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The Role of Traditional Knowledge in Marine Biodiversity Negotiations: Struggles over Area-Based Management Tools (ABMTs) and Marine Protected Areas (MPAs)

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Contents

List of Abbreviations and Acronyms

ABNJ	Areas Beyond National Jurisdiction
ABMTs	Area-Based Management Tools
Aichi Targets	Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets
APEIs	Areas of Particular Environmental Interest
AOSIS	Alliance of Small Island States
BBNJ Negotiations	Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction
CARICOM	Caribbean Community
CBD	Convention on Biological Diversity
CEE	Collaborative Event Ethnography
CLAM	Core Latin American Countries
COP	Conference of the Parties
EBSAs	Ecologically or Biologically Significant Marine Areas
EU	European Union
Facilitator	Facilitator of the Informal Working Group on ABMTs, including MPAs

FAO	Food and Agriculture Organization
G.A.	United Nations General Assembly
G77 + China	Group of 77 and China
IGC	Intergovernmental Conference
IMO	International Maritime Organization
IOC-UNESCO	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization
IPBES	Intergovernmental Platform on Biodiversity and Ecosystem Services
IPLCs	Indigenous People and Local Communities
IUCN	International Union for the Conservation of Nature and Natural Resources
ISA	International Seabed Authority
MARPOL	International Convention for the Prevention of Pollution from Ships
MPAs	Marine Protected Areas
OECMs	Other Effective Area-Based Conservation Measures
PSIDS	Pacific Small Island Developing States
PSSAs	Particularly Sensitive Sea Areas
REMPs	Regional Environmental Managements Plans
RFMOs	Regional Fisheries Management Organizations
SAs	Special Areas
SDGs	Sustainable Development Goals
TK	Indigenous, local and traditional knowledge
UN	United Nations Organization

UNCLOS	United Nations Convention on the Law of the Sea
World Ocean Assessment	First Global Integrated Marine Assessment: World Ocean Assessment I

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Glossary

- **Areas Beyond National Jurisdiction (ABNJ):** Areas that do not fall under any state's jurisdiction.
- **Biodiversity or biological diversity:** "Variability among living organisms from all sources (…) this includes diversity within species, between species and of ecosystems" (CBD, art. 2).
- **Conference of the Parties (COP):** "Series of meetings provided for in some multilateral treaties to enable or facilitate its implementation" (Grant & Barker, 2009, p. 116).
- **High seas:** "All parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a State, or in the archipelagic waters of

an archipelagic State" (UNCLOS, art. 86). In other words, the high seas are areas beyond national jurisdiction.

- **Informal informals:** Sessions that are "strictly off-limits to anyone except a core group of delegates" who "meet outside the main negotiating rooms and bring together only those governments that have a strong interest in a particular issue that has caused disagreement" (Kamau et al., 2018, p. 12).
- **Informal Working Group:** Group that works "on a specific issue or section of the text" (Kamau et al., 2018, p. 12).
- **In situ conservation:** "The conservation of ecosystems and natural habitats and the maintenance and recovery of viable populations of species in their natural surroundings" (CBD, art. 2).
- **Jurisdiction:** States' right to make and enforce legal rules (Grant & Barker, 2009).
- **Knowledge system:** "A body of propositions that are adhered to, whether formally or informally, and are routinely used to claim truth" (Díaz et al., 2015, p. 13).
- **Plenary sessions:** Sessions that are "open to everyone with proper accreditation (…) where member states make individual statements on the issue under discussion" (Kamau et al., 2018, p. 11).
- **President's aid to negotiations:** Document prepared by the President of the BBNJ negotiations to facilitate "focused discussions and text-based negotiations" at the second Intergovernmental Conference (President's aid to negotiations, 2018, pp. 1-2).
- **Party or state party:** "State which has consented to be bound by the treaty and for which the treaty is in force" (Vienna Convention on the Law of Treaties, art. 2.1.g).
- **Substantive articles:** Articles of substantive law.
- **Substantive law:** "The part of the law that deals with rights, duties, and all other matters that are not matters purely of practice and procedure" (Law, 2018, p. 212).

Introduction

Since 2018 states are negotiating a new treaty under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Negotiations), where area-based management tools (ABMTs), including marine protected areas (MPAs), are central measures to protect the high seas.

Gray et al. (2014) conceptualized MPAs as a boundary object that allowed several actors to agree on "increasing MPA coverage" despite their different interests in previous negotiations (p. 66). Global North state actors indicated that the identification of MPAs was a scientific exercise, while Global South state actors pointed to the insufficient financial funds and arbitrary nature of such a task (Gray et al., 2014).

Previous studies have shown that environmental negotiations have failed to provide overarching definitions of ABMTs and MPAs due to the diverse interests of states. One key interest is the type of knowledge that should underpin these tools.

While defining these protection measures in the BBNJ Negotiations, the following state actors made claims to science and Indigenous, local and traditional knowledge (TK): Australia, Brazil, Canada, the EU, G77 + China, Mauritius, New Zealand, Philippines, Seychelles, Tonga (Informal Working Group on ABMTs, including MPAs, September 7 and 13, 2018; Informal Working Group on Cross-cutting Issues, April 4, 2019; Informal Working Group on ABMTs, including MPAs, August 21, 2019). Few scholars research the role of science in international environmental negotiations and even fewer scholars study the role of TK in these sites.

I aim to contribute to the literature about TK in International Relations by analyzing the use of this type of knowledge by state actors in the BBNJ Negotiations. More specifically, I focus on the use of TK in the discussions about the definitions of ABMTs and MPAs to

determine if state actors can accommodate their divergent interests. The thesis aims to answer the following research question: *How and why do state actors use TK for defining ABMTs and MPAs in the BBNJ Negotiations?*

This thesis is based on empirical research conducted at the negotiations themselves by using ethnographic methods. I conceptualize the space of the negotiations as a field in relation to Bourdieu (1982/1991) and apply other concepts developed by him, such as symbolic struggles, act of naming and symbolic capital to elucidate state actors' struggles to impose a certain vision of ABMTs and MPAs.

The United Nations postponed the fourth and final Intergovernmental Conference (IGC) due to the COVID-19 pandemic (G.A. Dec. 74/543). This thesis, therefore, only focuses on the first three IGCs. To this end, I conducted digital ethnography of the IGC1 and used data collected by my colleagues of the European Research Council Project MARIPOLDATA through Collaborative Event Ethnography at the IGCs 2 and 3.

Digital ethnography constitutes a new and promising approach to study sites of environmental agreement making that allows scholars to stay at their home institutions while conducting research. It diminishes costs and opens a new window of opportunities.

In this thesis, I proceed in six parts. Firstly, I address the background of the BBNJ Negotiations, existing ABMTs and MPAs, and the place of TK in environmental negotiations and International Relations. I then elaborate on the theoretical approach and the methods and methodology that I applied. I continue to present the results, which I discuss in the following section. Finally, I present my conclusions.

State of the Art

In this section, I address 1) the background of the negotiations on an international legally binding instrument under UNCLOS on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Negotiations); 2) selected definitions of area-based management tools (ABMTs) and marine protected areas (MPAs); 3) instruments that designate ABMTs and MPAs; 4) international environmental targets and publications; 5) the relevance of Indigenous, local and traditional knowledge (TK) in global environmental politics; and 6) the place of TK in debates about science and knowledge in theories of International Relations.

UNCLOS, Ocean Protection and the BBNJ Negotiations

When the United Nations (UN) member states finished the text of UNCLOS in 1982, marine environmental protection focused on prevention and control of pollution (Scott, 2012, pp. 849-850). Therefore, UNCLOS establishes a general obligation for states to "protect and preserve the marine environment" (art. 192) and rules to prevent, reduce and control seas' pollution (part XII, sect. 5).

After UNCLOS entered into force, the focus of marine environmental protection shifted towards the notion of spatial and ecosystem management (Scott, 2012, pp. 849-850). The concept of MPAs is an "integral component" of this notion, but a treaty that can establish MPAs in areas beyond national jurisdiction (ABNJ) is still missing (Scott, 2012, pp. 850-851).

Preparation and Decision to hold the BBNJ Negotiations

In order to gather information about ABNJ, the UN General Assembly (G.A.) established the UN Ad Hoc Open-ended Informal Working Group to "study issues relating to

the conservation and sustainable use of marine biological diversity" in ABNJ (G.A. Res. 59/24, para. 73). This group recommended to regulate ABMTs, including MPAs, among other elements, for protecting marine biodiversity in the high seas (Letter from the Co-Chairs of the Ad Hoc Open-ended Informal Working Group, 2011, para. 1.b).

Following the recommendations of the UN Ad Hoc Open-ended Informal Working Group, the G.A. established a Preparatory Committee that would make suggestions on ABMTs, including MPAs, and on other elements of the treaty draft (G.A. Res. 69/292, para. 2). This resulted in the decision to hold the BBNJ Negotiations to create a treaty that would address ABMTs, including MPAs, among other elements (G.A. Res. 72/249, paras. 1, 2 and 7).

Selected Definitions of ABMTs and MPAs

I follow the definitions of ABMTs and MPAs offered by D. Johnson et al. (2018) to classify those mentioned by state actors in the BBNJ Negotiations.

D. Johnson et al. (2018) define *ABMTs* and *MPAs* as marine "spatial closures providing higher protection than is given to the surrounding area" (p. 112). ABMTs have a broad set of objectives and approaches because they focus on the economic sector, while MPAs aim at the long-term in situ conservation of ecosystems and therefore regulate all human activities (D. Johnson et al., 2018, p. 112).

I chose these definitions to guide my work because they enable me to classify existing marine spatial closures into ABMTs or MPAs consistently while avoiding potential institutional preferences.[1]

[1] D. Johnson et al. (2018) refer to the definitions of MPAs of the International Union for the Conservation of Nature and Natural Resources (IUCN), but IUCN does not use the term "ABMTs."

Instruments that Designate Marine Spatial Closures

Different international organizations designate ABMTs and MPAs in ABNJ (Ardron et al., 2014; Drankier, 2012; Harden-Davis et al., 2020; Gjerde et al., 2019; Gownaris et al., 2019). In the following, I describe relevant instruments that designate ABMTs and MPAs, the definitions of these marine spatial closures and the types of knowledge they build upon.[2]

1. CBD

The CBD aims to conserve and sustainably use biological diversity (art. 1). It refers to both science and TK as relevant sources of knowledge for conserving and sustainably using biological diversity (art. 17) and defines a *Protected Area* as "a geographically defined area which is designated or regulated and managed to achieve specific conservation objectives" (art. 2).

Following D. Johnson et al. (2018), Protected Areas in the marine environment are MPAs because they offer higher protection than their surrounding areas and aim at the in situ conservation of marine ecosystems.

The CBD identifies different types of marine spatial closures, such as the Ecologically or Biologically Significant Marine Areas (EBSAs) and Other Effective Area-Based Conservation Measures (OECMs).

