these challenges indicating an awareness of complex relations (for instance, "chain" and "the ocean itself") in the environment which would align with an ecocentric worldview "Everything is a big challenge. It is not easy to say but of course, the melting glacier is the first thing I think about, but I think everything is important. It is a chain, so everything counts." (I5)

The interrelation and systemic character of dynamics were also highlighted while the ocean was particularly positioned as a significant regulator in the Earth system "Everything is so related. It`s hard to pick what is the most important. I mean, I think our ocean because it provides so much for cooling, the life, I think just protection of ocean life and the ocean itself would be a primary thing." (I8). A follow-up question was posed to inquire about whether an awareness of climate change made the trip more urgent. The question "Was that a factor that made your trip more urgent?" generated a yes for 8, for 11 it was not, and 2 individuals did not have a response. For instance, one interviewee mentioned their visit to Diamond Beach, a black sand beach belonging to Breiðamerkursandur glacial plain located by Jökulsárlón glacier lagoon on the South Coast of Iceland "Partially, yeah, we definitely wanted to see Diamond Beach. We have been hearing about it through National Geographic and all those channels and we wanted to see it (...) we wanted to see that in person." (I2)

5.2.3 Relational Insights for the Ecocentrism/Anthropocentrism

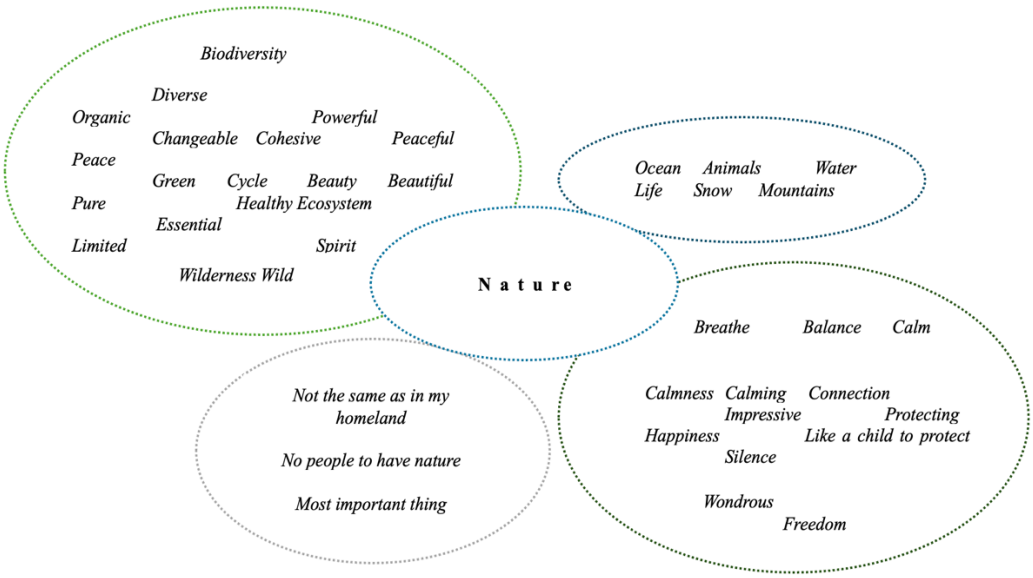
Following an overview of the data collected, I discuss the positions of tourists along the spectrum of environmental orientations by integrating findings generated from within multiple areas of the interview guide i.e. the terms indicated to define nature and perspectives expressed towards cetaceans, specifically whales. To begin, given its central role in the interview guide and conversation, it was deemed relevant to document how interviewees define nature which may indicate whether their viewpoints or mental models emphasize certain qualities over others, for instance, interconnectedness, intrinsic value, or human utility, and separation between humans and nature.

The collected definitions have been visualized (see Figure 3) by specific **features or constituents of nature** (ocean, water, animals), terms used to define characteristics (organic, changeable, beautiful), and **how it makes individuals feel** (balance, connection, calm), into that which nature constitutes **physically** (i.e. the ocean, snow mountains, animals), how nature makes one feel (breathe, connection, impressive), and those words which describe **nature`s being** (organic, diverse, beautiful). In the findings some interviewees gave **other responses** such as "not as in my homeland" through comparison, or "no people to have nature" by separation of humans from nature, the latter of which suggests that nature exists outside the human (anthropocentric perception). While defining nature, interviewees assigned value to nature and gave it meaning using adjectives or nouns. It was found that several terms were mentioned in terms of nouns and adjectives, for instance, "peace", "peaceful" "beauty" and "beautiful". Few interviewees preferred instead to express themselves in sentences. How interviewees define nature[36] informs not only about their relation, the position they take, and their perception, but also about the value they place on nature.

[36] See a complementary resource on defining nature, the IPBES (2022) report wherein nature can be defined as "living from, with, in, and as nature" (p.xvi)

Figure 3

Defining Nature



Note. The figure provides an overview of the various terms indicated by interviewees to define nature. The different circles, albeit not strictly divided, show features or constituents of nature, how it makes individuals feel, the physical characteristics, nature`s being, and other responses, all of which are connected to the definition of nature.

The definitions shed further relational insight on the ecocentrism / anthropocentrism discussion by elucidating where and how interviewees position themselves in relation to nature and whales. Regarding the connection to nature, several interviewees defined nature using terms which emphasize connectedness such as "*to be one with nature*" which connects to the statement *humans are as much part of the ecosystem as other animals,* thus indicating an ecocentric tendency. On the other hand, those who focused on the resources including the aesthetic pleasures such as "beautiful*"* suggest a perspective emphasizing the benefits for human enjoyment and life. Nonetheless, the aesthetic and emotional appreciation of nature and its impacts on humans such as peace and balance can also be considered ecocentric as they likewise may belong to an intrinsic appreciation. The following definition offered by one interviewee suggests a profound connection with nature as something that is perceived with respect due to its powerful

forces and the lack of human interference in the environment, which according to this interviewee, can be found in Iceland

> "Pure. Powerful. Limited. So, pure, I think there is nothing better than the natural environment, to be in it, amongst it and to not have any other influence around you, just to be one with nature, that`s why I love it really. Powerful, I think the oceans, if you think of ice caps, icebergs, the wind, and rain, it can be dangerous. Limited because it won`t always be there if we mistreat it, we have to look after it. That`s why Iceland is wonderful, it is everywhere." (I1).

Turning to the perceived role of interviewees towards nature, statements such as "limited because it won`t always be there is we mistreat it*"* indicate an awareness of human impacts on the environment and likewise the responsibility to care for nature. Other values assigned to nature such as "organic*"* and "interrelated wholes*"* may suggest an understanding of nature`s complexity and value beyond human utility while an anthropocentric view suggested by the measurement of nature`s value in relation to the human experience can be inferred from "not as in my homeland*"*.

Cetaceans, specifically whales, were identified as the **Northern Star** and key pull factor to Húsavík. Whale watching was identified as the main activity that interviewees would plan their stop-over for in Húsavík. Furthermore, while prompting interviewees to share the knowledge they gained about flora and fauna, it was found that whales retained a prominent position. Considering data based on the combined results inquiring about knowledge gathered about flora and fauna as well as what interested them in going whale watching in Skjálfandi Bay, the results suggest that interviewees were drawn to whales in part due to their perceived qualities. The *size of whales* emerged as a variable of fascination and respect, as highlighted by several interviewees (#I3, #I14, #I20) "I did not know the size of the whales and we saw, the large whales, the blue whales and you know we have the picture from the television or the documentary, and you have some respect for the largest mammal." (I20). This interviewee positions humans as part of the ecosystem, as a small component within the wider world rather than the "king" further suggesting an ecocentric view

> "I want to see these beautiful animals because they are so huge ... they are giant, I have never seen an animal of this size ... because they are so huge and I am so small, the nature tells you, you are not the king of the world. There is something bigger than you that lives on this planet, and this gives you a lesson." (114).

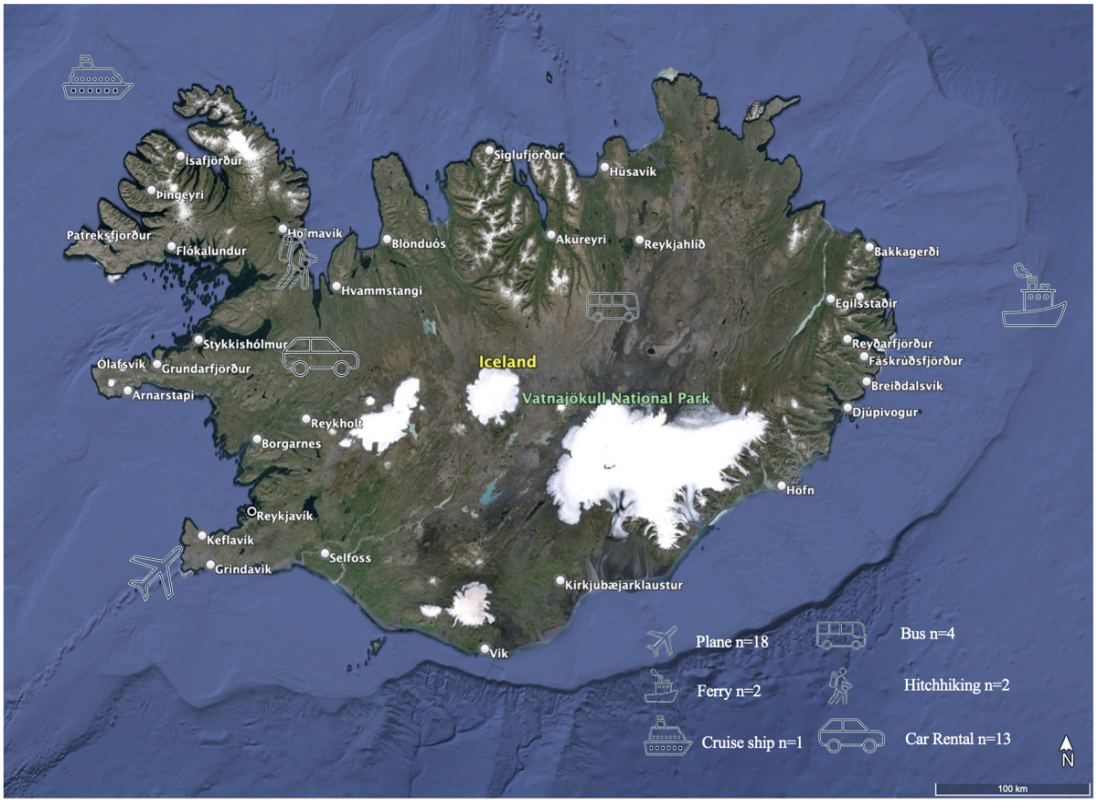
Yet, the quote may also be an example of anthropocentrism as, although indicating a perspective of humility and awe, the view still centers around the human experience of encountering a whale. Together these insights confirm that anthropocentrism and ecocentrism cannot be strictly delineated yet certain tendencies can be distinguished and provide a deeper understanding of interviewee`s values towards the natural world.