1.1. EBSAs

The CBD COP summarized and reviewed the "best available scientific studies on priority for biodiversity conservation in marine areas" (decision IX/20, p. 1). It encourages Parties and the Executive Secretary to integrate "traditional, scientific, technical and technological knowledge of indigenous and local communities" for the identification of

[2] State actors also mentioned these marine spatial closures in the negotiations as it will be described in the results section.

EBSAs (decision IX/20, para. 27) and establishment of MPA Networks (decision X/29, para. 47).[3] Moreover, the CBD COP urges Parties to "achieve long-term conservation, management and sustainable use" of marine biodiversity (decision X/29, para. 15).

Annex II of the decision IX/20 defines *EBSAs* as marine areas that "provide important services to one or more species/populations of an ecosystem or to the ecosystem as a whole, compared to other surrounding areas or areas of similar ecological characteristics" or meet the criteria in annex I.[4]

Following D. Johnson et al. (2018), EBSAs are MPAs because they offer higher protection than their surrounding areas and aim at the long-term in situ conservation of marine ecosystems.

1.2. OECMs

The CBD COP decision 14.8 provides guidance on integrating Protected Areas and OECMs,[5] as well as information on achieving equitable governance in these areas (paras. 1 and 5).

This decision promotes the use of "the best available scientific information" and TK for identifying, managing and monitoring OECMs (decision 14.8, annex III, para. A.l). Moreover, the decision 14.8 promotes to summarize and "harmonize various types of information," including TK, and train scientists to use TK "respecting the appropriate cultural contexts" (annex III, paras. C.3.1.b and C.3.3.e).

[3] To my knowledge, only IUCN provides a definition of a network of MPAs, which is a "collection of individual MPAs or reserves operating cooperatively and synergistically, at various spatial scales, and with a range of protection levels that are designed to meet objectives that a single reserve cannot achieve" (Laffoley et al., 2008, p. 12).

[4] These scientific criteria are uniqueness or rarity; special importance for life-history stages of species; importance for threatened, endangered or declining species and/or habitats; vulnerability, fragility, sensitivity, or slow recovery; biological productivity; biological diversity; and naturalness (decision IX/20, annex I).

The CBD COP decision 14.8 defines *OECMs* as

> a geographically defined area other than a Protected Area, which is governed and managed in ways that achieve positive and sustained long-term outcomes for the in situ conservation of biodiversity, with associated ecosystem functions and services and where applicable, cultural, spiritual, socio-economic, and other locally relevant values (para. 2).

Following D. Johnson et al. (2018), marine OECMs are a combination of ABMTs and MPAs because they offer higher protection than their surrounding areas, safeguard socio-economic activities and aim at the long-term in situ conservation of marine ecosystems.

2. International Maritime Organization

The convention of the International Maritime Organization (IMO) sets the standards for preventing and controlling marine pollution from ships (art. 1.a). To this end, the Marine Environment Protection Committee of the IMO acquires "scientific, technical and any other practical information on the prevention and control of marine pollution from ships" (IMO's Convention, art. 38.c). However, it does not use TK.

Furthermore, the IMO adopts guidelines to designate marine spatial closures, such as the Resolution A.982(24).

2.1. Resolution A.982(24) and Particularly Sensitive Sea Areas

The IMO Resolution A.982(24) considers the interests of IMO Members "on the basis of relevant scientific, technical, economic, and environmental information regarding the area at risk of damage" (para. 1.4.2). However, it does not refer to TK.

This resolution designates Particularly Sensitive Sea Areas (PSSAs), which are areas in need of special protection because of their "significance for recognized ecological, socio-

economic, or scientific attributes" that might be damaged by international shipping (resolution A.982(24), para. 1.2).

Following D. Johnson et al. (2018), PSSAs are ABMTs because they offer higher protection than their surrounding areas and regulate the activities of the shipping sector.

2.2. International Convention for the Prevention of Pollution from Ships and Special Areas

The IMO drafted the International Convention for the Prevention of Pollution from Ships (MARPOL), which sets the obligation "to prevent the pollution of the marine environment by discharge of harmful substances or effluents containing such substances" by ships (MARPOL, art. 1.1).

MARPOL uses scientific knowledge to protect the oceans from ships' pollution and promotes scientific and technical co-operation (art. 17.1). Moreover, it does not refer to TK.

MARPOL designates Special Areas (SAs), which are marine areas that due to its "oceanographical and ecological condition and to the particular character of its traffic" require protection from oil pollution (Annex I, Regulation 1.10, para. 10) and from "noxious liquid substances, sewage, or garbage" (MARPOL Res. A.1087(28), para. 2.1).

Following D. Johnson et al. (2018), SAs are ABMTs because they offer higher protection than their surrounding areas and regulate the discharge of substances of the shipping sector.

3. International Seabed Authority

The International Seabed Authority (ISA) is the "organization through which State Parties (…) organize and control activities in the Area," (UNCLOS, art. 157.1), which is the

"seabed and ocean floor and subsoil thereof, beyond the limits of national jurisdiction" (UNCLOS, art. 1.1).

The ISA shall protect and conserve the Area's natural resources and prevent damage to the marine environment's flora and fauna (UNCLOS, art. 145). It promotes scientific research in the Area and disseminates the results (UNCLOS, art. 143). However, it does not refer to TK.

This institution issues decisions that guide its work, such as those on Regional Environmental Management Plans (REMPs) and Areas of Particular Environmental Interest (APEIs).

3.1. REMPs and APEIs

REMPs are "instruments of environmental policy" (Council of the ISA Note 25/C/4, paras. 2 and 4) that aim at protecting the seabed by designating networks of APEIs (ISA, 2019, p. 16).

The ISA uses scientific spatial analysis and scientific principles to develop networks of APEIs (ISA, 2019, pp. 16 and 20) and it does not use TK.

APEIs lack a definition but the ISA describes them as "large areas with self-sustaining populations and a broad range of habitat variability" that "should not be affected directly by physical activity or indirectly by mining effects" (Legal and Technical Commision of the ISA Recommendation 17/LTC/7, para. 25).

Following D. Johnson et al. (2018), APEIs are a combination of ABMTs and MPAs as they offer higher protection than their surrounding areas, regulate mining activities and aim at the in situ conservation of marine ecosystems.

4. International Union for the Conservation of Nature and Natural Resources

The International Union for the Conservation of Nature and Natural Resources (IUCN) is constituted by states, NGOs and Indigenous People's organizations, among others (IUCN, 2016, statutes, parts I and III.4).

It assists societies in conserving biodiversity and promotes a fair and sustainable use of nature through resolutions (IUCN, 2016, statutes, part II; rules of procedure of the World Conservation Congress, part IV.13), such as those pertinent to MPAs and Protected Areas.

4.1. MPAs

Resolution 17.38 defines *MPAs* as "any area of intertidal or subtidal terrain, together with its overlying water and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment" (art. 2.b). Moreover, IUCN indicates that the goal of MPAs is to conserve the biodiversity and productivity of the oceans (Kelleher, 1999, p. xix).

IUCN highlights that science is helpful to "understand the functioning of the ecosystem" (Kelleher, 1999, p. 57) and proposes to involve Local Communities in the development and implementation of marine conservation programs on the grounds of legitimacy (IUCN Res. 19.46, art. 1.b; Kelleher, 1999, p. 29).

Moreover, IUCN argues "the rights of indigenous peoples may affect tourism" but "local tradition can also contribute to tourism and to the economic welfare of local communities" (Kelleher, 1999, p. 24). Therefore, IUCN uses science and TK to assist in the designation of MPAs.

Following D. Johnson et al. (2018), IUCN promotes to designate marine spatial closures that can be classified as MPAs because they offer higher protection than their surrounding areas and aim at the in situ conservation of marine ecosystems.

4.2. Protected Areas

IUCN describes a *Protected Area* as "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Dudley, 2008, p. 8).

Protected Areas aim at the in situ conservation of ecosystems and include "traditional management practices" (Dudley, 2008, pp. 8-9). Moreover, they should conserve natural landscapes for "cultural, spiritual and scientific purposes" and facilitate "low-impact scientific research" (Dudley, 2008, p. 12). Therefore, Protected Areas use science and TK as relevant sources of knowledge.

Following D. Johnson et al. (2018), all IUCN Protected Areas that are located in marine areas are MPAs because they offer higher protection than their surrounding areas, regulate all human activities and aim at the in situ conservation of ecosystems.

IUCN classifies Protected Areas into categories that denote their different management approaches (Dudley, 2008, p. 12). The following categories are relevant for this thesis.

4.2.1. Category Ia: Strict Nature Reserves

IUCN defines *Strict Nature Reserves* as areas that safeguard biodiversity and other natural features, where human use is "strictly controlled and limited to ensure protection of the conservation values" (Dudley, 2008, p. 13).

This category of Protected Areas pursues to "secure examples of the natural environment for scientific studies" and "conserve cultural and spiritual values associated with nature" (Dudley, 2008, p. 13). Moreover, Strict Nature Reserves could be "of religious or

spiritual significance" and therefore have sites for religious purposes (Dudley, 2008, p. 13). They build upon science and not on TK but respect and protect traditions of IPLCs.

4.2.2. Category Ib: Wilderness Areas

Wilderness Areas are "large unmodified or slightly modified areas, retaining their natural character and influence, without permanent or significant human habitation, which are protected and managed so as to preserve their natural condition" (Dudley, 2008, p. 14).

They protect long-term environmental conservation, "enable indigenous communities to maintain their traditional wilderness-based lifestyle and customs," safeguard "cultural and spiritual values" and allow for low impact research (Dudley, 2008, p. 14). Wilderness Areas build upon science and not on TK. However, they respect and protect traditions and values of IPLCs.

4.2.3. Category II: National Parks

National Parks are big natural areas that preserve "large-scale ecological processes (…) species and ecosystems" and support "spiritual, scientific, educational, recreational and visitor opportunities" (Dudley, 2008, p. 16).

This type of Protected Areas conserves unique natural processes, preserves ecosystems and considers "the needs of indigenous people and local communities, including subsistence resource use," as long as they are environmentally sound (Dudley, 2008, p. 16). Therefore, National Parks build upon science not on TK but they respect and protect traditions of IPLCs that do not harm the environment.

5. Regional Fisheries Management Organizations

Regional Fisheries Management Organizations (RFMOs) are international bodies through which states develop and implement conservation and management measures that may "target specific species and ecosystems" (FAO, 2016, p. 1). They designate marine spatial closures to protect and manage fish stocks, including those recommended by the Food and Agriculture Organization (FAO).

5.1. FAO and the Temporal and Spatial Restrictions or Closures

The FAO (2009) developed guidelines for fisheries that might contact the seafloor with the fishing gear and catch species that have a long reproduction cycle (p. 2). These guidelines set standards to ensure the long-term conservation and sustainable use of deep seas' biodiversity and prevent damage on vulnerable marine ecosystems (FAO, 2009, pp. 2-3).[6]

The FAO (2009) recommends states and RFMOs to use "the best available scientific and technical information" to designate an ecosystem as vulnerable and to manage activities of deep sea fisheries that could negatively affect these ecosystems (pp. 10-17). Furthermore, states and RFMOS should manage deep sea fisheries by considering "fishers' knowledge, where appropriate" (FAO, 2009, p. 4). Therefore, states and RFMOs would use TK if fishers belong to an Indigenous or Local Community.