5.2.4 Transport: Critical Reflections on Mobility and Limits

Particularly in the case of Iceland, accessibility to natural areas has been identified as a key variable to be considered in tourism development and planning to contribute to sustainable development and competitiveness. The data informing about transportation choices contributes to behavioral insights by revealing whether, and how, tourists selected transportation to the island. Thereby, it may be possible to identify if individuals take responsibility for their choices. Data on modes of transportation (see Map 4) revealed that decisions for types of transportation were influenced by choices of accommodation such as camping, limited vacation time constraining their freedoms, and finances.

Map 4

Transport Choices



Note. The map provides an overview of interviewee`s mode of transportation to and within Iceland. The majority arrived by plane (18) and rented a car (13) to move within the island with the majority starting their journey in the capital, Reykjavík.

Source: Basemap Google Pro Earth Maps. Author`s elaboration.

Some interviewees also critically reflected on their travel indicating that they wanted to make their trip worth the emissions of traveling by plane “We take the plane anyway, but we think it cannot be a small visit, it has to be a long visit to take the plane.” (I4). Furthermore, choices for transportation inform about the inherent complications that come with visiting Iceland where options to reach the island are limited “Well, the plane because there is no other way and the car because the trip was organized this way, I had no other option” (I6).

The same interviewee continues by expressing their opinion about cruise ships. The interviewee believes it not to be a generous and fair tourism which gives back to the places visited

> "I think this kind of tourism is not fair for the places that people visit. They stop, all the passengers land, maybe they watch, they visit the most important sights, but they don't spend money on the places they visit because they have lunch inside the boat. Well, I think it is not a generous kind of tourism." (I6).

Another aspect linked to mobility awareness is that of whale watching tours which operate on a boat with multiple choices available. The findings indicate that interviewees reflected on their modes of mobility and explained the circumstances which influenced their choices. Other less frequently mentioned factors which influenced interviewees' choices were vacation time and available transport, other goals and needs, all situational factors which may have challenged their values. However, the type of boat, either a schooner or RIB boat, did not emerge as a significant variable. For some, choices were related to issues of seasickness or quantity of people on a boat. For instance, the RIB boat tours were chosen to help with sea sickness and to be on a boat with fewer people.

On the other hand, other interviewees preferred a sailing boat which they thought would help with sea sickness. Nonetheless, some interviewees were aware of the impact of boats on the ecosystem

> "Even if we go watching the whale, we go by boat, with the diesel and petrol, you can see how many boats a day - it is always the balance between the economic, and the traffic, and the work for the people and the environment... it is always searching for the balance of the debts for the economic and the nature" (I21).

Interviewees also questioned the sustainability of whale watching tours, for instance, considering their uses of Diesel as well as acoustic disturbance, indicating a heightened awareness regarding ecosystem impacts, as expressed by an interviewee "I see those tours

with two eyes: it`s good to do a tour like this but it is very touristy normally and I am not sure if those tours are that kind of eco-friendly as it should be. You need a lot of Diesel to travel around" (I17).

Tourists' perspectives on whale watching operations can offer context as to whether the cohort of tourists is concerned with impacts on the environment and marine megafauna which further contributes to positioning their human-environmental relations and environmental awareness. Taking a wider perspective first, interviewees perceived Iceland to be protective of its nature, based on their observations (#I12; I14) "Here I see, it is very wild, but it is cared for. They take an eye on nature because maybe it is the best thing this land has. I very much appreciate, and I want all the countries in the world to respect their nature." (I14)

Furthermore, tourists' views on limits were approached as informing about their environmental concerns and views on sustainable development. Respectively, the statements prompted thoughts about the restriction of human impacts on the marine ecosystem. This is explained in response to the statement "There should be a limit of how many people can go whale watching in Skjálfandi Bay if it means a lower impact on and preservation of the ecosystem", the issue of limits was introduced to understand whether tourists would respond to limiting tourism if threatening for the marine ecosystem. It was found that specifically, whales were the subject of concern when thinking about impacts on the ecosystem, as confirmed by one interviewee "From a tourist point of view and the people working here, yes, but I am more for the whales and their well-being." (I20).

12 interviewees agreed that there should be a limit on how many people can go whale watching in Skjálfandi Bay if it means a lower impact on and preservation of the ecosystem. The findings indicate that tourists who had gone whale watching were active observers and thinking about the environmental impacts of whale watching, including its impact on the environment and whales. Another statement using the terminology of limits "There should be a limit of how many people can come to Iceland if it means less impact on and preservation of the environment" was less selected by10 interviewees, however, tourists indicated an awareness of the need for regulations of tourism globally to reduce ecosystem impacts "I think tourism must be regulated, it can`t be massive but not here in

Iceland, in every country, because I think they would change, too many humans in one place always change the ecosystem." (I6)

Whale watching operators can gain insight into issues of praise and concern from interviewee`s feedback (see Table 10) which included critical reflections and observations on the operations of whale watching tours on the ecosystem and, as particularly highlighted, on whale`s well-being.

Table 10

Feedback After Whale Watching

Concerns	○ Polluting impact of boat emissions on the ecosystem ○ Well-being of whales when surrounded by numerous boats ○ Impact of boats on noise disturbance and whales` well-being ○ Impact of the proximity of boats on whale`s well-being ○ Impact of cruise ships
Satisfied	○ Tour is well-managed ○ Eco-friendly tour ○ Good engine management during approach ○ Respectful conduct towards marine mammals ○ Responsive and informative guides
Perceptions & Interests	○ Electric sailing boats better for the environment ○ Observed scarring on whales ○ Observed captain`s behavior while maneuvering ○ Interest in knowing about the change of whale population over the years

Note. The table summarizes interviewees´ concerns, feedback indicating satisfaction, and general perceptions and interests as found in the interviews. Satisfied customers also pointed to concerns.

To conclude, it was found that the two questions "Was there something you observed that should be better managed in whale watching in the bay?" and "Was there any other activity you perceived to be good or bad?" generated similar answers which informed the following areas organized along satisfied feedback, concerns and perceptions and general observations and interests. These findings indicate that interviewees are active observers of whale watching tours and attend to whether whale watching tours follow good conduct. Their concerns further suggest that the whale`s well-being is of significance to their experience. The results in the columns ***satisfied*** and ***concerned*** are related in the sense that concerns may be resolved through aspects mentioned to lead to outcomes of satisfaction, for instance, the concern "zodiac boat speed impact while approaching whales" is related to the "Respectful conduct towards marine mammals".

THE MEDITERRANEAN

The Pelagos Sanctuary for Marine Mammals

2022

5.3 Actor-Network Perspectives and Values: Transboundary Marine Governance for Marine Mammal Conservation

This case-study-based research explored the values of diverse stakeholders, including institutional, scientific, and business actors, invested in the geographic space of the Pelagos Sanctuary for Marine Mammals. The findings herein respond to the question: What are the values of institutional and business actors in charge of the activities and sustainable management in the marine space? The results shed light on areas identified as essential to the modus operandi, that is, the functioning and rationales, of the respective institutions and sectors for which interviewees work and represent. The following thematic areas emerged and have been formulated to further the discussion on the operations and challenges of large MPAs for marine mammals in the case of the Pelagos. The cross-cutting themes have been categorized into 1) Marine Conservation and Management, 2) Transboundary Cooperation and Coordination, 3) Data collection and research, 4) Education and Awareness 5) Sustainable Tourism Practices, 6) Policies, Governance and Challenges.

5.3.1 Marine Conservation and Management

The coordination of various management operations and structures and marine conservation was identified as a recurring theme and value in interviews. For instance, coordination was addressed in the context of existing protection and conservation measures, including nationally designated MPAs and Natura 2000 sites. One interviewee speaking from the institutional perspective expresses that the co-existence of various protection measures, designated on land and at sea thereby ought to be recognized and coordinated to foster good practices. As this interviewee indicates, coastal areas have been more prominently addressed while there is a need to attend to the land-sea continuum as well as to offshore areas where marine mammals move to implement good practices

> "we would like that every marine protected area or every national park will take into account the fact that they are in a very special and particular area. Even if most parts of them are characterized by a coastal area, sometimes they are just coastal, so the presence of marine mammals is not so common. But the idea is

to establish, collaborate with them, a new way to work all together and with the exchange of good practices" (IR2)

Considering the establishment time of the Pelagos before the introduction of MSP as a framework for managing the multiple uses at sea, an interviewee positions the Pelagos as a **precursor** to MSP offering background context to the establishment. The relationship to MSP is made explicit wherein the interview argues that the Pelagos can be a steppingstone for the coordination of activities in the Pelagos. While its focus is on Marine Mammals, it started an innovative mechanism to protect the marine environment which through MSP could be further extended to the management of wider ecosystem dynamics

"this is a precursor of maritime spatial planning (...) maritime spatial planning is considering the environment as a whole (...) for Pelagos, they considered only marine mammals but it's a very similar approach. And at that time, the maritime spatial planning didn't even exist in a formal form." (IR3)

Interviewees furthermore discuss that the Pelagos is a laboratory for international collaboration for conservation and management "I think there has been also a kind of experimental lab on how this international cooperation can work" (IR6). The perception of the Pelagos as a place of experimentation was echoed by another interviewee who perceives that the Pelagos could have the potential to prove a lesson for initiatives outside the sanctuary which may be replicable for other areas "it could be considered as a laboratory where some specific initiative can be initiated and then reproduced outside of the Pelagos Sanctuary." (IR1)

5.3.2 Transboundary Cooperation and Coordination

The integral need for **cooperation and coordinated management** across geographic scales, networks, and disciplines were identified as key areas across most interviews at the institutional and scientific scale. Professionals working at these scales highlight the role of cooperation in transboundary governance, given its salience in the case of migratory and mobile species. The following excerpts present some of the continued challenges as well as initiatives that have succeeded in the context of cooperation and

coordinated management in a transboundary management setting. Regarding challenges, the management of cetaceans and marine mammals was described as highly complex requiring stakeholder collaboration across scales. Besides cooperation being laid out formally as one of the key actions for the Pelagos Secretariat in the new management plan (p.9), the transboundary approach was also described as the basis and as a foundational pillar of the Pelagos agreement "the transboundary element as a basis, the origin of the agreement itself, I would say, it's the most important part." (IR2). Yet challenges remain in the management of the Pelagos transboundary mechanism and interview findings suggest a need for balancing the national and international approach in the implementation of actions for the Pelagos. **Collaboration** was communicated as essential for migratory species given their movement and life-stage cycles which extend beyond socially constructed national boundaries. International projects are indicated as integral to actualizing these collaborations "Because for these species, if they don't find ways to actually have international projects, it doesn't really make sense (...) so they must collaborate." (IR3).

Several interviewees refer to the role of cooperation emphasizing its role due to the migratory nature of cetaceans which requires transboundary and collaborative governance across scales and nations to enable efficient governance "that migratory species needed to have concerted frameworks, coordinated frameworks, to be more efficient" (IR1). Cooperation was furthermore emphasized in its role for bringing together multinational approaches which are urged to better integrate and harmonize initiatives to improve operations "the vision is to do it together. So, cooperation for research, cooperation for management in terms of countries harmonizing their different national approaches to have some coherent general protections or conservation plan." (IR3). Therein, collaboration was mentioned as a key aspect to facilitate the objectives of the Pelagos in the context of the complexities of the marine environment and marine mammals "For the collaboration part, this is a very important part for us because we know that the protection and the conservation of marine environment and marine mammals is such a complex issue." (IR2)

Another underlying motivation for further coordination and cooperation is due to the inherent **connectivity** of ecosystem dynamics. Despite remaining gaps in scientific

knowledge on the specific migratory routes of species, there is sufficient scientific data supporting evidence that species continue to move beyond national boundaries, further supporting the need for transboundary efforts in the wider marine environment which extends beyond the politically defined borders of the Mediterranean "We do not have a clear knowledge about the movement, but the species do not stop at Gibraltar." (IR1) In response, another interviewee points to the importance of extending areas of protection and governance mechanisms, including **migration corridors**, namely the Spanish migration corridor. Attending to these areas is deemed necessary as they represent holistic management and awareness of the various life-cycle stages of species, including their habitats and feeding areas. As the interviewee explains these efforts need to be implemented in line with the Habitat Directive

> "we need to protect these species in all the important sites (...) those two areas, the Pelagos Sanctuary and the Spanish migration corridors (...) we need to extend the protection for these species in all the range of where they spread but it is also something that the Habitat Directive asks for." (IR4)

Further elaborating on the need for connectivity, cetaceans were positioned in wider protection efforts. findings on the discussion of adopting an ecosystem perspective for the protection of marine mammals and the need to move beyond a fragmented perspective of the ecosystem. Several interviewees point to the wider ecosystem and biodiversity value and situate cetaceans and their relations to other species and areas, that is, biodiversity at large, to be protected, as one interviewee working at the institutional scale highlights "Pelagos was created not only for marine mammals, but their habitats, so it is for the biodiversity in general." (IR2). Another interviewee at the institutional scale points to the strategic position of cetaceans in the trophic chain, describing their position as an *umbrella species* that can serve to understand and guide the related ecosystem functions and protection. The role of cetaceans in the ecosystem is positioned as one at the top of the food chain with a greater impact on the ecosystem compared to other fish species. The argument presented therein is that the protection of cetaceans could contribute to maintaining the balance of the entire ecosystem."(...) protecting these species, which are at the top of the food chain, is

also a way to protect the whole ecosystem. So, these species could be considered as umbrella species first" (IR1).

5.3.3 Data Collection and Research

The following section informs about the discussion on the role of vessels in advancing scientific knowledge and understanding of marine life. It highlights the collaboration between scientists and whale watching operators to improve scientific data and the use of advanced technologies for parallel data storage. As echoed in the previous section addressing aspects of connectivity, the findings also indicate that spatial protection measures alone are not sufficient and contribute to mitigation strategies to further tackle the pressures induced by anthropogenic activities. Finally, limitations of current protection measures, including the need to make ecologically sound protection measures that match ecological knowledge and the challenge of protecting mobile species in large areas such as Pelagos. In response, data and field observations on both whale watching and research vessels indicate that scientists and whale watching operators collaborate closely to improve scientific databases on marine life as well through advanced technologies that allow for rapid registration. However, also other vessels have become more significant for advancing science. One project that has benefitted from the collaboration with vessels at sea is Life CONCEPTUS MARIS which lists its objectives as 1) filling the current lack of data on cetaceans, including fin whales and sperm whales which live and reproduce in the Mediterranean Sea, 2) to identify the most significant sites for the conservation of threatened species, 3) to develop a tool for effective conservation and risk factor mitigation measures, and 4) to further foster international cooperation (Life CONCEPTU MARIS). To enable these objectives, one strategy has been to collaborate with ferries which facilitate prolonged scientific inquiry out at sea throughout climatic conditions

> "we need to stay very in a very pelagic environment, very far from the coast for a very long time and during all the season to get the variability of these species (...) one idea was to use some vectors, some vessels that already stay at sea and that cross the Mediterranean Sea and the ocean quite often along the same route for a long time. And these are the ferries, and they are big enough to stay at sea

(...) also when the weather is not good to cross the sea also in bad weather condition and continually." (IR4).

For instance, the project Life CONCEPTU MARIS recognizes that spatial designation alone is not sufficient and contributes to mitigation strategies to further tackle the pressures induced by anthropogenic activities. While Natura 2000 sites are based on the 1979 Birds Directive and the 1992 Habitats Directive, the Life CONCEPTU MARIS project is one of the projects which responds to the Habitat Directive, specifically Article 11 on surveillance and Article 17 on a methodological approach, and finally, to contribute to the potential identification of Natura 2000 sites in pelagic environments. Elaborating on the outputs of Life CONCEPTU MARIS, in the following excerpt, an interviewee informs about the three primary tasks related to the conservation of certain species. The interviewee outlines three primary tasks essential for effective conservation efforts. The first task involves addressing Article 11, which emphasizes the need for a structured methodological approach to monitoring species surveillance. The second task pertains to Article 17, which focuses on developing a methodological framework for analyzing data and reporting on the conservation status of species. The third task involves identifying crucial areas for conservation, specifically aiming to establish Natura 2000 sites in pelagic environments. As the interviewee explains

"One is answering the Article 11 on the surveillance, setting a methodological approach for monitoring the surveillance of the species, the Article 17 the recording setting some methodological approach for analyzing this data and to report on the conservation status of the species and the third is identifying the important area for these species that need to be conserved and in which we can establish some Natura 2000 sites in the pelagic environment." (IR4)

The initiative of further identifying Natura 2000 sites in pelagic environments can be better understood in the context of existing sites which, according to interviewees, have been primarily allocated in coastal areas and limited to few species and habitats. According to the perspective of the following interviewee, the challenges of small-scale sites and their relevance for a variety of mobile species to be considered in the

Habitat Directive in the future "most of the thousand sites are tiny, they are really small (...) perhaps we should then reconsider how to treat different type of species which are more mobile and how to create space for them into the Habitat directive because the space is not there." (IR3). When prompting the same interviewee about the expertise of scientists who inform about these sites, the interviewee notes the challenge of data interpretation and the role and tasks of the scientists themselves in the process "They are just squares, huge squares in the middle of the sea (...) They are scientifically informed, but it depends on who are your scientists and what you ask them to do. And science can be used, unfortunately, data can be read in different ways" (IR3).

Considering, for instance, the specifics of the bottleneck dolphin species in the Pelagos, the following interviewee informs that an ecologically meaningful designation of a habitat would require a 60% coverage of their habitats. Given the bottlenose dolphin is more present in the continental shelf areas, it would be suitable to protect 60% of the continental shelf everywhere, including in corridors and pelagic areas that are being traversed by the species. While this may be feasible in theory, the interviewee recognizes the challenges of practical implementation, further shedding insight into the challenges and complexities of protecting such species effectively "if you want an area to have an ecological meaning, you should basically cover 60% of their habitats, but 60% of their habitats within Pelagos, it would mean 60% of Pelagos" (IR3).

5.3.4 Education and Awareness

Looking towards the future, several interviewees shared their perception of changes observed in civil society, at the level of decision-making, and in institutions. The findings discussed in this section suggest a growing awareness and recognition of anthropogenic impacts and related uncertainties. One interviewee expresses the belief that there has been a shift in the attitudes of decision-makers and the public towards the idea of protecting nature. According to the interviewee, there is a need for shifting human-environmental relations "I think that things are changing right now, more and more decision-makers and then the general public" (IR1).

Additionally, from an institutional perspective, and considering future developments for the Pelagos, an institutional interviewee further emphasizes that the change can be

brought about by the combined contributions of stakeholders across scales, ranging from the Pelagos Secretariat to students interested in the Pelagos agreement and its activities

> "A clear path that should be followed by all these stakeholders, not only the parties, not only the permanent secretariat, but why not the whale watching operators, the students of the area also that are interested in the activities of the agreement, what they can do for the agreements, what can be their contribution to the activities of the agreement." (IR2).

The findings thus support the argument that a multi-stakeholder approach, ranging from institutional to small-scale business operators, is needed to tackle environmental challenges and contribute to the continued management of the Pelagos.

5.3.5 Sustainable Tourism Practices (Whale watching Tourism in Focus)

Several interviewees referred to the success of initiatives within the Pelagos. One of these constitutes agreements on whale watching management between the three countries, which represents an example of successful transboundary collaboration. Whale watching in the Pelagos represents one of the activities that have been subject to a bottom-up regulatory initiative that emerged out of the recognition of increased commercial whale watching activities. Namely, the High Quality Whale watching Label (CIMA, 2022), through the collaboration of ACCOBAMS, the Pelagos Sanctuary, various NGOs, and whale watching operators includes a Code of Good Conduct which supports the implementation of practices or encourage environmental responsibility and sustainable operations by operators. CIMA is the Italian partner of ACCOBAMS in charge of delivering the HQWW certification in Italy and started its implementation in 2019 while in France, Myricetin has been advancing the adoption of the HQWW. Having introduced one of the successes of collaboration, this section further elaborates on the perspectives identified towards whale watching tourism, both from the perspective of tourism operators and non-operators to situate the role of whale watching within the Pelagos. From an institutional perspective, it emerged that the HQWW was positively received and symbolizes one of the successful activities

developed also on an institutional scale. Whale watching represents one tourism activity taking place at sea, which, through the HQWW has been developed to improve the quality of operations through attention to environmental sustainability and ethics *"*the tourism activities are a very important question of the area and that's why, for example, for the whale watching activities, the implementation of the High-Quality Whale Watching label is one of our most important activities " (IR2).

Both the benefits for society of whale watching, in terms of increasing sensibility[37] and ocean literacy, were highlighted as well as the continued precautions to be taken "whale watching surely is very important for awareness raising, for people, to let them enjoy the sea, but also taking part in this environment, feeling connected with the species. And so, to increase the sensibility of the environment" (IR4). A related topic of discussion that emerged in the interviews was about the potential of Natura 2000 sites and national MPAs to encourage a more **mature approach** to raising awareness about the ecological interconnectedness of the marine system and their importance in fostering a wider ecosystem awareness and protection

> "Natura 2000 sites and marine protected areas and so on can increase this sense, this awareness, this maturity that we need. (...) just the idea of an area which has been productive because it's an important ecosystem. I think it's [*referring to whale watching*] definitely is one of the good ways to move towards a more mature awareness of the environment." (IR4).