The FAO (2009) further recommends states and RFMOs to close marine areas where vulnerable marine ecosystems "are known or likely to occur (…) until appropriate conservation and management measures have been established" (p. 15). These measures may include, among others, "temporal and spatial restrictions or closures" (FAO, 2009, pp. 16-17).

[6] A marine ecosystem is a vulnerable marine ecosystem when it 1) is unique or rare, 2) is functionally significant for the habitat, 3) is fragile, 4) recovers slowly and 5) is structurally complex (FAO, 2009, pp. 9-10).

Although the FAO pursues the long-term in situ conservation of marine ecosystems, temporally and spatially closed areas are ABMTs according to the definition by D. Johnson et al. (2018) because they offer higher protection than their surrounding areas and regulate the fishing sector.

Table 1

Resume of relevant marine spatial closures

Framework	Marine Spatial Closure	Type	Science	TK	Relevance of TK
CBD	Protected Areas	MPA	Yes	Yes	Primary source of knowledge
	EBSAs	MPA	Yes	Yes	Primary source of knowledge
	OECMs	Combination of ABMT and MPA	Yes	Yes	Primary source of knowledge
IMO	PSSAs	ABMT	Yes	No	n/a
ISA	APEIs	Combination of ABMT and MPA	Yes	No	n/a
IUCN	MPAs	MPA	Yes	Yes	Primary source of knowledge
	Protected Areas	MPA	Yes	Yes	Primary source of knowledge
	Strict Nature Reserves	MPA	Yes	Yes	Secondary source of knowledge
	Wilderness Areas	MPA	Yes	Yes	Secondary source of knowledge
	National Parks	MPA	Yes	Yes	Secondary source of knowledge
MARPOL	Special Areas	ABMT	Yes	No	n/a
RFMOs	Temporal and spatial restrictions or closures	ABMT	Yes	Yes	Secondary source of knowledge

International Targets and Publications

In the following, I describe relevant international targets and publications that promote the use of science and TK for environmental management and protection.

The Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets

The CBD COP decision X/2 created the *Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets* (Aichi Targets), whose purpose is to stop biodiversity loss by 2020 (annex, para. 12). It urges Parties to generate and use science to monitor biodiversity and ecosystems (decision X/2, para. 3.g).

Target 11 states that "at least 17 per cent of terrestrial and inland water areas, and 10 per cent of coastal and marine areas" should be conserved through "systems of protected areas and OECMs" (CBD, decision X/2, annex, target 11). Moreover, target 18 highlights that TK and practices of IPLCs being "relevant for the conservation and sustainable use of biodiversity" should be respected and used to conserve biodiversity (CBD, decision X/2, annex, target 18). Therefore, the Aichi Targets build upon science and TK.

Marine Spatial Planning: A Step-by-Step Approach toward Ecosystem-Based Management

The Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization (IOC-UNESCO) drafted this guide to help states operationalize *marine spatial planning*, which is "a public process" to spatially and temporally allocate "human activities in marine areas to achieve (…) social objectives" and "sustainable economic development and biodiversity conservation" (Ehler & Douvere, 2009, pp. 10-18).

Ehler & Douvere (2009) further highlight that marine spatial planning uses scientific criteria to 1) identify biologically and ecologically important areas, 2) improve the "protection of cultural heritage," and 3) identify and preserve "social and spiritual values related to ocean use," among others (p. 21).

To achieve social objectives, marine spatial planning involves stakeholders, which are "individuals, groups, or organizations that are (or will be) affected, involved or interested (positively or negatively) by marine spatial planning measures" (Ehler & Douvere, 2009, p. 45). Indigenous People might be affected and should be involved in the process (Ehler & Douvere, 2009, p. 43). Moreover, they would broaden "the capacity of the planning team" by enabling the use of secondary information, such as TK (Ehler & Douvere, 2009, p. 44).

Ehler & Douvere (2009) indicate that data sources for marine spatial planning include, among others, scientific publications and advice, as well as TK, which "is increasingly recognized as a valuable source of information for spatial planning" (p. 50). It also mentions PSSAs and all the IUCN Categories of Protected Areas as examples of spatial management measures (Ehler & Douvere, 2009, p. 74).[7] In other words, the IOC-UNESCO uses science as a primary source of knowledge to protect the marine environment and cultural values. Additionally, it uses TK as a primary or secondary source of knowledge when following the IUCN Categories of Protected Areas.

A Guide to Evaluating Marine Spatial Plans

The IOC-UNESCO developed this guide to instruct managers and stakeholders on monitoring and evaluating marine management plans (Ehler, 2014, p. 4). That is to say, the

[7] I do not elaborate on all the categories of IUCN Protected Areas in this thesis because I only focus on the categories that state actors mentioned in the negotiations.

purpose of this guide is to teach managers and stakeholders how to measure the effectiveness of marine spatial plans (Ehler, 2014, p. 2).

The guide builds on both science and TK as primary sources of knowledge. It indicates that evaluation criteria should be "based on well-accepted scientific theory" (Ehler, 2014, p. 45) and that "the production of results from scientific research" helps reach the goals of managed marine areas (p. 47). It also highlights that establishing an "information base" of natural and social sciences contributes to marine management and conservation, as well as identifying, documenting, and mapping EBSAs (Ehler, 2014, p. 48).

The IOC-UNESCO highlights that the "participation of stakeholders in the decision-making processes" of marine spatial planning also helps achieve environmental management (Ehler, 2014, p. 47). Moreover, it states that indicators of environmental awareness include an enhanced respect and understanding of TK, among others (Ehler, 2014, p. 51).

Sustainable Development Goals

The Sustainable Development Goals (SDGs) promote economic and social sustainable development, as well as nature's protection (G.A. Res. 70/1, paras. 2 and 3).

SDG14 aims to "conserve and sustainably use the oceans, seas and marine resources for sustainable development" by using scientific information and developing science and research capacity to restore the ecological balance of the oceans (G.A. Res. 70/1, target 14.4 and 14.a). Finally, SDG14 does not refer to TK.

The First Global Integrated Marine Assessment: World Ocean Assessment I

The First Global Integrated Marine Assessment: World Ocean Assessment I (World Ocean Assessment) is the result of the first cycle of a regular global scientific report and

assessment of the oceans, including socioeconomic aspects (Inis & Simcock, 2017, p. 8). While it builds upon science, it considers TK as well. For instance, it indicates that TK is an additional resource to help islands adapt to sea-level rise (Byrne et al., 2017, p. 94) and a cultural value that should be recorded "before it is lost" (Bernal, 2017, p. 178).

Table 2

Resume of international targets and publications

International Targets and Publications	Relevance of TK
Aichi Targets	Primary source of knowledge to stop biodiversity loss
Marine Spatial Planning: A Step-by-Step Approach toward Ecosystem-Based Management	Secondary source of knowledge to temporally and spatially allocate human activities in marine areas
A Guide to Evaluating Marine Spatial Plans	Primary source of knowledge to identify marine spatial closures
SDGs	n/a
World Ocean Assessment	Secondary source of knowledge to adapt to ocean-related environmental changes, as well as a cultural value

TK in Global Environmental Politics

TK is "a living body of knowledge (…) passed down through generations continuously and in locally meaningful contexts" (Mulalap et al., 2020, p. 3). It is often portrayed as inferior to science (Schlosberg & Carruthers, 2010; Suiseeya, 2014) but its relevance has increased in global environmental politics as exemplified by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES).

The goal of the IPBES is to improve interlinks of both science and TK with policy and decision making "for the conservation and sustainable use of biodiversity" (IPBES Dec. 2/4, para. A.2, A.2 and C.3). It developed a conceptual framework to achieve a "shared working understanding across (…) knowledge systems" (IPBES Dec. 2/4, para. A.3). To fulfill this purpose, the conceptual framework highlights points of convergence and divergence between concepts of science and TK. For instance, it indicates what *nature* entails in scientific terms and provides TK concepts that denote similar notions (IPBES Dec. 2/4, para. B.1.6); and it acknowledges that the meaning of *good quality of life* varies across societies and groups within societies (IPBES Dec. 2/4, para. B.1.15), such as Indigenous People and Local Communities (IPLCs), who are holders of TK (Mulalap et al., 2020, p. 3).

IPLCs in International Environmental Negotiations and the BBNJ Negotiations

Indigenous People are the descendants from populations that have survived conquest or colonization and retain cultural practices of their ancestors (Mulalap et al., 2020, p. 2). On the contrary, *Local Communities* are communities that have roots in a country, might be considered a culture of the past and have not survived conquest or colonization (Mulalap et al., 2020, p. 2).

IPLCs find themselves in an underprivileged position when it comes to environmental protection. They do not have a voice in decision-making processes of environmental policy and face most of the biodiversity conservation costs (Suiseeya, 2014, pp. 102-103). This jeopardizes their "ability to continue and reproduce the[ir] traditions (…) and relationships with nature" (Schlosberg & Carruthers, 2010, p. 13).

In response, IPLCs participate in international environmental negotiations (Suiseeya, 2014), such as the meetings of the Convention on Biological Diversity (CBD) and the United Nations Framework Convention on Climate Change (Belfer et al., 2019; Ferrari et al., 2015;

Suiseeya, 2014; Vierros et al., 2020). In these meetings, IPLCs engage in linguistic "struggles that introduce new ideas, [and] values," and stimulate changes in international norms to achieve environmental justice (Suiseeya, 2014, pp. 103- 104).

"Environmental justice refers to the fair distribution of environmental risks, burdens, and benefits between populations, as well as to the meaningful involvement of all people with regards to the development, implementation, and enforcement of environmental policies and laws" (Sayegh, 2021, p. 88). It entails procedural, distributional and recognitional dimensions (Suiseeya, 2014, p. 104). Therefore, individuals or groups achieve environmental justice when they significantly participate in decision-making processes, obtain a fair distribution of burdens and benefits, and different identities and ways to create knowledge are acknowledged (Suiseeya, 2014, p. 104).

IPLCs are underrepresented in the BBNJ Negotiations (Mulalap et al., 2020; Vierros et al., 2020) where state actors introduce TK. This knowledge system is relevant for the future treaty because it 1) provides knowledge on the connectivity across national and international waters (Mulalap et al., 2020, p. 4), 2) informs science on conservation and management of marine areas and species (Huntington, 2000; Mulalap et al., 2020; Vierros et al., 2020), and 3) introduces different ways of relating to the oceans and marine biodiversity (Laffoley et al., 2017; Mulalap et al., 2020; Nursey-Bray & Jacobson, 2014).

TK and Alternative Understandings of Biodiversity

To illustrate how TK constructs alternative understandings of biodiversity, I describe a Colombian Local Community's case study researched by Escobar (1998).