Yet there is also a need for a more mature approach which communicates the complexity of the marine ecosystem and cetaceans "I think that we need also a more mature way of let the people understand the complexity of the animals and the fact that our presence could be perceived as a danger" (IR4).

Turning to the perspectives of whale watching operators specifically, the conversations informed about the content of whale watching tours. One operator involved in the study highlighted that their tours have been focused on imparting knowledge and

[37] In Italian, the term *sensibillizare,* which may be translated as making aware or sensitizing, was a term commonly used in the Italian context to describe the process of a changing relation to and awareness of the environment and sea

values about the wider ecosystem including marine mammals and seabirds “We have a lot of exploration also about, as I said, seabirds because we could see puffins (...) And so, we now also organize specific trips for bird watching in the open sea.” (TI). Whale watching tours were communicated to further take on the role of informing about the anthropogenic impacts on marine life, including issues such as plastic. The whale watching guides perceive that tours and knowledge shared can have the potential to mobilize awareness and a better understanding of the environment “During the excursion, if the crew and staff see something plastic, the motor vessel stops to pick on board this (...) during this tour we can do something for the environment.” (T1). This knowledge sharing may thereby also counter the lack of misinformed knowledge about cetaceans in society and increase literacy about the Mediterranean Sea “For the citizens in general, there's still a big mis-knowledge of cetacean presence in the Mediterranean. So, there's a lot to do.” (IR7).

5.3.6 Policies, Governance and Challenges

Particularly institutional actors highlighted the role of policies and governance through existing and applicable frameworks as operationalized within the European Union. Several interviewees stressed the need to regulate whale watching (#IR3, #IR4, #IR6, #IR1)

> “they have a huge potential to raise positive awareness on various aspects of the entire marine ecosystem, including the whales (...) As all activities, they need to be regulated because otherwise, they may cause problems, especially for specific species and in certain areas.” (IR3)

This quote exemplified the agreement among interviewees that whale watching has a positive potential for raising awareness about marine ecosystems such as through whales. This suggests that the activity can contribute to awareness of the environment. However, the quote also indicates that whale watching required regulations to mitigate potentially harmful impacts on certain species and areas in which they move.

One of the key challenges identified was the continued need to build capacities for connecting measures for conservation. The long-term protection of cetaceans in the

Mediterranean and the Ligurian Sea would benefit from continued integration of efforts between ACCOBAMS, the Regional Activity Centre for Specially Protected Areas protocol (SPA/RAC), and other existing management tools (Notarbartolo di Sciara et al., 2008). These efforts would require continued collaboration across nations including the Spanish Migration Corridor which has been recognized as a Marine Protected Area by the Spanish government (UNEP, 2018). From a scientific point of view, one challenge highlighted is that of coastal areas being the areas of attention, and not adequately representing the needs in offshore areas which are integral to cetaceans' movements and scientific data collection for certain species.

The interview findings indicate several arguments have been put forth to extend marine mammal protection beyond area-based measures and to tackle the anthropogenic pressures through mitigation measures, particularly in the case of migratory species. As such, MPAs and other frameworks such as MSP measures may better contribute to integrating the various needs for successful management (Evans, 2018). Echoing the recommendations set out in the Pelagos Agreement Management Plan, one area addressed specifically that there has been strong support for considering maritime spatial planning as a useful tool or framework to improve the current management of the Pelagos Sanctuary in tandem with international commitments on sustainable development and biodiversity (p.5). It was also suggested by interviewees that a more complex and mature ecosystem view, for all stakeholders interviewed including whale watching operators, scientific, and institutional ones, may contribute to a more rigorous and ecosystem-based approach. This maturity may be encouraged by activities like whale watching and constitute raising awareness about the significance of the ecosystem, encouraging responsible behaviors, and supporting the development of an environmental identity attuned to the environment. The Pelagos Secretariat has advanced improved guidelines with new monitoring mechanisms which will likely achieve the conclusion of tasks for each member.

In summary, marine conservation and management were identified as particularly of importance to the Pelagos and the actors involved which may in part be due to their position and affiliation. Additionally, transboundary governance emerged as another important value to several actors who highlight international agreements and the management of shared areas beyond national boundaries for the conservation of

marine mammals, particularly migratory ones. The effectiveness of marine conservation measures thus hinges on the collaboration of multiple stakeholders across spaces and scales. While some actors emphasized environmental education and awareness, such as business actors in whale watching, who most closely interact with tourists and the public during their tours, others, in the scientific realm, emphasized the importance of data collection and monitoring as part of the conservation strategy. Despite the commonalities in values and priorities, given the different positions and perspectives of stakeholders, different scales were more important than others, for instance, the Pelagos Secretariat emphasizes the wider scale of the entire Pelagos while regional actors, such as in Tuscany, emphasize the regional management. Likewise, regarding policies, depending on the role of the actors, those at the policy level, emphasize the regulatory EU frameworks while actors working directly at sea, are more focused on practical conservation efforts.

6. Discussion

6.1 Convergences and Divergences: Towards Synergistic Planning and Management

The research presented in this thesis started in the context of ongoing marine and coastal planning in Northeastern Iceland, thereby aiming to inform the *ex-ante* stage of its implementation. The findings contribute, in their content and theory, to a value analysis approach. In practice, the research responds to the procedural dimension of marine planning. Combined, the approach sought to inform about the potential challenges, convergences, and divergences among actors, and in relation to external dimensions. In its objective, the research approach sought to respond to and inform social and environmental sustainability challenges through a rigorous interdisciplinary, inter-researcher, and transdisciplinary approach. In its practice, data was gathered on the values, their descriptions, and associated knowledge of stakeholders to inform about and mobilize these into governance processes for the futures of the coastal community and marine life. Whales, particularly the Humpback whale, have become emblematic to the coastal community of Húsavík. Responding to the principles of place-based management in MSP, combined with the perspective of ethics and justice in inclusion, in line with JUSTNORTH objectives, the research approach prioritized community involvement, social and cultural understanding, and intercultural communication, thereby acknowledging their weight for ethical and effective planning. This tenet has been well established in scholarship, including for higher social acceptability, stock-taking, and public buy-in (Ehler, 2021). Locating the study within recent scholarship adressing Iceland`s marine planning, Wilke`s (2023) study highlighted the need for public inclusion in marine planning and found frustration about the lack of public inclusion in marine planning processes in Iceland. Her findings included concerns about spatial conflicts with emerging industries such as aquaculture, which may be mitigated through inclusive engagement of all stakeholders.

Considering the history of planning theories more widely, and among the various planning traditions, democratic planning highlights the participatory approach and incorporation of community goals into planning (Campbell & Fainstein, 1996). However, planning with and for the marine realm is yet a young field in development

and only some aspects of land-based planning may be relevant for marine planning. Placing this research in the wider context of scholarship on MSP, this research has attended to and sought to respond in its social research practice to the critiques put forward to advance the field through a place-based research approach that attends to the local realities and cultural context. Coming from the perspective of assessing the usefulness of land-based observations for the marine environment Kidd & Ellis (2012) have drawn attention to the lack of reflexivity within early MSP scholarship and call for more thorough engagement with the possibilities of social science analysis. Following Kidd & Shaw`s (2014) critical thoughts on the dominant view of MSP as a rational, technical process of universal applicability, the study recognized that it is rather a process, both social and political which is place-specific. Planning is furthermore linked to norms including participation, equity, openness, and dialogue in the marine realm (Mikkelsen et al., 2022) which is associated with the legitimacy of planning and governance processes. Successful management outcomes have been identified to succeed more likely if public support is achieved, contributes to socio-ecological system health, and further supports adaptation (Jones et al., 2016)

Before proceeding to the discussion of findings, since the beginning of this research, and specific to the Icelandic case study and within the frame of **research question 1**, several developments have been documented through continuous observation and research. These have altered the baseline to some extent and present new implications for the management of the marine space. The main development is that Skjálfandi Bay, Eyjafjörður, and Grímsey Island have been recognized as a Hope Spot area by Mission Blue, an organization led by Dr. Sylvia Earle. The local NGO Ocean Missions has published on its website that such a Hope Spot does however “not come with any binding agreements.” (Ocean Missions, 2024). Furthermore, it has been observed that a formal association has been founded for the conservation of Skjálfandi bay (Skjálfandi.org, n.d.).

Previously, and partially motivated by the findings that an MPA, or some other form of area-based management, was discussed by several interviewees and in literature reviewed for the Icelandic case, the research moved to the Mediterranean case of the

Pelagos to learn from an existing case wherein marine conservation for marine mammals has been a priority and formally implemented. To sum up the status of the two case sites: in Iceland and specifically in Húsavík, marine and coastal planning remains to be implemented while, in the meantime, a Hope Spot has officially been designated, which may serve as a catalyst for further actions and research. Moreover, regarding, marine tourism and specifically whale watching, the activity is the key pull factor for local tourism and taking place in the marine space. Thus, its management and regulation ought to be considered in all future government and regulatory frameworks in tandem with marine planning. In the Pelagos case, a sanctuary for marine mammals was designated before the EU MSP framework was introduced while other EU frameworks and initiatives, such as the Habitat Directive and Natura 2000 sites, have been previously enacted. At the time of the establishment of the Pelagos, and still today, it represents an innovative model and effort to advance conservation in the Mediterranean Sea, and specifically for marine mammals at a transboundary scale. This has been echoed in the Pelagos Agreement Management Plan 2022-2027 according to which the "Pelagos Agreement is indeed a pioneer in MSP applied to the conservation of marine mammals and their habitat." (p.3). As such, the ground basis for both cases has been established and may serve for wider marine planning, management, and conservation efforts.

In terms of values, data from both case study sites elicits a common interest in protecting the marine environment and cetaceans, which are crucial for stakeholders such as scientists, tourists, and whale watching operators, albeit with varying interests and stakes. This relates to Berke`s (2017) thought that governance constitutes multiple scales and interests wherein the local level may be most invested in protecting livelihoods, the national in tourism development, and the international in biodiversity conservation. However, in the Pelagos case, data indicated that a mere designation without effective regulations and engagements often results in paper parks. Moving from paper parks to genuinely protected areas requires significant investments of time, resources, and collaborative efforts among stakeholders (Kark et al., 2015). Shared values and visions can serve as a unifying force among these stakeholders and may be facilitated by the contributions of marine social sciences and science communication. During the research process, I took on the role of informer and initial point of contact

for many interviewees and individuals through informal conversations, thereby raising awareness about marine planning in Iceland, including the recently designated Hope Spot. This engagement underscores the importance of fostering community awareness, inclusivity, and understanding of rights and responsibilities in marine conservation efforts.

Regarding *Section 5.2*, and considering the role of international tourists, the research evolved with Níels Einarsson`s thought that, in the case of whale watching tourism in Húsavík, tourists may act as "salty-faced supporters of conservation, and to an extent, contributors to the viability of coastal communities" (Einarsson 2009, p.136). Following suit, the study was designed to explore whether tourists attracted to Húsavík may already, to some extent, be inclined to tend to nature more sustainably, reveal a more ecocentric attitude, and be more prone to support management actions to diminish tourism impacts. Furthermore, the study commenced in times of a global pandemic, now endemic, and uncertain futures which profoundly challenged human-environmental and human-animal relations, and prompted a collective reflection on behaviors and ethical stances.

The findings on tourist`s experiences during whale watching indicated that interviewees experienced a sense of awe and connectedness to something greater than the self also found in the study by (Curtin, 2009) who put forth that wildlife tourism translates into spiritual fulfillment and psychological benefits. In these moments of stillness and complete absorption of witnessing a whale, this finding may be translated into an experience of self-transcendence. Studies on the science of awe have confirmed that experiences in nature, particularly wild nature, can have a profound impact on an individual`s experience (Summer, 2018). These findings may further lead into a discussion in relation what Warwick Fox proposed to be a *transpersonal ecology* framework wherein Fox makes a valuable contribution in his reflection on the *Ecological Self*, pointing to the role of transformation towards an awareness of the Self and ecological awareness within the wider web of relations (Fox, 1995). Considering concerns about anthropogenic impacts which echo throughout findings ranging, from the impact of emissions on a more global scale to disturbances impacting the well-being of whales, the research area on transport and relationship between ecocentric

attitudes and mobility choices was further stimulated by a question posed by (Fennell, 2007) “Can we be considered ecocentric if we travel half way around the world while at the same time using vast amounts of fuel to satisfy our hedonistic desires?” (p.228). Fennell has discussed challenges of ecotourism including that of moving tourists between to, within, and from destinations (ibid). For inhabitants and tourists alike to act on their values and ethical stances, and to ease the potential state of cognitive dissonance, other factors ought to be considered in the influence on an individual`s ability to act on values (Pascual et al., 2023). These may include the availability and accessibility of transport infrastructures. To support values to become actionable, it is recommended to provide specific actions that can support beliefs and pro-environmental behaviors (Hofman et al., 2020). Therein, the research has reflected on matters of inequalities within tourism and mobility yet also for wider relations, prompting thoughts on *who gets to travel to the Arctic? What commodities are people willing to sacrifice? Who in the world gets to think about the wider ecosystem and issues of justice and fairness for the non-human? Do some spaces - and space itself - enable ecocentrism?.* These are questions which may be further explored through studies on intersectionality and correlations among situational factors, values, and needs. To recap, reflections on the global dimension of tourism may further stimulate reflection on the global models that are being followed which, once more, necessitate attention to values and visions.

Across findings, challenges remain in regulating the multiple, and at times competing, activities at sea. For instance, in the Icelandic case, whale watching and tourism remain unregulated and followed merely through a voluntary code of conduct. Yet, it was found that both formal and informal processes and actors are shaping the future of the community and bay, and NGOs such as WhaleWise and Ocean Missions are now exploring how to take the code of conduct to the next level (Young-Powell, 2022). On the other hand, in the Pelagos case, actors have come together to collaborate through the HQWW which has paved a new path for cooperation in the shared marine space, and particularly among scientists and conservation actors. Regarding the findings on values for governance-related aspects, in both cases, stakeholders expressed an interest and need for better regulatory mechanisms, ranging from the governance of MPAs for marine mammals to the activities taking place in these spaces, including whale

watching, in which most stakeholders are invested and depend on for their economic activity and livelihood. Stakeholders also expressed concern about anthropogenic impacts on the species they scientifically investigate and interact with as tourist guides, for instance. Therein, stakeholders in the tourism industry perceive their role as influential in contributing to awareness and education in civil society. It was found that in the Pelagos, institutional actors expressed a positive outlook yet to continue the efforts, identify a need for funding, strengthening the recognition and potential of whale watching, and supporting the sector to further be enriched with lessons on sustainability, citizen science, and ocean literacy.

In the Pelagos case, according to the findings of the consultation presented in the Pelagos Agreement Management Plan 2022-2027, MSP was communicated as a tool that received strong support which can be synergistic with other international commitments such as the UN Sustainable Development Goals and the EU Biodiversity Strategy 2030 (p.5). However, considering the case of Italy, the nation has not yet achieved its objectives in MSP (European Commission, n.d.). Regarding findings on cooperation and governance, these can be complemented with the ideas set out in the Pelagos Agreement Plan which foresees the Pelagos Agreement as a trilateral governance tool that supports concerted management and international cooperation and consultation among authorities (p.3). Specific projects, which were mentioned during interviews, such as Life CONCEPTU MARIS, can positively contribute to the management of anthropogenic pressures particularly for migratory species. Further opportunities have been identified in the whale watching sector wherein whale watching contributes as a commercial activity to the local economies yet also to educational and ocean literacy efforts in civil society. Albeit being a relatively young sector in Italy, whale watching has witnessed increased growth (Tepsich et al., 2020). The Pelagos exemplifies a case of good practice of collaboration between scientists and operators to further advance scientific evidence on cetaceans. For instance, through collaborative efforts and the registration of sightings on-board whale watching vessels.

To highlight some of the convergences and divergences across findings and speaking specifically to value categories, interviewees highly value a healthy ecosystem with a

united interest in the conservation and well-being of marine mammals, specifically whales. Scientific researchers and tourists emphasized that the well-being of cetaceans, specifically whales, is a priority yet there remain some uncertainties in both the scientific realm and from the perspective of tourists to what extent current whale watching and other activities at sea are harming their well-being. Given the salience to the case study context and its primary role in marine planning and tourism regulations, marine tourism was addressed in **research question 2** with a focus on the values of international tourists for ethical tourism management. Ethical perspectives such as ecocentrism can guide development pathways for marine environments and efforts to protect the wider ecosystem, in line with ecosystem-based management which encourages a holistic strategy and recognizes the potential of the dialectic relationship between *tourism for marine conservation* and *conservation for tourism*. While the data generated from the interviews shed insight into the perspectives on global and local challenges faced, it should be kept in mind that these are part of wider systemic challenges that require system-wide considerations. While it is recognized that environmental ethics and notions such as ecocentrism are primarily theoretical and philosophical endeavors, engaging in conversations that offer behavioral insights of those interested in the "product" or "experience" can inform management practices and contribute to market studies and defining limits and sustainability. Likewise, constructive innovation in the tourism sector can benefit from adopting principles of ecocentrism. As such, ecocentrism provides a moral and ethical foundation for addressing a wide range of tourism issues by recognizing the intrinsic value of ecosystems and their inhabitants, human and non-human. Furthermore, ecocentrism includes advocating for more sustainable energy practices including in the transportation and mobility sector to reduce the environmental footprint involved in tourism mobilities. To go from *saying* to *doing*, there is a need to integrate actionable sustainability. Furthermore, ecocentrism has the potential to foster an identity and attitude of care for all living beings (De La Bellacasa, 2017; Kopnina et al., 2018). While ecotourism can provide an avenue to better guide the sector and facilitate discussions for practical implementations (Weaver, 2001) there remain management challenges as to regulating tourism and visitor activities in environments, including the marine realm, which are at risk and should be low in impact (Higham, 2014). To respond, it can be said that both soft and hard approaches are needed including

education, ocean literacy campaigns, and communication to guide environmentally responsible behavior as well as regulations, policies, and infrastructure. For the tourism market, this research contributes to mobilizing a discussion about what kind of structures are to be created, whether legislative, physical, or educational. Behaviors can be furthermore be guided through advancements in travel offers, and if for instance, every tourist continues to rent a car, there is a chance casuistic behavior will arise in the social structure (Heimlich & Ardoin, 2008).

In *Section 5.3*, the values and priorities of institutional, scientific, and business actors were explored to, albeit differing geographies and contexts, aid in a complementary perspective for future marine planning with shared variables of interest, including marine mammal conservation, area-based management, and whale watching tourism. Moreover, the research sought learn about the power relations relevant to marine management and conservation. The Pelagos was identified as a unique sanctuary focused on marine mammals in the Mediterranean. Findings indicate an emphasis on cooperation, coordinated management of conservation measures, and an interest in protecting cetaceans and the wider ecosystem, and promoting sustainable tourism and cetacean research. Among challenges, the appropriateness of conservation sites was indicated as a matter of discussion. Furthermore, interviewees in the research presented in *Section 5.1* and *Section 5.3* studies vocalized a recognition of the significance of public inclusion in marine planning and decision-making. Sustainable tourism, including whale watching, was identified as one avenue for supporting local economies, education, and ocean literacy. As evidenced in the accounts of tourists in *Section 5.2*, whale watching can indeed contribute to raising awareness of marine ecosystem dynamics, and as was found, tourists are active observers and learners.

Regarding divergences, partially inherently due to interviewee`s diversity and positionality within sectors, it is considered that whale watching employees and business actors have an economic interest in tourism and are more concerned about the impacts of regulations on their operations. Scientists and some institutional actors (representing conservation values such as in several Pelagos actors), advocate for a formalized and science-driven approach which includes monitoring and data collection for developing sustainable approaches. While tourists expressed a more

value-driven approach that focuses on the personal experiences and some ethical considerations, it may be considered that they are also customers and have expectations such as return on investment, which are also influenced by marketing, for instance, the guarantee of seeing a whale during a tour.

Regarding **research question 3** and considering challenges for MPA management with a focus on species including migratory cetaceans, an approach which has been recognized as a "piecemeal" management approach, attempting to manage through small areas, thereby being insufficient for the management of interlinked systems (Agardy, Di Sciara, et al., 2011). A piecemeal and fragmented approach to marine management and conservation continues to pose challenges and institutional and scientific actors in the Pelagos emphasized that conservation measures, such as Natura 2000 sites, have been primarily focused on coastal areas. Thereby, cetaceans have often been overlooked in the official consideration of additional sites, adding a dimension of challenges to be further addressed and informed by science and monitoring at sea. While Natura 2000 sites have advanced protected areas for several marine mammal species, there remain gaps in protecting other species and advancing integrated management measures that respond to the ecological connectivity of the marine ecosystem (Evans, 2018). Thinking about planning with complexity-awareness and a systems theory lens, several interviewees in the Pelagos case mentioned the challenge of working within a structure that has a fragmented approach. Here, complex systems thinking may be one of the solutions to better approaching coordinated governance, particularly with awareness of complex systems behaviors including uncertainty and non-linearity which ought to be reflected in regulations by building upon connectivity and informing regulations with scientific evidence of marine mammal habitats and biodiversity dynamics at large.