Social scientists have shown how Local Communities in the global South understand biodiversity in different terms to those of the dominant culture (Escobar, 1998, p. 61). They signify and use the natural environment in different and specific ways (Escobar, 1998, p. 61).

For instance, Local Communities of the global South think of their societies as part of nature and not aside from nature (Escobar, 1998, p. 61).

State actors fail to understand TK on its own terms and use it as a tool to promote their own interests (Escobar, 1998, p. 61). When Local Communities struggle to be properly understood by the dominant culture, they engage in cultural politics by challenging the dominant culture and trying to redistribute power (Escobar, 1998, p. 64).

The 140 local organizations network "Process of Black Communities" is an example of struggle for constitutional rights of black communities and their territories in the Colombian Pacific region (Escobar, 1998, p. 64). In order to defend their life project, activists of the Process of Black Communities seek to redefine "biodiversity" to incorporate their views on culture-based development (Escobar, 1998, p. 61). They have defined "biodiversity" as "territory plus culture," where different cultures and ecology determine the cultural and economic practices of the different communities of the Process of Black Communities (Escobar, 1998, p. 70). This is an "attempt to explain biological diversity from inside the eco-cultural logic" of the region (Escobar, 1998, p. 71).

Place of TK in Debates about Science and Knowledge in Theories of International Relations

TK has limited relevance in the debates about science and knowledge in International Relations, but it plays an increasing role in environmental negotiations and biodiversity assessments (Ferrari et al., 2015; Hughes & Vadrot, 2019; McElwee et al., 2020). This is due to the fact that IPLCs have struggled over decades to participate and be recognized in international environmental negotiations (Belfer et al., 2019; Suiseeya, 2014; Suiseeya & Zanotti, 2019).

As a result of these struggles, TK is recognized as useful to fill gaps in scientific knowledge on terrestrial and marine biodiversity (D. E. Johnson et al., 2018; Ferrari et al., 2015; Huntington, 2000; McElwee et al., 2020), enhance biodiversity conservation policies (McElwee et al., 2020) and provide knowledge, as well as cultural and spiritual practices that are in harmony with the oceans and conserve and sustainably use marine biodiversity (Dunn et al., 2017; Harden-Davies et al., 2020; Laffoley et al., 2017; Mulalap et al., 2020; Nursey-Bray & Jacobson, 2014; Vierros et al., 2020). However, International Relations' theories have only engaged with the place of science in environmental negotiations.

The majority of International Relations' theories consider science as a neutral input that helps international environmental policymakers draft more informed policies:[8] Scholars have indicated that science has been perceived as universal and neutral knowledge for a long time (Forsyth, 2014, p. 218; Karvonen & Brand, 2014, p. 217).

Researchers have followed the epistemic communities' approach to explain the role science in International Relations and have complemented it with insights from Science and Technology Studies, discursive approaches and the epistemic selectivities' concept.

Epistemic Communities' Approach

This approach exposes the epistemic communities' potential to influence international environmental policymakers. Epistemic communities are networks of knowledge-based experts of different disciplines that possess scientific and technical expertise (Haas, 1992, p. 3). States seek the advice of epistemic communities under conditions of uncertainty in international policy coordination (Haas, 1992, p. 15), where policymakers demand more

[8] These theories are institutionalism, realism, neorealism, regime theory, interdependence theory, functionalism and neo-functionalism.

environmental information because of the need to agree on decisions that favor common goals (Haas, 1992, pp. 3-4).

Epistemic communities' members reach consensus on the knowledge they consider to be true and transmit it to policymakers (Haas, 1992, p. 23). They influence policymakers because they can 1) distinguish environmental issues' causes and effects and the social consequences of different courses of action, 2) identify connections with other issues and possible political scenarios, 3) help redefine the states' self-interests by elucidating the environmental issues' causes and effects, and 4) support the policies' formulation, introduction and selection (Haas, 1992, p. 15-16).

This approach has been criticized, for instance, by Lidskog & Sundqvist (2015) because it rests upon the assumptions that 1) epistemic communities are independent from policymaking processes and 2) the credibility of science lies on the consensus reached by the members of the epistemic communities. Different scholars have pursued to challenge the epistemic communities' approach and offer different understandings of the role of science in International Relations.

Beyond the Epistemic Communities' Approach

Scholars of approaches inspired by Science and Technology Studies argue that the credibility of science depends "on the persuasive powers of the individuals and institutions that speak for science rather than the (…) consensus" of scientific communities (Lidskog & Sundqvist, 2015, pp. 9-10). Additionally, contested science gains credibility in a policymaking process while a contested policy gains acceptance through science (Lidskog & Sundqvist, 2015, p. 6).

To study international environmental negotiations, recent studies increasingly apply concepts of Science and Technology Studies, such as boundary objects, which are flexible

objects that adjust to the needs of different social worlds without losing a common recognizable structure among two or more social worlds (Star & Griesemer, 1989). They are "tools for integrating different groups" (Lidskog & Sundqvist, 2002, p. 92). For instance, Gray et al. (2014) conceptualize MPAs as a "boundary object, flexible enough to enable diverse groups with divergent agendas to align at the CBD around the goal of increasing MPA coverage (…) As a boundary object, the MPA concept accommodates their distinct, sometimes conflicting, scalar narratives and associated agendas" (pp. 65-66).

Approaches inspired by Science and Technology Studies are useful to explain the perceived authority of science in environmental negotiations and the way actors reach consensus on controversial issues.

Scholars have also applied a discursive approach to explain the role of science in International Relations. They argue that science is a social process that validates discourses (Liftin, 1994, p. 8), leading to highly scientific debates in international environmental policymaking and turning scientists into political actors (Liftin, 1994, p. 9). To communicate science understandably to policymakers, scientists depend on knowledge brokers, who have political power because they favor certain discourses over others (Liftin, 1994, p. 40).

The discursive approach is useful to explain 1) the persuasive and argumentative power of scientific discourses and 2) the influence of those who communicate scientific knowledge to policymakers.

Finally, researchers have also aimed to explain how policymakers strategically use knowledge to protect their interests. The epistemic selectivities' concept addresses this issue by explaining how actors use knowledge partially and selectively to develop and implement a path (Vadrot, 2017, pp. 69-70).

Epistemic selectivities are patterns of selection in political institutions that support "specific forms of knowledge, problem perceptions, and narratives over others" (Vadrot,

2014, p. 77). They echo hegemonic ideas and shape how actors understand the object to be governed during the establishment of institutions (Vadrot, 2014). Societal power relations in political institutions form and reproduce epistemic selectivities as a policy mode to promote certain interests (Vadrot, 2014, p. 77). Thus, it is not epistemic communities that help shape environmental policies but the patterns of selection in political institutions.

The concept of epistemic selectivities is useful to 1) explain how and why particular understandings of environmental problems persist in time and 2) analyze "the dominant driving forces of societal development that cause environmental problems by relating them to (…) policymaking" (Vadrot, 2014, pp. 80-81).

Theoretical Approach

While the epistemic communities' approach has made an essential contribution to study the role of science in International Relations, it is not suitable for my research. Indigenous, local and traditional knowledge (TK) is not a universal knowledge system. Each Indigenous People and Local Community (IPLC) has gathered different knowledge and experience (Díaz et al., 2015). Therefore, members of different IPLCs do not reach consensus on the veracity of TK and transmit it to policymakers.

Moreover, approaches inspired in Science and Technology Studies, discursive analysis and the epistemic selectivities' concept are not suitable for my research because I do not focus on 1) how state actors reach consensus on marine spatial closures, 2) the power of persuasion of delegates and the role of knowledge brokers, and 3) on hegemonic narratives, discourses or problem perceptions. Instead, I focus on the struggles of state actors for including a non-hegemonic knowledge system in the definitions of ABMTs and MPAs.

To this end, I follow a sociological understanding of International Relations by applying Pierre Bourdieu's concepts to explain my object of study. I consider that the site of the Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction *(*BBNJ Negotiations) is a field of struggles. State actors aim to protect their interests in this field by making claims to both science and Indigenous, local and traditional knowledge (TK) through linguistic exchanges.

Language plays a relevant role in the BBNJ Negotiations because firstly, power relations take place through language (Bourdieu, 1982/1991, p. 37) and secondly, the BBNJ Negotiations aim at drafting a new treaty text.

Using Bourdieu's concepts allows me to understand how state actors protect their interests by promoting TK and if the definitions of area-based management tools (ABMTs) and marine protected areas (MPAs) that they discuss represent all interests in the field.

Social World, Knowledge and Symbols

Bourdieu conceptualizes the social world as the site of the ongoing struggle to "tell the truth" of the social world (Wacquant, 1989, p. 35). Individuals engage in the struggle of the social world because of the privileges they would gain by imposing their vision of the social world to others (Bourdieu, 1982/1991, p. 202).[9]

Knowledge shapes individuals' vision of the world. It is an "act of construction implementing schemes of thought and expression" (Bourdieu, 1979/2010, p. 469). Knowledge is a human construct that allows specific ways of communicating and understanding this world. It is nonobjective and resembles the world imperfectly.

Individuals construct and communicate their own visions of the world by using symbols, which are "instruments of knowledge and communication" that allow a consensus on the truth of the social world (Bourdieu, 1982/1991, p. 166). This consensus contributes to reproduce the social order (Bourdieu, 1982/1991, p. 166). Once individuals agree on a vision of the social world by using symbols, it is more challenging to change this vision.

Language, Symbolic Domination and Symbolic Imposition

As the social world is the site where individuals struggle to define its truth (Bourdieu, 1982/1991), language is the means of communication that allows us to transmit our knowledge-shaped visions of the social world. Language is not neutral but "an instrument of action and power" because "power relations between speakers or their respective groups"

[9] I understand the "vision of the social world" as the subjective apprehension of the social world, while I understand the "truth of the social world" as the socially accepted vision of the social world.

take place in linguistic exchanges (Bourdieu, 1982/1991, p. 37). As an instrument to define the truth of the social world, it is symbolically effective when one of the speakers fails to realize that he/she authorizes the other speaker to define the truth of the social world and, therefore, contributes to this truth's establishment (Bourdieu, 1982/1991, p. 116). In other words, the dominated speaker fails to understand that he/she turns the other speaker into the authorized speaker to define the truth of this world.

A symbolic domination is "a form of complicity which is neither passive submission to external constraint nor a free adherence to values" and it takes place when the dominated speaker submits to the authority that he/she gives to the authorized speaker (Bourdieu, 1982/1991, pp. 50-51). The symbolic domination occurs in "all linguistic exchanges" (Bourdieu, 1982/1991, p. 72). It is symbolic because it represents an abstract domination – a domination that takes place through language and not through physical violence.

On the contrary, symbolic imposition takes place when the authorized speaker takes the authority that is given to him/her by the dominated speaker, what allows the authorized speaker to impose constraints on the dominated speaker (Bourdieu, 1982/1991, p. 212). It is symbolic because it represents an abstract imposition that takes place through language and not through physical violence. Finally, symbolic domination is a pre-requisite for symbolic imposition to take place.