In the case of species conservation through MPAs, it is therefore recommended to develop MPAs that can sufficiently cover the home ranges of species to be protected and to support the connectivity with nearby MPAs (Agardy, Di Sciara, et al., 2011). This echoes findings of a recent report by the WWF European Policy Office (2024), focusing especially yet not exclusively on the EU`s outmost marine regions, which found that management of EU marine areas remains fragmented, and stakeholder

engagement has been insufficient. As emphasized by van Tatenhove (2017) there is a need to move towards transboundary MSP, which may aid the move towards a more ecosystem and complexity-aware governance regime in which both national and regional plans have their place. Finally, transboundary collaboration is an important pillar for ocean governance and MSP (Jay, 2012), and fundamental to the context of migratory marine mammal protection, scientific research, as well as for data collection at sea and search and rescue endeavors. Marine mammals, such as cetaceans, can be an activator to unite over this objective. Considering the relationship of governance and environmental change including climatic changes such as the accelerated dissolution of ice and potential displacements often framed in the discourses of Polar Amplification, these may even increase the need for attention to transboundary management and cooperation in the Arctic region wherein "Environmental changes in the Arctic have evident impacts on marine ecosystems through biogeographical shifts and reorganization of marine communities and biodiversity. " (Alabia et al. 2023, p.1). As was found in the case of the Pelagos, this means attending also to offshore areas. On the other hand, in the Icelandic case, there is also a need to consider the relationships between the coastal area and ocean. In the case of Skjálfandi Bay, findings confirmed that the role of land-sea management in MSP is crucial. For instance, the coastal area including the harbor are significant sites from which the tourism industry interacts with the spatial uses of the bay.

As established by scholars in MSP, the outcomes and processes of marine planning differ and do not necessarily result in one formal plan for the marine space. Regarding the creation of area-based management tools, interventions may include a combination of regulations including those guided by conservation goals. Marine planning, through a mapping of habitats and uses, can facilitate the identification of an area where a marine protected area may be suitable (Vaughan & Agardy, 2020). Jay (2018) explain that MSP is a framework wherein MPAs *should* be created "both from a strategic point of view (planning as a policy tool) and from a spatial point of view (planning as a technical tool)." (p.6). Furthermore, the term *spatial*, as it appears in MSP, indicates that planning is an endeavor manifesting in space, defined by boundaries. This can be further viewed in relation to what Jay (2018) frames as the notion of *soft space* which he presents as a relational understanding where

"connections and flows are predominant; it suggests continual mutation and openness to the future." (p.456). As Jay writes, and closely related to conceptualizations of ecocentrism and complexity, viewing humans within the wider web of relations recognizes the connectedness to the non-human which responds to the view of a socio-ecological ecosystem view, which is complex and interdependent and in continuous exchange of material and flows. Therein, the sea is represented as a space where the consideration of uncertainties including considering the three-dimensionality of marine space, the forces and geological processes, sensitivity to change, among others, are germane to MSP processes (ibid).

Regarding uncertainties, the range of uncertainties differ and can include sudden boom-and-bust behavior in sectors, the unexpected and multiple tipping points in climatic behaviors, to times of war, all of which can suddenly upend and alter system dynamics of operations. It is in these times in which we should be able to refer to values, norms, rights and knowledge and legislation, including through co-creation with an extended peer community (as put forth in Post-normal science). Furthermore, there is resolution in an activated local context in which individuals, especially in small communities, have a sense of purpose, local knowledge built on a long-term observation, and stake in the sustainability of the place and its ecosystem constituents. Indeed, in contexts of uncertainties, including, increased fluctuations in weather, shapes the culture of planning in which adaptive capacities and agency become more salient. Here, local communities in remote areas can be said to have an essential role in first response mechanisms. In the case of marine megafauna including whales, there exists another set of uncertainties, including their presence, which can continue to be informed by scientific focus on issues including environmental changes and their impacts on migratory behaviors. Finally, the findings indicate that while it is good to have marine areas designated as protected areas, it is important to formulate a vision - *a what, how and why and with whom* these places will transition into well-managed areas. One may consider the self-organized and evolving spirit of the community - the *esprit d'un peuple* - particularly in small communities where agreements are often premised, also, based on informal interests and leadership.

6.2 The Arctic and Mediterranean: Geographies in Focus

The study was not set out to be comparative but rather complementary while recognizing, as was corroborated in the findings, that many of the challenges for marine management and conservation are shared. In my view this suggests, and as other scholars have put forward including in the context of the rights for nature (Harden-Davies et al., 2020), a suitable move towards recognizing marine spaces as a global common which would benefit from global stewardship. Both cases and specifically, both marine areas, were found to be areas in transition and subject to marine planning as put forth in their forms in respective national frameworks. Notably, both areas carry with them the idea of places where hope and a sanctuary can be found invoking an emotional dimension in human-marine relations. This signals that humans can have the power, by uniting over a vision and objective, to positively contribute to the futures of marine spaces. Here, science communication and citizen engagement become vital for defining why these areas have been declared as a Hopespot and why they may provide a Sanctuary.

Yet, whether in the case of a marine protected area, or a type of area designated for the conservation of marine species, or the recognition of rich marine biodiversity such as a sanctuary or Hopespot, each of the locations where these areas exist are yet bound by different contexts, from geographic, ecological to social, and including cultural practices which represent the human dimensions of such areas (Charles & Wilson, 2009). For both, the Icelandic case and the Pelagos, cetaceans specifically have a primary role in shaping values and interests. As highlighted by some actors in the Pelagos, cetaceans have transformed into beings often described as charismatic megafauna that move those who experience their sight and presence. The transitions that have been occurring in societies respectively may be captured by formulations such as “From Good to Eat to Good to Watch” (Einarsson, 2009) , “Meet Us, Don`t Eat Us” (IFAW & IceWhale, n.d.), and “From Sea Monsters to Charismatic Megafauna” (Mazzoldi et al., 2019). The value of whales has been recognized to be more challenging to measure given the cultural and heritage values (National Research Council, 2001). However, in addition to economic valuation methods, these values may be able to inform us about the shifting human-environmental and human-wildlife

relations. Geography matters and shapes the operations of science and tourism - in the case of Húsavík and Skjálfandi Bay, the vast ocean is in immediate proximity facilitating relatively rapid encounters with whales while in the case of the Pelagos, such excursions require a longer distance travelled. Moreover, it is imperative to consider the unique circumstances of remote communities in the Arctic.

Returning to the dynamics of governance with attention to Iceland`s demographic profile specifically, an island with a population of approximately 383,726 (Statistics Iceland, 2023) and 3,156 in the Norðurþing municipality (Statistics Iceland, n.d.), the role of proximity and demography influences decision-making processes. Small communities have the potential to empower individuals to actively participate in governance and conservation efforts. Considering the national population in Iceland and local community inhabitants, some interviewees perceived that this environment enables the expression of one`s voice in decision-making. It was likewise observed throughout ethnographic research, that in smaller communities, individuals tend to assume more of a role including the "scientist", "activist", "whale watching guide" and "fisherman", which among others may stimulate an empowered communities model (Haas et al., 2022). This thought may further be transferred to another scale i.e. the marine mammal and cetacean scientific community which is a relatively small community of practice with great potential for collaboration and data sharing.[38] Finally, The 2024 recipient Oran Young of *The Mohn Prize* wrote in his book on the *Grand Challenges of Planetary Governance* (2021) that we need governance systems that are "both robust in the sense that they have the capacity to steer the actions of a variety of actors under a range of conditions and agile or nimble in the sense that they are able to adjust easily and quickly in response to nonlinear developments in complex systems" (p.6) to which he proposes tackling these challenges through innovation to gauge the qualities of both robustness and agility. The following paragraphs discuss some potential measures and resources to be further deliberated.

[38] For instance, through collaborations in the European Cetacean Society (ECS)

6.2.1 Policy and Regulatory Considerations in Context

Science and Knowledge Dissemination and Communication

Scientific knowledge dissemination and communication are pivotal for informed decision-making for marine biodiversity protection. Húsavík, home to the University of Iceland's Research Center, plays a critical role in continuously informing scientific data, for instance, through its cataloguing system of cetaceans. Education and the widespread circulation of knowledge are crucial to empower future generations and the public in making informed decisions. Yet these need to involve the wider community including the local inhabitants who are not involved in any of the activities taking place in the harbour. Potential strategies include investing in ocean education and citizen science initiatives and disseminating these in the local schools. Additionally, at the national scale, it is recommended to foster meaningful and inclusive stakeholder engagement in marine planning and related regulations through contact and communication with national and regional stakeholders. Finally, it is also recommended to involve marine social researchers in this process.

Management and Governance

In the realm of management and governance, uncertainties persist regarding the impacts on the marine environment and marine mammals. Adopting a precautionary approach and adaptive governance is essential. Stakeholder visions ought to be considered alongside plausible futures for the marine space, as Marine Spatial Planning (MSP) is inherently a future-oriented process. This approach allows decision-makers to negotiate and guide steps in marine planning effectively. Barriers to centers of power and politics in marine planning, decision-making, and regulations must be addressed through enhanced participatory and engagement initiatives at local, regional, and national levels. Embracing innovative governance structures and interactive governance could be effective in managing the rapidly transforming social, cultural, economic, and ecological contexts. Moreover, businesses should exercise caution in advertising sustainable practices and be transparent about uncertainties which may be resolved with experts and responded to with innovators. To prevent separations in governance, and essentially, in the community, it is also recommended

to listen carefully to the multiple perspectives and avoid divisions over contentious issues such as whaling.

In the Pelagos case specifically, recognizing whale-watching activities in the coastal registry is essential for acknowledging their significance in marine tourism and conservation yet also scientific data collection. Offshore waters should be considered for biodiversity conservation and broader environmental measures, including recognizing the vital role of cetaceans in the ecosystem. Continued research involving local coastal communities and engagement in initiatives such as the Pelagos Sanctuary are crucial for enacting values in civil society, as outlined in the Pelagos Action Plan. Moreover, as was found in the interviews, providing opportunities for consistent and long-term funding for institutions is necessary to enhance their capacities for collaboration and ensure the continuity of projects, fostering long-term sustainability and effective marine management.

7. Conclusion

This research advances transdisciplinary engagement and a science for society which recognizes the plurality of values and deliberation processes in the extended peer community to advance a systems approach to learning and governance. My research sought to shed light on the complex human-environment relationships and values, perceptions, and knowledge within specified case study contexts. Viewing the social and ecological system as exhibiting complex behaviors, it is evident that marine systems are characterized by uncertainties, which poses various challenges for a static valuation approach and linear management process of the marine environment. Thus, complex socio-ecological issues compel for holistic valuation approaches. Herein, value categories as presented in this research, albeit being organized along overarching categories for serving the practicalities of organization and discussion, may better be viewed as open systems, linking into each other in multiple ways. How to balance and incorporate market-based values and the relational, intrinsic and non-market-based values remains a challenge yet a one that needs to be addressed to advance towards more just and sustainable futures. Moreover, the contextual approach to area-based management processes and perspectives proves to be crucial for guiding the research from *where we are* to *where we want to go* and to imagine alternative futures based on existing knowledge and actions.

Theoretical and Methodological Contributions

Coastal and marine planning have been approached through concepts and frameworks for several decades, and have been evolving with different terminology, frameworks, and legislation globally. However, in Iceland, the marine planning approach is young and has, as of yet, been insufficiently addressed from a scientific perspective. Likewise, in the Pelagos, engagement with social aspects, including at the normative level, has not been sufficiently addressed in the scientific realm.

My research, in its design and purpose, serves as a piece in a wider collective scientific effort and system of interests to inform the futures of the Arctic primarily, and secondarily of the Mediterranean with an approach that expands and contextually recognizes the values, knowledge systems, matters of justice and rights of

stakeholders in various planning projects both in coastal areas and the ocean. However, in qualitative research approaches, often the focus is on one specific group of stakeholders. This research provides an innovative and comprehensive approach by integrating within one work the plurality of perspectives of diverse actors, rights- and stakeholders, to offer insight into the convergences and divergences based on primary data collected. Transformative change may take place when the various actions by the different stakeholders advance together with the expanded view of values. In my research, I actively sought to engage a range as diverse as the scope and resources of this research permitted. As such, this thesis offers novel insights on the social perspective for marine planning and whales in specific contexts.

As scholarship in the field of marine planning has established, MSP has often operated at a national scale while this respond to the need to move to the local level to better contextualize and respond to context-aware planning. Furthermore, in view of contributing to frontier research on ethical issues in the marine realm, this study brings forward the experiences and interactions with marine spaces and marine life which are examined to contribute to an area within ocean ontology that is system-oriented and holistic embrace a changing understanding of the value of the ocean, including its intrinsic value. Here the research has engaged with a wider set of values to identify pathways for more just and sustainable management with attention to the social and distributive impacts of MSP.

Considering developments in the fields of research, qualitative research in the marine realm remains scarce and particularly in relation to marine mammals which is predominantly addressed from a natural sciences perspective, which was likewise evident throughout empirical praxis. In its practice, through both, social and ecological training, which took place to inform this research, I have actively sought to engage with the perspectives and approaches of marine biologists who work directly with marine mammals and cetaceans. Regarding contributions to the field of tourism, the study delivers in-depth qualitative research with tourists thereby providing thicker data insights compared to surveys which were the primary method applied according to the literature review. Thereby, the research offers, to some extent, insight to the motivations and behavioral aspects and to the storytelling of subjective experiences. Finally, the research has started discussions about the role of

ethics and engagement with scholarly thought about the rights of the more-than-human world which will continue to be of pertinence as accelerated environmental changes will likely continue to alter and re-configure relations and ecosystem dynamics. For this, we should be able to adapt and recognize that a learning approach and governance for the oceans with complexity-awareness can be a complementary pathway to advance towards societies living sustainably and in peace.

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9. List of Publications, Contributions, and Presentations

Gómez, S., Patraca, B., Zoghbi, J., Ariza, E., Wilke, M., Einarsson, N., Smáradóttir, S., Huijbens, E., & Chambers, C. (2024). Exploring social media as a tool for disentangling cultural ecosystem service values of whale-watching to inform environmental judgements and ethics: the case of Húsavík, Iceland. Journal of Ecotourism. Advance online publication. https://doi.org/10.1080/14724049.2024.2308367

Wood-Donnelly, C., Huijbens, E. H., Hansen-Magnusson, H., Ariza Sole, E., Baczynska, B., Chambers, C., Einarsson, N., Gehrke, C., Ingimundarson, J. H., Kiimann, H., Larsen, J. N., Gómez Mestres, S., Millar, S., Smáradóttir, S., Wilke, M., & Zoghbi, J. (2022). Justice in Scale and Distribution: A Comparative Integrated Report. https://doi.org/10.5281/zenodo.10203671

Internal JUSTNORTH Project Deliverable

Contributor: Deliverable Dx3.3 *Set of Case Study Discussion Paper on Stakeholder Ethical Perspectives and Barriers to Sustainable Development* (internal file).

Presentations (directly related to thesis content)

Presenter, 2024 Arctic Congress, 05/2024, Bodø, Norway
Transformative roles in tourism: exploring visitor experiences and ethical orientations for ecosystem sustainability in Húsavík, Northeast Iceland

Presenter, 2023 Arctic Science Summit Week, 02/2023, Vienna, Austria
Resonating with values for socio-ecological transitions: marine planning, whales and tourism in Northeast Iceland

Presenter, JUSTNORTH Conference, 10/2022, Akureyri, Iceland
Observing values for just transitions - futures for Húsavík and Skjálfandi bay

Presenter, Congrés Català d'Antropologia (CoCA), 01/2022, Girona, Spain
Co-producing knowledge for the futures of the ocean

Appendix 1

Approval to conduct research by the Commission on Ethics in Animal and Human Experimentation (CEEAH)

UAB
Universitat Autònoma de Barcelona
Vicerectorat d'Investigació

Comisión de Ética en la Experimentación Animal y Humana (CEEAH)
Universitat Autònoma de Barcelona
08193 Bellaterra (Cerdanyola del Vallès)

La Comisión de Ética en la Experimentación Animal y Humana (CEEAH) de la Universitat Autònoma de Barcelona, reunida el día **18-03-2022**, acuerda informar favorablemente el proyecto con número de referéncia **CEEAH CA55** y que tiene por título **"Provisional: Marine socio-ecological complexity –A Case Study in Northern Iceland"** presentado por **Eduard Ariza.**

Elaborado:	**Aprobado:**
Nombre: Nuria Perez Pastor Cargo: Secretària de la CEEA de la UAB Fecha:	Nombre: José Luis Molina González Cargo: President de la CEEAH de la UAB Fecha:

Appendix 2

Section 5.2: Interviewee Feedback

Interviewees were asked to comment on their interview experience. Feedback included "good for reflection", "good opportunity to express", "interesting", "to talk to someone about it is quite nice", "research like this is pretty important", "good points", and one expressed that the themes of the questions were familiar to them. Furthermore, their feedback included a contact section to complete if interested in further information about the research findings of which 18 interviewees indicated *yes*.

Appendix 3

List of Mentioned Cetaceans

Humpback whale (*Megaptera novaeangliae)*

Killer whale (*Orcinus orca)*

Blue whale (*Balaenoptera musculus*

Sperm whale*s* (*Physeter macrocephalus*)

Bowhead whales (*Balaena mysticetus*)

North Pacific right whale (*Eubalaena japonica*)

Minke whale (*Balaenoptera acutorostrata*)

White-beaked dolphin (*Lagenorhynchus albirostris*)

Harbor porpoise (*Phocoena phocoena*)

Sei whale (*Balaenoptera borealis*)

Northern bottlenose whale (*Hyperoodon ampullatus*).

Cuvier's beaked whales (*Ziphius cavirostris*)

Long-finned pilot whales (*Globicephala melas*)

Striped dolphins (*Stenella coeruleoalba*)

Short-beaked common dolphins (*Delphinus delphis*)

Risso's dolphins (*Grampus griseus*)

Common bottlenose dolphins (*Tursiops truncatus*)

Appendix 4

Data Agreement

CER ARCTIC, Edifici B – Campus de Bellaterra
08193 Cerdanyola del Vallès · Barcelona
Tel.:(+34) 93 581 14 59 ·
http://centresderecerca.uab.cat/cerarctic/en

AGREEMENT CER ARCTIC-SAI

Dr. Eduard Ariza and doctoral researcher Jade Nicole Zoghbi, members of the Arctic Research Center (CER ARCTIC) at the Autonomous University of Barcelona, participants in Case Study 8 of the JUSTNORTH project, agree to:

- Use for the purposes of Jade Nicole Zoghbi's doctoral research only the data generated within the framework of the JUSTNORTH project by doctoral student Jade Nicole Zoghbi. Specifically, 7 interviews and information contained in the section about Concerns and Visions for the Future of the Bay / Land-Sea Dynamics of deliverable D.x2. She will also make reference to the method that was used in the JUSTNORTH interviews.
- In this process, the UAB Code of Good Practice in Research in the investigation of the Ethics Commission on Animal and Human Experimentation of the Autonomous University of Barcelona will be followed. https://www.uab.cat/web/noticies/new-version-of-the-uab-code-of-good-practice-in-research-1345735629292.html?noticiaid=1345840977251.
- In this process, the JUSTNORTH ethical guidelines will be followed (see Annex).
- It will be guaranteed that any information collected for presentation or publication will not be linked to the name of the informants. The data derived from this study may be used in reports, presentations, and publications but informants will not be individually identified. The researchers will protect the confidentiality of the informants by coding practices so no one will be able to trace the answers to their name and only the UAB researchers (Eduard and Jade) will have access to their information.
- As members of the local community, the JUSTNORTH project leads from the Stefansson Arctic Institute may review the final chapter produced in which the quotes collected by Jade Nicole Zoghbi have been used to guarantee the proper protection of the confidentiality of informants and the proper handling of sensitive community information.

CER Arctic	CER Arctic	SAI	SAI
JADE NICOLE ZOGHBI - DNI Y8276532L	EDUARDO ARIZA SOLÉ - DNI 38835211 X		16.02.22

Appendix 5

INFORMED CONSENT FOR PARTICIPANT

Dear participant,

Thank you for your interest in the research. My doctoral research is associated with the JUSTNORTH project (Towards Just, Equitable and Sustainable Arctic Economies and Societies) and takes place in collaboration with The Stefansson Arctic Institute (Stofnun Vilhjálms Stefánssonar) in Akureyri, Iceland.

Before our conversation, I would like to inform you about your rights and the use of the information collected. You can withdraw from the study at any time without giving an explanation nor being penalized. You can inform me through the communication channel you prefer. You are also entitled to exercise your rights under the European General Data Protection Regulation by making a request to my supervisor, Dr. Eduard Ariza, eduard.ariza@uab.cat, enclosing a photocopy of your ID document. Request forms for this purpose are available on the website of the UAB Data Protection Office). Moreover, you have the right to file a claim before the Catalan Data Protection Authority) or to contact the data protection officer of the Autonomous University of Barcelona). In all cases you will receive a written response within the legal time limit, stating what action has been taken. The information from this interview will be kept if deemed necessary for the treatment purposes and addressing the possible responsibilities that may arise, without prejudice to the exercise of the rights that the General Data Protection Regulation recognizes to the data owners. The processing of your data does not involve automated decisions or creating profiles for predictive purposes of personal preferences, behaviors, or attitudes.