The Field

All linguistic exchanges, symbolic dominations and symbolic impositions take place on the field. The *field* is a "network, or a configuration, of objective relations between positions objectively defined" by their current and potential situation in the distribution of power (Wacquant, 1989, p. 39). It is a "field of forces" and a "field of struggles" whose goal

is to change the distribution of power, which is the field's structure (Bourdieu, 1982/1991, p. 171).

Speakers who engage in the field's struggles are agents. The "interplay of oppositions and distinctions" between agents confers the field a relational character (Bourdieu, 1982/1991, p. 185). That is to say, the field's struggles to shift power have meaning because of the agents' connections among each other. These connections are objective relations (Wacquant, 1989, p. 39) – because of the current power distribution and the potential gains and losses of eventual power redistributions – that guide the strategies agents follow to improve their positioning in the field (Wacquant, 1989, p. 40).

Field's agents aim to gain the power by acting and speaking in the name of groups of individuals that lack the education and power to define the reality (Bourdieu, 1982/1991, p. 190). Agents appropriate these groups' power, which they contribute to create by conferring these groups "a voice recognized as legitimate in the political field" (Bourdieu, 1982/1991, p. 190). In other words, agents in the field struggle for the power to establish their own view of the world over all other field agents and groups of people that they represent in the field.

Agents evaluate the power of the ideas they propose by assessing the power of the groups that recognize these ideas or that at least do not openly oppose them (Bourdieu, 1982/1991, p. 190). Therefore, the field of validation criteria of politics lies between "science and plebiscite" (Bourdieu, 1982/1991, p. 190). That is to say, between the "objective" truth – product of the application of systematic research methods – and the support of groups of individuals. However, the field's struggles might create political concepts that ordinary citizens might misunderstand depending on their level of involvement in the field (Bourdieu, 1982/1991, p. 172).

Symbolic Struggles

Field's struggles constitute *symbolic struggles* in which agents try to define the truth of this world (Bourdieu, 1982/1991, p. 181). They are symbolic because they involve symbolic imposition and domination. Agents' struggles aim to preserve or change the truth about the social world by preserving or changing classifications about the social world and institutions that support these classifications (Bourdieu, 1982/1991, p. 181).

The struggle for being the one to define the truth about the social world is "more and more strictly reserved for professionals and for the large units of production and circulation, thus excluding de facto the small independent producers" (Bourdieu, 1982/1991, p. 196). Universities, research centers or institutes could be "large units of production and circulation," whose knowledge is more effectively promoted by their own professionals than by independent ones. Independent professionals lack the support of these large units of production and circulation and might promote knowledge that these units did not create.

Professionals struggle to be recognized as the ones to define the truth of this world by 1) classifying knowledge as "unquestionable" and "questionable," 2) presenting themselves as holders of "unquestionable" knowledge, and 3) framing other professionals as holders of "questionable" knowledge (Bourdieu, 1982/1991, p. 145).

The Act of Naming

The act of naming helps agents establish the structure of this world because it shapes other agents' perception of the social world (Bourdieu, 1982/1991, p. 105). It is more efficient when it is authorized: when "generally recognized authorities" exercise "the power to name and to create the world through naming" (Bourdieu, 1982/1991, p. 105).

The act of naming is a political act because all constructions originate from a particular view of the social world and promote it (Bourdieu, 1982/1991, part II cited by Hughes, 2015, p. 88).

Symbolic Capital

The power of agents is proportional to their *symbolic capital*, which is the recognition they receive from a group (Bourdieu, 1982/1991, p. 106). An agent can act on others because his/her discourse has the symbolic capital of the group he/she represents (Bourdieu, 1982/1991, pp. 110-111). The power a group gives to an agent – because it recognizes this power on the agent – constitutes political capital, which is a form of symbolic capital (Bourdieu, 1982/1991, p. 192).

Methodology and Methods

To account for the role of Indigenous, local and traditional knowledge (TK) in the state actors' discussions about the definitions of area-based management tools (ABMTs) and marine protected areas (MPAs) at the Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Negotiations), this research draws on data collected through multi-sited ethnography, with a focus on digital and visual ethnography, as well as Collaborative Event Ethnography (CEE).

Multi-sited Ethnography

Multi-sited ethnography is the overarching ethnography mode of this research. It examines "the circulation of cultural meanings, objects, and identities in diffuse time-space" (Marcus, 1995, p. 97). By following connections and associations across different sites to account for the object of study (Marcus, 1995, p. 97), multi-sited ethnography brings related sites "into the same frame of study" and poses "their relationships on the basis of first-hand ethnographic research" (Marcus, 1995, p. 100).

Multi-site ethnographers develop comparative dimensions by following the object of study across different sites as a way "to posit logics of relationship, translation, and association among these sites" (Marcus, 1995, p. 102). As Marcus (1995) highlights

> The object of study is ultimately mobile and multiply situated, so any ethnography of such an object will have a comparative dimension that is integral to it, in the form of juxtapositions of phenomena that conventionally have appeared to be (or conceptually have been kept) 'worlds apart' (p. 102).

I argue that this research's ethnography is multi-sited from two perspectives: temporal and spatial. From a temporal perspective, the fieldsites of the three Intergovernmental Conferences (IGCs) differ because each session took place at a different point in time. From a spatial perspective, the fieldsite of the IGC1 is bounded to the website http://webtv.un.org/; while the IGC2 and IGC3's fieldsites are bounded to the negotiation room of the Plenary and Informal Working Groups of the BBNJ Negotiations at the United Nations (UN) Headquarters in New York.

By arguing that the IGC1's fieldsite is bounded to the website http://webtv.un.org/, I do not imply that it took place online. Rather, I indicate that I applied digital and visual ethnography to study the IGC1's videos of the Plenary and Informal Working Groups.

Digital and Visual Ethnography

The European Research Council Project MARIPOLDATA started working on November 2018, while the IGC1 of the BBNJ Negotiations took place on September 4-17, 2018. Due to the impossibility to go back in time and attend the IGC1 physically, I conducted digital and visual ethnography of the videos of the sessions of the Plenary and Informal Working Groups of the IGC1 that are available on http://webtv.un.org/.

Digital ethnography is a "way of doing ethnography that is part of and participates in a digital-material-sensory environment rather than simply ethnography *about* the digital" (Pink, 2014, p. 420, emphasis in original).

I identify the digital-material-sensory environment of my ethnographic research of the BBNJ Negotiations' IGC1 in the: 1) digital videos of the plenary and Informal Working Groups, 2) materiality of the instruments necessary to do this research (computer, headphones, internet connection), and 3) sensorial perception of the videos through my sight

and ear capacity. Moreover, I took fieldnotes on a matrix designed by MARIPOLDATA to study agreement-making sites.

While conducting digital ethnography of the videos of the Plenary and Informal Working Groups of the IGC1, I simultaneously conducted visual ethnography because I used digital technologies to access and research videos (Pink, 2013, p. 127). *Visual ethnography* is "a way of doing research that attends to digital visual methods and media as appropriate, and as part of a research process – rather than simply using visual methods for the sake of it" (Pink, 2013, p. 124).

Videos are "a rich source of data" that can be analyzed "long time after having been produced" (Tunçalp & Lê, 2014, p. 64). "A video is 'ethnographic' when its viewer(s) judge that it represents information of ethnographic interest" (Pink, 2013, p. 105). Ethnographic videos are not only visual but also an audiovisual medium (Pink, 2013, p. 104) "through which ethnographic knowledge is produced" (p. 183). Moreover, ethnographic videos allow us to research "from the perspective of being part of an environment" (Pink, 2013, p. 116).

The videos of the Plenary and Informal Working Groups of the BBNJ Negotiations' IGC1 are a rich source of data that allowed me to analyze the discussions on definitions of ABMTs and MPAs long after being produced. These videos offer an opportunity to do ethnography of the discussions that took place in the IGC1.

The videos of the Plenary and Informal Working Groups of the BBNJ Negotiations' IGC1 are ethnographic because they represent information of ethnographic interest: They allowed me to observe the state actors' discussions on the ABMTs and MPAs' definitions and perceive the voice tone of delegates while they discussed these definitions in the UN negotiation room in New York.

Moreover, these videos enabled me to research Plenary and Informal Working Groups as if I was present in the UN negotiation room in New York. They gave me the opportunity to access and study the site of the BBNJ Negotiations' IGC1.

Short Description of the Videos of the BBNJ Negotiations' IGC1. The Plenary and Informal Working Groups of the BBNJ Negotiations' IGC1 took place from 10:00 to 13:00 and 15:00 to 18:00 on the workdays between September 4 and September 17, 2018. Both session types – Plenary and Informal Working Groups – did not take place simultaneously but one at a time in the UN negotiation room in New York.

The UN recorded these sessions and uploaded the videos on the UN webpage http://webtv.un.org/, where anyone can access them. In total, the videos of the BBNJ Negotiations' IGC1 add up to 20 videos of approximately three hours each. I watched and took notes of 17 videos, while my colleagues watched and took notes of three videos.

Most videos had simultaneous translation to English. In case no translation was available, two other members of the research team and I took note and translated the statements that were given in French, Russian and Spanish. In two occasions, the simultaneous translation was not available for one Arabian and two Chinese statements. Nevertheless, these statements dealt with other package elements rather than ABMTs and MPAs and do not concern my research topic.

All videos of the IGC1 make a close up on the actor who is delivering a statement. This brings advantages and challenges to the ethnographic research. Regarding the advantages, the close up allowed me to see the speakers in an almost face-to-face experience. I could observe their clothes, facial expressions, appearance, mood and even the objects they had on the table (computers, papers, etc.). It had been challenging to observe state actors

closely while delivering a statement if I had physically attended IGC1. Moreover, I could observe the actors who were sitting around the speaker.

Regarding the disadvantages, the impossibility to watch the whole UN negotiation room did not allow me to appreciate the overall mood of actors in the room. I could not observe potential spontaneous reactions of actors in the room while others delivered a statement, but only appreciate the mood of closed-up speakers and the actors surrounding them.

The Fieldsite. Ethnographers define the fieldsite according to their research topic, avoid "arbitrarily or prematurely excluding" the online or offline arena (Garcia et al., 2009, p. 54), and consider how the research topic "involves different modes of communication or technological locations" (p. 56). The interests of researchers "bring the fieldsite for a particular study into being" (Hine, 2017, p. 25). In other words, researchers decide the boundaries of the fieldsite based on theoretical considerations (Tunçalp & Lê, 2014, p. 60).

For drawing these boundaries, ethnographers define the field's spatial and temporal dimensions (Tunçalp & Lê, 2014, p. 60). Spatially, I define the fieldsite of the BBNJ Negotiations' IGC1 as the domain http://webtv.un.org/.

Regarding the fieldsite's temporal dimension, I use archival data to reconstruct time – or overcome the temporal barrier –, which means that I use highly asynchronous media for my research (Tunçalp & Lê, 2014, p. 65). That is to say, the ethnographic research of the videos of the BBNJ Negotiations' IGC1 "breaks the linearity of time," as I do not have to attend the IGC1 physically to trace its events (Tunçalp & Lê, 2014, pp. 64-65).