Ms. Jade Zoghbi
Doctoral Student
Universitat Autònoma de Barcelona
Jade.Zoghbi@uab.cat

	Please tick box	
	YES	NO
I consent to being interviewed by the researcher	☐	☐
I agree to the interview being recorded (audio/video) for research purposes	☐	☐
I consent to the use of my contributions in audio or video recordings for purposes of scientific dissemination, provided steps are taken to safeguard my privacy	☐	☐
I consent to my contributions being quoted literally with no mention of my name and to audio or video recordings of my statements being played back with no mention of my name	☐	☐
I understand that any personal information I provide is confidential, and that no information that I disclose will lead to the identification of any individual	☐	☐
I consent to the processing of my personal information and data for the purposes of this research study. I understand that such information will be treated as strictly confidential (unless I have consented otherwise above) and handled in accordance with the General Data Protection Regulation (GDPR)	☐	☐
I understand that my participation in this study is voluntary, that I can choose not to participate in part or all of the project	☐	☐

I have had the project explained to me, I have read and understood the information letter, which I may keep for records.

Participant

Initials _____

Date _____

Researcher

Initials _____

Date _____

Appendix 6

GDPR Consent Form - CIMA

INFORMATIVA SUL TRATTAMENTO DEI DATI PERSONALI

ai sensi dell'art. 13 del Regolamento (UE) n. 2016/679

..*

Interviste realizzate nell'ambito di un'attività del dottorato di Jade Zoghbi "valutazione del valore socio-ecologico dell'ambiente marino e dei cetacei mirato a supportare l'organizzazione dello spazio marittimo, con un approccio multi-stakeholder"

Gentile Signora, Egregio Signore,

il Regolamento (UE) 2016/679 del Parlamento europeo e del Consiglio, del 27 aprile 2016 (*General Data Protection Regulation* – nel seguito "**Regolamento**" o "**GDPR**") assicura la tutela e la protezione delle persone fisiche con riguardo al trattamento dei dati di carattere personale.

Fondazione CIMA (nel seguito "**Fondazione**" o "**CIMA**"), si conforma alle disposizioni del GDPR, promuovendo la protezione dei dati personali secondo i principi di liceità, correttezza e trasparenza. A tal fine, ai sensi dell'art. 13 GDPR, desideriamo informarla che:

1. **Modalità di raccolta, trattamento e conservazione dei dati**: i suoi dati sono raccolti, trattati e conservati da CIMA preferibilmente in formato digitale, per il tramite di sistemi informatici sotto il controllo di CIMA ovvero, qualora ciò non sia possibile, tramite raccolta e conservazione di documentazione cartacea custodita.

2. **Tipologia di dati e finalità del trattamento**: i suoi dati personali – anche di tipo particolare (art. 9 GDPR) – sono trattati da CIMA ai fini della gestione organizzativa e amministrativa, comprese le finalità di interesse legittimo correlate ovvero gli adempimenti amministrativi, contabili e fiscali, ossia ai fini del recepimento e della gestione di obblighi previsti da leggi, regolamenti e normativa nazionale e comunitaria, nonché da disposizioni impartite da autorità a ciò legittimate dalla legge e da organi di vigilanza e controllo. I suoi dati, in particolare, sono trattati ai fini presentare la sintesi delle testimonianze relative allo scopo dell'attività oggetto del dottorato e le eventuali comunicazioni e disseminazioni dei materiali del dottorato.

3. **Obbligo di conferimento**: il conferimento dei suoi dati è facoltativo. Nel rispetto del principio di limitazione di cui all'art. 1 GDPR, la Fondazione si impegna a raccogliere e trattare unicamente i dati appropriati e necessari per le finalità di cui al precedente paragrafo 2.

4. **Comunicazione dei dati**: CIMA si impegna a conservare i suoi dati personali con la massima riservatezza e a non divulgarli a soggetti terzi, esterni all'organizzazione di CIMA, se non per fini divulgativi. Ciononostante, esclusivamente per le finalità di cui al paragrafo 2 e qualora questo sia necessario al fine di un corretto adempimento degli obblighi imposti dalla normativa europea e nazionale, i suoi dati personali potranno essere comunicati a soggetti terzi, istituzionali o giudiziari, rispetto alla Fondazione.

5. **Periodo di conservazione**: CIMA conserverà i suoi dati per un periodo massimo di dieci anni, a far data dalla cessazione del rapporto. I dati potranno essere conservati per un periodo anche eccedente il termine indicato dal presente paragrafo nel caso in cui la conservazione sia necessaria per adempiere ad un obbligo imposto dalle Istituzioni, entro i termini strettamente necessari per l'adempimento di tale obbligo.

6. **Diritti dell'interessato**: lei ha diritto in ogni momento di richiedere alla Fondazione: (**a**) se sia o meno in corso un trattamento dei suoi dati e, in tal caso ha diritto (**i**) di conoscere le finalità del trattamento, (**ii**) di conoscere le categorie di dati in questione, (**iii**) di conoscere i destinatari o le categorie di destinatari a cui i dati personali sono stati o saranno comunicati, (**iv**) di conoscere il periodo di conservazione dei dati personali, (**v**) di proporre reclamo all'autorità di controllo, (**vi**) qualora i suoi dati siano stati ricevuti da terze parti, di ricevere tutte le informazioni possibili sulla loro origine; (**b**) nel caso in cui i dati siano trasferiti verso un paese terzo, se esistano adeguate garanzie ai sensi dell'art. 46 GDPR; (**c**) la trasmissione di una copia dei dati personali in possesso della Fondazione, ove detta fornitura non leda i diritti e le libertà di terzi; (**d**) la rettifica o l'integrazione dei dati personali inesatti o incompleti; (**e**) la cancellazione dei suoi dati personali, nel caso in cui (**i**) essi non siano più necessari per le finalità di cui alla presente informativa, (**ii**) lei abbia revocato il consenso al trattamento dei suoi dati personali, ove non sussista altro fondamento giuridico per il trattamento, (**iii**) lei si sia opposto al trattamento dei suoi dati personali ai sensi dell'art. 21, c. 1, GDPR e non sussistano motivi legittimi prevalenti per procedere al trattamento, (**iv**) i dati debbano essere cancellati per adempiere ad un obbligo legale, (**v**) non ricorrano le motivazioni di cui all'art. 17, c. 3, GDPR e, in particolare, i dati non siano necessari per l'accertamento, l'esercizio o la difesa di un diritto in sede giurisdizionale; (**f**) la limitazione del trattamento alle condizioni previste dall'art. 18 GDPR; (**g**) la portabilità dei dati trattati con sistemi automatizzati, alle condizioni di cui all'art. 20 GDPR. Lei ha inoltre il diritto di opporsi al trattamento dei dati alle condizioni di cui all'art. 21 GDPR. Lei ha diritto di rivolgersi con reclamo all'autorità di controllo (Garante per la protezione dei dati personali) a tutela dei suoi diritti.

7. **Base Giuridica e Consenso**: ai sensi degli artt. 6 e 9 GDPR, i dati personali diversi da quelli "particolari" (dati che rivelino l'origine razziale o etnica, le opinioni politiche, le convinzioni religiose o filosofiche, l'appartenenza a una organizzazione sindacale, i dati genetici o biometrici identificativi, i dati relativi alla salute, alla vita sessuale o all'orientamento sessuale) possono essere raccolti, trattati e conservati da CIMA, in presenza di espresso consenso e nella misura in cui ciò non leda i suoi diritti e libertà fondamentali. Ai sensi dell'art. 9 GDPR, i dati personali "particolari" possono essere

trattati e conservati da CIMA, anche in assenza di espresso consenso, qualora il trattamento sia necessario per l'accertamento la difesa o l'esercizio di un diritto in sede giurisdizionale, o comunque per le finalità connesse all'esercizio di poteri giurisdizionali, ovvero per assolvere gli obblighi ed esercitare i diritti di CIMA in materia di diritto del lavoro, sicurezza sociale e protezione sociale, nella misura in cui tale trattamento sia autorizzato dalla normativa europea o nazionale o da un contratto collettivo e non leda i suoi diritti e le sue libertà fondamentali.

CIMA garantisce l'adozione di norme di comportamento e misure tecniche (fisiche e informatiche) idonee alla protezione dei suoi dati personali.

CIMA assicura l'esecuzione di controlli e aggiornamenti periodici in relazione all'adeguatezza e alla corretta applicazione da parte del suo personale delle norme di comportamento e delle misure tecniche applicate, comunque rimanendo disponibile a fornirle ulteriori precisazioni e/o chiarimenti.

Il **titolare** del trattamento è: Fondazione CIMA. Per qualunque segnalazione può rivolgersi al **Data Protection Officer** al seguente contatto: dpo@cimafoundation.org

DICHIARAZIONE DI CONSENSO AL TRATTAMENTO DEI DATI PERSONALI

ai sensi degli artt. 6, 7 e 9 del Regolamento (UE) n. 2016/679

Alla Fondazione CIMA

Il/la sottoscritto/a (cognome) _____ (nome) _____

nato a _____ (____) il _____

indirizzo di residenza _____

dichiara

di aver ricevuto idonea informativa relativa al trattamento dei suoi dati personali da parte della Fondazione CIMA, ai sensi dell'art. 13 del Regolamento (UE) n. 2016/679, e di averla per l'intero compresa.

Per l'effetto,

dichiara

di prestare il proprio libero, espresso e consapevole consenso al trattamento dei propri dati per la gestione organizzativa e amministrativa per la sintesi della testimonianza relativa alla ***"valutazione del valore socio-ecologico dell'ambiente marino e dei cetacei mirato a supportare l'organizzazione dello spazio marittimo, con un approccio multi-stakeholder"*** o somministrazione in essere, di selezione, comprese le finalità di interesse legittimo correlate ovvero gli adempimenti amministrativi, contabili e fiscali; per il recepimento e la gestione di obblighi previsti da leggi, regolamenti e normativa nazionale e comunitaria, nonché da disposizioni impartite da autorità a ciò legittimate dalla legge e da organi di vigilanza e controllo

□ **sì** □ **no**

di prestare il proprio libero, espresso e consapevole consenso al trattamento dei propri dati per le finalità di comunicazione e diffusione dei materiali e risultati dall'attività, con le modalità suddette, compresi i dati presenti in contributi audio e testi

□ sì □ no

Il cambiamento nell'espressione del consenso deve essere comunicato al **Data Protection Officer** al seguente contatto: **dpo@cimafoundation.org**

Savona, il _____ (Firma) _____