Access to the Fieldsite. Getting access to online fieldsites is naturally different from getting access to physical ones. In digital contexts, entering the fieldsite means "being

able to capture interactions or behaviors of interest" (Beaulieu, 2017, p. 34); and visiting the fieldsite "focuses on experiential rather than physical displacement" (Hine, 2000, p. 45). I accessed the online fieldsite of the BBNJ Negotiations' IGC1 by listening to the statements of all actors, observing their behaviors and, therefore, experiencing the negotiations as if I was there.

Observer's Role. Digital ethnographers can avoid disclosing their identity in online fieldsites (Garcia et al., 2009, p. 53) and "lurk in a way that face-to-face ethnographers cannot readily achieve" (Hine, 2000, p. 48). Listening, observing and taking notes of the videos of the IGC1 allowed me to be an unobtrusive observer: I lurked on this online fieldsite. Moreover, I did not need to disclose my identity while conducting my research. This is still, however, an ethical research process as the videos of the BBNJ Negotiations' IGC1 are public data.

Field Notes and Texts. Since videos "completely capture the field, the need to take field notes is diminished, or at least altered. However, field notes are still essential to help the researcher catalogue, describe, and develop theories from their observations" (Garcia et al., 2009, p. 65). Field notes were essential for my research: I took comprehensive and specific field notes of the videos that helped me to experience the negotiations.

As a first step of data collection, I took notes of all the videos of the BBNJ Negotiations' IGC1 on the matrix developed by MARIPOLDATA where I recorded descriptions of all actors' statements, day and time when they were delivered, among other elements. Second, I identified the relevant statements for my research and completely transcribed them by observing and listening to the corresponding videos again.

Third, I collected the relevant official documents that state actors uploaded on https://papersmart.unmeetings.org/ga/bbnj-intergovernmental-conference/ to complement their verbal statements.[10] Fourth and final, in case the uploaded official document held information that the corresponding verbal statement lacked, I added it to my transcription.

I complemented the verbal statements with the uploaded official documents because "texts should be seen as ethnographic material which tells us about the understanding which authors have of the reality which they inhabit" (Hine, 2000, p. 51). Ignoring texts would "produce a highly partial account of cultural practices" (Hine, 2000, p. 51).

Moreover, the Facilitator of the Informal Working Group on ABMTs, including MPAs, encouraged delegates to upload their statements on https://papersmart.unmeetings.org/ga/bbnj-intergovernmental-conference/

Collaborative Event Ethnography

I used data collected by the MARIPOLDATA team at the IGCs 2 and 3 through Collaborative Event Ethnography (CEE).[11] Campbell et al. (2014) define *CEE* as a combination and modification of "rapid ethnographic assessment, team ethnography, and institutional or organizational ethnography" to study international negotiations as fieldsites (p. 1). Moreover, "CEE research conceptualizes each conference as a single node in a network of global environmental governance" (Hughes & Vadrot, 2019, p. 17). That is to say, each conference is unique for CEE.

At international environmental meetings, researchers can observe how actors "come together to negotiate policy, organize resistance, or promote organizational agendas" (Corson

[10] Papersmart is a platform of the UN where participants of negotiations upload their written statements and can access the statements of others.
[11] The IGC2 took place between March 25 and April 5, 2019, while the IGC3 took place during August 19-30, 2019.

et al., 2014, p. 23). Furthermore, "researchers can observe the processes that produce (or fail to produce) outcomes," as well as the politics of knowledge (Campbell et al., 2014, p. 4).

Through CEE, research teams collect data by observing international meetings, sub-meetings and more (Campbell et al., 2014). However, informal informals cannot be observed (Kamau et al., 2018) and their general outcomes are reported in open meetings, such as Informal Working Groups, where researchers continue to collect data.

Researchers use these data to analyze "how conventions work, how alliances are formed, and how particular ideas rise to prominence while others are rendered invisible" (Duffy, 2014, p. 125). Therefore, research teams can "trace the ways ideas develop and travel in meetings before they become official documents and announcements" (Duffy, 2014, p. 128) and "get at the story behind international level decision-making" (p. 129).

Data Analysis

The unit of analysis of this research is the sentence. I coded the state actors' statements in vivo and created categories for each Intergovernmental Conference (IGC). Appendix A provides the Atlas.ti reports, which indicate what specific codes belong to each category. In the following, I indicate the categories I created for each IGC, as well as their definitions.

IGC1

- **defining ABMTs-MPAs:** objects that refer to what area-based management tools (ABMTs) and marine protected areas (MPAs) are and entail.
- **objectives, principles, approaches:** objects that refer to goals, legal principles and approaches of the future treaty.

- **roles of state and non-state actors:** objects that refer to the sovereignty, control and rights of states, as well as the competence of international organizations.
- **science:** objects produced by science or that mainly find their source of credibility, authority or legitimacy in scientific knowledge.
- **traditional knowledge:** objects that allow the inclusion of Indigenous, local and traditional knowledge (TK) in the struggle to define marine spatial closures.
- **uncertainty and ambiguousness:** objects that refer to uncertain stages, undefined or unclear concepts.

IGC2

I used the categories of the IGC1 and created two additional categories because state actors made textual suggestions on the President's aid to negotiations during the IGC2, as well as comments that allowed different interpretations of the text. These new categories are the following:

- **aid to negotiations:** objects that refer to the text of the negotiations and to the treaty drafting process.
- **flexibility:** objects that allow change or different possibilities.

IGC3

I used the categories *defining ABMTs-MPAs*, *role of state and non-state actors* and *uncertainty and ambiguousness* and developed the following categories:

- **drafting process:** objects that refer to the treaty draft or the treaty drafting process.
- **negotiations:** objects that refer to the formalities and the process of the negotiations.

I developed these new categories because state actors and the Facilitator made comments that were more precise on the wording of articles that did not define ABMTs and MPAs, and referred to deadlines and modalities for delivering proposals on the treaty draft.

I interrelated the categories of each IGC by selecting the codes that would fall under Bourdieu's concepts as follows:

- **field**: actors associated with positions.
- **symbolic struggles**: meanings and roles of marine spatial closures, relevance of science vs. TK, policy implications.
- **symbolic capital**: relevant international instruments and marine spatial closures, scientific arguments in favor of TK, alignments and instances of agreement.

I discuss the combined meaning of the abovementioned concepts by applying an additional concept by Bourdieu: the act of naming. I do this to elucidate the state actors' actual struggle to impose a certain vision of the ABMTs and MPAs and separate it from the apparent struggle to draft a new treaty.

Results

I present the results of my analysis of the state actors' statements in each Intergovernmental Conference (IGC) and then across IGCs.

IGC1

Several state actors expressed their views regarding the definitions of area-based management tools (ABMTs) and marine protected areas (MPAs). Particularly, Brazil, the European Union (EU), the Group of 77 and China (G77 + China), Mauritius, Philippines, Seychelles and Tonga delivered statements that gave Indigenous, local and traditional knowledge (TK) a place in the discussions.[12] I focus on the statements of these state actors in this subsection.

The Field

Actors met in a negotiation room in the UN Headquarters in New York. Participants included 131 state and 67 non-state actors of which none openly represents Indigenous People and Local Communities (IPLCs) (List of Participants, 2018). They follow the rules of procedure of the G.A. (G.A. Res. 72/249, para. 18), meaning that they have to ask the President or Facilitator for the floor to make an intervention and wait for their trun. Moreover, individual states intervene after state groups and non-state actors after individual states (Aeschlimann & Regan, 2017, p. 47).

While state actors had different positions in the field, their positions can be classified into reach of the future treaty and States Parties, development of definitions of ABMTs and MPAs and creation of a network of marine spatial closures.

[12] Canada and China expressed their views on the definitions of ABMTs and MPAs without giving TK a role in the discussions (Informal Working Group on ABMTs, including MPAs, Sept. 13, 2018).

Reach of the Future Treaty and States Parties. By not opposing to discuss ABMTs and MPAs in the negotiations, state actors agreed on regulating these tools. Particularly, Seychelles expressed the big value it attaches to the regulation of marine spatial closures through the new treaty (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). That is, Seychelles directly depends on the oceans' health and aims to have an international framework that facilitates the establishment of marine spatial closures in ABNJ.

The G77 + China suggested that States Parties had the competence to identify measures to conserve "proposed" areas that lacked a competent organization (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). The group added that ABMTs and MPAs would achieve conservation and sustainable use of marine biodiversity "in an integrative manner" (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). In other words, the G77 + China proposed to provide States Parties with the competence to establish ABMTs and MPAs in specific marine areas that are not currently regulated; and it supported to limit the objectives of marine spatial closures to conservation and sustainable use. Additionally, states would have to simultaneously plan and establish ABMTs and MPAs in the same marine area – that is to say, in an "integrative manner"–, raising the standards for establishing marine spatial closures. In sum, the G77 + China tried to broaden states' powers, limit the objectives of marine spatial closures, as well as raise the standards for their creation to ensure that states kept exploiting the oceans as much as they did at the time of the IGC1.

Mauritius indicated that the new treaty would promote the "full implementation of existing obligations," as well as "cooperation and coordination across multiple organizations" (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). This Indian coastal state promoted to create norms that would facilitate compliance with the United Nations Convention on the Law of the Sea (UNCLOS), while not assuming new obligations, as it had not yet fulfilled existing ones.

Development of Definitions of ABMTs and MPAs. The G77 + China (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018) and Philippines (Informal Working Group on ABMTs, including MPAs, Sept. 13, 2018) promoted to define ABMTs and MPAs by considering definitions in legal frameworks. That is to say, these state actors proposed to draw from international instruments to avoid potential conflicts and ensure that delegates understand the origin and context of new definitions in the future treaty, as well as the consequences of drawing from particular definitions.

The EU, Philippines and Tonga proposed to develop common working definitions of marine spatial closures. More specifically, the EU proposed to have an MPA working definition that would "bring clarity in interpreting the provisions" and could potentially be included in the final treaty text (Informal Working Group on ABMTs, including MPAs, Sept. 13, 2018). Philippines proposed to develop a common working definition of ABMTs (Informal Working Group on ABMTs, including MPAs, Sept. 13, 2018) and Tonga suggested to discuss working definitions of ABMTs and MPAs (Informal Working Group, Sept. 13, 2018). By proposing to develop working definitions of ABMTs and MPAs, states structured the discussion around that firstly, it was necessary to develop a common understanding of what these tools are and entail and secondly, it was too early to fix the meaning of marine spatial closures in final definitions. Working definitions would not be automatically included in the future treaty but would provide a starting point for states to shape these definitions in the most favorable way to their particular interests throughout IGCs.

Brazil was more ambitious in this regard. Instead of aiming at developing a working definition, it highlighted that both ABMTs and MPAs lacked official definitions and pointed to the need of clearly defining MPAs to move forward in the negotiations (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). This shows that Brazil wanted to grasp

all possible scenarios it would face during the discussions on the definitions of ABMTs and MPAs. To this end, Brazil added that MPAs are "multipurpose" and that marine biodiversity in areas beyond national jurisdiction (ABNJ) needed "some sort of protection" (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). In a nutshell, Brazil pursued to structure MPAs as tools that simultaneously serve different purposes, including economic activities that could negatively affect marine biodiversity, such as fishing. Concluding from his voice tone, the Brazilian delegate tried to provide marine biodiversity in ABNJ the lowest level of protection to safeguard Brazil's economic interests.

Creation of a Network of Marine Spatial Closures. Tonga proposed to develop a global network of MPAs through the future treaty (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). The EU proposed to develop a global network of both MPAs and other effective area-based conservation measures (OECMs) (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018).[13] Tonga and the EU pursued to avoid that ABMTs and MPAs are only close to their national waters to distribute the economic impacts of marine spatial closures around the world. By including OECMs, the EU pursued to create more flexible networks and keep profiting from the oceans as much as possible.

Symbolic Struggles

In the discussions about the definitions of ABMTs and MPAs, Indian and Pacific coastal states and the G77 + China struggled against Brazil and the EU for enabling the use of TK as both a primary and secondary source of knowledge. In turn, Brazil and the EU struggled for preserving science as the primary source of knowledge.

[13] The EU mentioned the OECMs in the IGC1 in September 2018, when – to my knowledge – they were only mentioned in the Aichi Targets and lacked an explicit definition, enabling OECMs to be more flexible than MPAs. The CBD COP later reflected this flexibility in the CBD decision 14.8 of November 2018 that defines OECMs and explains what they entail.

TK as a Primary or Secondary Source of Knowledge. Indian and Pacific coastal states, as well as the G77 + China struggled for allowing the use of TK in marine spatial closures. This would ensure the protection of ocean-related cultural practices that would facilitate compliance with the future treaty and cheapen implementation costs to the aforementioned actors, who have reduced research capacities.

In order to use TK in ABMTs and MPAs, Seychelles indirectly supported the use of this knowledge system as a primary source by promoting the Ecologically or Biologically Significant Marine Areas (EBSAs) as successful spatial tools "backed by strong science and implemented globally" (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). Although it drew upon the science that underlies the EBSAs, Seychelles focused on promoting a model of marine spatial closure that uses both science and TK as primary sources of knowledge.

Seychelles also proposed to follow MPA' guidelines, decisions and definitions by the International Union for the Conservation of Nature and Natural Resources (IUCN) and the Convention on Biological Diversity (CBD) (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018),[14] which draw on both science and TK as primary sources of knowledge. Furthermore, the MPA guidelines and decisions of the IUCN and CBD encourage states to engage Indigenous People and Local Communities (IPLCs) in all the stages of the process of ABMTs and MPAs – designation, establishment and monitoring.

Mauritius mentioned that the future treaty would help reach the Aichi Target 11 (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018), which belongs to a group of goals that encourages states to use TK as a primary source of knowledge.

[14] Seychelles also referred to the United Nations Environmental Program (UNEP) MPA guidelines. To my knowledge, Jones et al. (2019) published a related UNEP guidance named *Enabling Effective and Equitable Marine Protected Areas: Guidance on Combining Governance Approaches* half a year after the IGC1. To avoid a misleading analysis of the data, I disregard the reference to the UNEP MPA guidelines.

Mentioning the Aichi Target 11 implies that TK can be used to protect marine and coastal areas. Mauritius did this to remind industrialized states about the increasing role TK plays in environmental protection and highlighted its relevance in the BBNJ Negotiations.

Mauritius also defined MPAs as a tool "restricting human activity for conservation intention, typically to protect natural or cultural resources" and claimed that the First Global Integrated Marine Assessment: World Ocean Assessment I (World Ocean Assessment) provided such definition (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). However, this assessment does not offer definitions of marine spatial closures. By aiming to protect "cultural resources," Mauritius pursued to 1) preserve TK as a primary source of knowledge in marine spatial closures, and 2) allow IPLCs to continue performing their ocean-related cultural practices.

Moreover, Mauritius urged the Facilitator to make a list of definitions of all existing marine spatial closures, including the EBSAs, CBD and IUCN (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). Mauritius promoted the use of TK as a primary source of knowledge by mentioning the CBD, which encompasses the Protected Areas, EBSAs and OECMs. It is unclear if Mauritius referred to the IUCN MPAs, which use TK as a primary source of knowledge, or IUCN Protected Areas, which use TK as both a primary and secondary source of knowledge. It is clear, however, that the reference to the IUCN and CBD constituted a struggle of Mauritius to secure TK a place in the discussions on the definitions of ABMTs and MPAs.

Philippines emphasized its preference for the CBD's MPA term (Informal Working Group on ABMTs, including MPAs, Sept. 13, 2018) in order to ensure that TK – together with science – be a primary source of knowledge in the MPA definition of the future treaty. Philippines also proposed to follow a management plan for ABMTs and MPAs that would determine the responsibilities of "all Parties and stakeholders" (Informal Working Group on

ABMTs, including MPAs, Sept. 13, 2018). By not specifying who the stakeholders are, Philippines enabled IPLCs to participate in the management of marine spatial closures and provide knowledge on ocean-related practices.

The G77 + China proposed to define MPAs on the basis of the CBD article 2 and to include a "precautionary principle/approach" and a "science-based approach" to avoid incompatible measures between the future treaty and those established by adjacent coastal states (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). The group promoted to use TK in the future instrument by mentioning the CBD article 2, while enabling the "precautionary principle/approach" and "science-based approach" to deauthorize TK because principles and approaches heavily influence the interpretation of legal texts. In other words, the G77 + China promoted to secure TK as a secondary source of knowledge in the discussions of definitions of ABMTs and MPAs.

Tonga suggested additional objectives for ABMTs and MPAs, such as "protecting aesthetic, cultural or natural values," among others (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). Protecting cultural values implies safeguarding the knowledge that underlies them and would, therefore, require the protection of TK as a body of practices and beliefs. Moreover, Tonga proposed developing a working definition of MPAs that would draw upon the Categories I and II of the IUCN Protected Areas (Official uploaded statement, Sept. 10, 2018). Under these categories, TK is a cultural value protected by science, which is the primary source of knowledge. In other words, Tonga promoted the use of TK as a secondary source of knowledge in ABMTs and MPAs.

Science as a Primary Source of Knowledge. Brazil and the EU – industrialized state actors – struggled against Indian and Pacific coastal states, as well as the G77 + China for keeping science as a primary source of knowledge in marine spatial closures.

After mentioning the Areas of Particular Environmental Interest (APEIs) as a main example of marine spatial closure, Brazil mentioned the CBD and International Maritime Organization (IMO) as secondary options (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). The APEIs and the marine spatial closures of the IMO – Particularly Sensitive Sea Areas (PSSAs) and Special Areas (SAs) – only rely on science, while the CBD – Protected Areas, EBSAs and OECMs – uses both science and TK. Due to the voice tone of the Brazilian delegate, I perceived that Brazil preferred the APEIs model over any other and would accept drawing upon the marine spatial closures of the CBD and IMO just to reach an acceptable outcome for all Parties. In other words, TK plays a secondary role in the statement of Brazil.

The EU mentioned that the future treaty would help reach the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets (Aichi Targets), which use both science and TK (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). By mentioning these targets, the EU pursued to create a general understanding of the future treaty as an instrument that would use both science and TK. However, it struggled to exclude the use of TK in MPAs, signaling that different knowledge systems would play different roles.

The EU suggested to define MPAs on the basis of the CBD Protected Areas, emphasizing that science should inform all stages of the MPA process (Informal Working Group on ABMTs, including MPAs, Sept. 7 and 13, 2018). This implied that only science could be used to establish restrictive marine spatial closures that would make ocean exploitation revenues decrease. Therefore, the EU pursued to preserve science as a primary source of knowledge in MPAs.

Moreover, the EU mentioned that the future treaty would create a global network of both MPAs and OECMs (Informal Working Group on ABMTs, including MPAs, Sept. 7,

2018). By not commenting on the knowledge system that would inform the stages of the OECM process, the EU did not exclude the use of TK in these marine spatial closures, which are more flexible than MPAs and build upon both science and TK. In other words, the EU mentioned OECMs to 1) emphasize that only science could limit the economic activities of states and 2) preserve this knowledge system as a primary source in marine spatial closures.

Symbolic Capital

Compared to science, TK received less recognition (or had less symbolic capital) from state actors, who avoided explicitly mentioning TK. Instead, state actors referred to relevant frameworks and marine spatial closures that use TK, provided scientific arguments that recognize the value of TK and statements that seem to only promote science. They also created alliances and verbalized instances of agreement for this purpose.

Reference to Relevant Instruments and Marine Spatial Closures. Indian and Pacific coastal states and the G77 + China drew on the recognition of international instruments, targets and marine spatial closures that use TK to promote this type of knowledge without explicitly challenging science and industrialized states. Table 3 indicates what international instruments states mentioned.

Table 3

Mentioned international instruments, targets and marine spatial closures that use TK in the discussions about the definitions of ABMTs and MPAs in the IGC1

State actor	Aichi Targets	CBD	EBSAs	IUCN	IUCN MPAs	IUCN Protected Areas (Categories I and II)
G77 + China*		X				
Mauritius*	X	X	X	X		
Philippines**		X				
Seychelles*			X		X	
Tonga*						X

*Statement delivered on September 7, 2018

**Statement delivered on September 13, 2018

Scientific Arguments in Favor of TK. Seychelles and Mauritius provided scientific arguments to support the use of TK. Seychelles, for instance, argued for TK on a purely scientific basis. It mentioned the science that underlies the EBSAs and referred to the technical guidelines for marine spatial planning of the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization (IOC-UNESCO) (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018).[15] By focusing on the scientific knowledge of the EBSAs and mentioning the guidelines of the IOC-UNESCO, which use both science and TK, Seychelles drew on the recognition of the underlying science of these instruments. Seychelles did this to enable the use of TK and persuade industrialized states of following these EBSAs and IOC-UNESCO guidelines as models to draft the chapter of ABMTs and MPAs of the future treaty.

[15] Seychelles referred to the science that underlies both national marine spatial closures and the EBSAs. As the reference to the national marine spatial closures is highly unprecise, I excluded it from my analysis.

Statements that Seem to Promote Science Only. In the following order, Mauritius referred to international instruments that:

- only build upon science
- build upon science and promote the use of TK
- primarily build upon science or both science and TK

Firstly, Mauritius indicated that the future treaty would help reach the SDG14 and referred to the examples of ABMTs that only use science in the World Ocean Assessment, such as PSSAs and SAs (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). Secondly, it referred to the RFMOs' temporally and spatially closed areas, provided an own definition of MPAs that would protect "cultural resources," enabling the use of TK, and claimed it had found in the World Ocean Assessment, which primarily builds upon science and gives TK a secondary role. Finally, Mauritius proposed to make a list of definitions of existing marine spatial closures, in which the definitions of the CBD, EBSAs, IUCN and World Ocean Assessment should be included (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018).

By providing a statement that starts with international instruments that only use science and that finishes with instruments that enable the use of both science and TK, Mauritius aimed to get the attention of industrialized states and persuade them to build upon the instruments it mentioned, including those that use both science and TK. Moreover, it drew on the recognition of the World Ocean Assessment to provide a definition that would enable the use of TK in MPAs.

Alignments and Instances of Explicit Agreement. States formed alliances to promote their proposals in the negotiations. Table 4 shows the alignments of states with state groups.

Table 4

Alignments of states with the statement delivered by state groups in the discussions on the definitions of ABMTs and MPAs in the IGC1

State	G77 + China	Alliance of Small Island States (AOSIS)	Pacific Small Island Developing States (PSIDS)
Brazil*	X		
EU***			
Mauritius*[+]	X		
Philippines**	X		
Seychelles*	X	X	
Tonga*	X	X	X

*Intervened on September 7, 2018

**Intervened on September 13, 2018

*** Intervened on September 7 and 13, 2018

[+]Mauritius did not explicitly align with any state group, but as a member of the G77 + China, its alignment with the statement delivered by this group is implied

Seychelles additionally aligned with the points raised by the EU on the Aichi Targets and SDG14 and Switzerland's view on the essential role of ABMTs in the negotiations (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018). Tonga explicitly agreed with the EU and Caribbean Community (CARICOM) on the implementation of a network of MPAs in ABNJ (Informal Working Group on ABMTs, including MPAs, Sept. 7, 2018).

IGC2

State actors continued to give their views on the definitions of ABMTs and MPAs in the IGC2. Australia, Canada, the EU, New Zealand and Philippines provided statements that gave TK a place in the discussions.[16] I focus on their statements in the following lines.

The Field

Like in the IGC1, actors met in a negotiation room in the UN Headquarters in New York, followed the rules of procedure of the G.A. (G.A. Res. 72/249, para. 18) and the rules for determining the speaking order (Aeschlimann & Regan, 2017, p. 47). Participants included 128 state and 66 non-state actors of which none openly represents IPLCs (Final List of Participants, 2019a).

State actors had different positions in the field that can be classified into selecting and drafting definitions, drafting clear definitions and limiting the number of definitions in the future treaty.

Selecting and Drafting Definitions. Australia, Canada, the EU, New Zealand and Philippines expressed the need to resolve the substantive provisions before deciding what definitions to include in the future treaty (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). This implies that it was too early to fix the meaning of terms and that some terms would not be defined in the final treaty for the sake of consensus.

The EU suggested to subject all definitions to a final review (Informal Working Group on cross-cutting issues, Apr. 4, 2019), which can be interpreted as a way to ensure that definitions are consistent with the substantive provisions and that the future treaty only

[16] State actors that expressed their views on the definitions of ABMTs and MPAs without giving TK a place in the discussions include: China, CARICOM, Core Latin American Countries (CLAM), Japan, Nauru, Norway, Russia, Senegal, Singapore, Switzerland and United States (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019).

defines those terms in which state actors achieved consensus on meaning. In other words, the EU aimed to not defining terms in the treaty text that would jeopardize its interests.

Australia, the EU, New Zealand and Philippines proposed to include definitions consistent with those of related frameworks (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). These states tried to avoid potential conflicts with particular frameworks, ensure that they understood the origin, context and implications of new definitions in the future treaty.

Drafting Clear Definitions. The EU suggested to keep all the definitions of the future treaty in one chapter (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). In other words, the EU tried to avoid that terms have different meanings because of the context in which they appear in the future treaty. Furthermore, the EU tried to ensure that terms that do not appear in the definitions' chapter are not interpreted differently in other parts of the treaty.

The EU and New Zealand proposed to have distinguishable definitions of ABMTs and MPAs (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). This can be interpreted as an attempt to clarify when states have to comply with stricter norms, as it would be in the case of MPAs, or more flexible rules, such as those of ABMTs.

Philippines indicated that states had to clarify terms mentioned in the future treaty (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). Philippines tried to increase transparency in the negotiations and define as many terms as possible in order to avoid potential non-compliance due to unprecise terms. Additionally, Philippines proposed to define terms essential for operationalizing and implementing the future treaty (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). This can be interpreted as an attempt to promote timely ocean protection.

Limiting the Number of Definitions in the Future Treaty. Australia, Canada and the EU gave different reasons to limit the number of defined terms in the future treaty. Australia proposed to "limit definitions to where they have a specific technical meaning and are necessary" (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). In other words, Australia proposed to exclude definitions that are not technical, which is what determines their "necessity," as well as definitions that are commonly used or used without an explicit definition.

Canada proposed to consider "the needs and the value of providing a definition" and cautioned against using "common term," as well as defining terms that could be used differently throughout the future treaty (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). Canada, therefore, indicated that 1) provided definitions might redistribute power in unfavorable ways, 2) "common term" might imply non-legal meanings, making states lose sight of potential scenarios and 3) terms might have different meanings depending on the context. That is, Canada tried to structure the discussion around that it was more beneficial to states to define as less terms as possible to protect their interests.

Finally, the EU proposed not to repeat or redraft UNCLOS' definitions as a principle (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019) in order to avoid different interpretations of the same terms because of the different contexts in which they appear. This is, additionally, an attempt to avoid using new meanings to interpret UNCLOS and create new state obligations.

Symbolic Struggles

Philippines struggled against Australia, Canada, the EU and New Zealand for allowing the use of TK as a secondary source of knowledge in marine spatial closures. In

turn, the abovementioned industrialized state actors struggled for preserving science as a primary source.

TK as a Secondary Source of Knowledge. Philippines struggled against industrialized state actors for enabling the use of TK in marine spatial closures. It emphasized its preference for the CBD's MPA term – like in the IGC1 – and proposed to define terms "such as (…) connectivity" on the basis of "emerging and best available science" (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). "Connectivity" – either cultural, ecological or migratory – is a scientific term that supports the use of TK in ABNJ (Dunn et al., 2017). This means that Philippines promoted to use of TK in ABNJ on the basis of scientific findings, which unavoidably reproduces the superiority of science. In other words, Philippines indirectly promoted to use TK as a secondary source of knowledge by using scientific arguments.

Science as a Primary Source of Knowledge. The EU struggled against Philippines for forbidding the use of TK in MPAs. It did his by proposing to define ABMTs on the basis of OECMs (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). Like in the IGC1, it only enabled the use of TK in ABMTs, implying that only science – the primary source of knowledge – could be used in MPAs.

Other industrialized state actors also struggled against Philippines for avoiding giving TK a clear role in marine spatial closures. New Zealand, for instance, said: "on to the MPA definition, we note that the proposed definition is largely consistent with the IUCN definition, except that it is missing the 'long-term' reference (…) we think that it is important that the definition incorporates the concept of 'achieving long-term biodiversity conservation objectives'" (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). It seemed that

New Zealand referred to the IUCN MPA definition, which gives a primary role to TK, but this definition does not have a "long-term" reference. New Zealand actually referred to the IUCN Protected Areas' overarching definition, which encompasses different categories that assign TK different roles.

Canada and Australia applied a similar strategy. When commenting on the MPA definition, the Canadian delegate 1) said "On 'MPAs,' we would welcome working from the IUCN definition," 2) read the textual definition out loud and 3) added "this is a very valuable definition in our view" (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). It seemed that Canada read the IUCN MPA definition, but it read the IUCN Protected Areas' overarching definition.

Australia also seemed to refer to the IUCN MPA definition when it indicated that the "IUCN definition" drew a distinction between ABMTs and MPAs, where ABMTs manage activities within a specific sector, while MPAs manage multiple sectors and have a "long-term conservation focus" (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). However, the IUCN MPA definition does not use the term *ABMT* and cannot make a distinction between ABMTs and MPAs. While the definition of the IUCN Protected Areas does not use the terms ABMTs and MPAs, it encompasses different categories that provide different levels of protection. It seems, therefore, that Australia also referred to the definition of IUCN Protected Areas.

It is unclear what relevance TK would have when following the suggestions of New Zealand, Canada and Australia to define ABMTs and MPAs. Therefore, TK would be a primary or secondary source of knowledge depending on the circumstances of each marine spatial closure. This devaluates TK and preserves science as a primary source of knowledge.

Symbolic Capital

Once more, state actors avoided explicitly mentioning TK. Instead, they referred to relevant instruments, provided scientific arguments, created alliances and verbalized instances of agreement to support the use of TK in marine spatial closures.

Reference to Relevant Instruments. Philippines referred to the CBD to promote the use of TK in ABMTs and MPAs (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). More specifically, it indicated that states had to adopt the CBD definition pertaining to MPAs so that the future treaty was consistent with existing international frameworks (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019). Philippines drew upon the recognition of the CBD to support the adoption of an MPA definition that would use TK while not challenging science and industrialized states.

Scientific Arguments in Favor of TK. Philippines promoted to include TK in the definitions of ABMTs and MPAs by drawing upon the recognition of science. It proposed to define "connectivity" in the future treaty (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019) – a scientific term that supports the use of TK in ABNJ (Dunn et al., 2017), persuading industrialized states to use TK in marine spatial closures.

Alignments and Instances of Explicit Agreement. In order to increase the relevance of its proposals in the negotiations, Philippines aligned its statement with that delivered by the G77 + China when discussing the terms of ABMTs and MPAs (Informal Working Group on ABMTs, including MPAs, Apr. 4, 2019). Australia, Canada, EU and New Zealand did not align with other states or groups (Informal Working on Cross-cutting Issues, Apr. 4, 2019). Australia, however, expressed agreement with Canada and New Zealand by saying that these

states had already made points Australia wanted to raise, although it did not specify which points (Informal Working Group on Cross-cutting Issues, Apr. 4, 2019).

Even though Australia explicitly agreed with some points made by Canada and New Zealand, not specifying what points those were indicates that Canada and New Zealand's proposals are highly relevant in the negotiations and Australia does not need to repeat these points so that they are considered in the negotiations.

IGC3

State actors discussed the definitions of ABMTs and MPAs in an informal informal that took place in parallel to the Informal Working Groups. As informal informals cannot be observed (Kamau et al., 2018), I analyze the corresponding report given by the Facilitator of the Informal Working Group on ABMTs, including MPAs (Facilitator). Additionally, I analyze the statement given by Mauritius in this Informal Working Group, where it touched upon the draft definition of MPAs.

The Field

Actors met in the negotiation room in the UN Headquarters in New York, followed the rules of procedure of the G.A. (G.A. Res. 72/249, para. 18) and the same rules for determining the speaking order (Aeschlimann & Regan, 2017, p. 47). Participants included 137 state and 58 non-state actors. None of them openly represents IPLCs (Final List of Participants, 2019b).

While state actors had different positions in the field, these positions can be classified into agreement on substantive articles, different understandings of marine spatial closures and reach of the future treaty.

Agreement on Substantive Articles. The Facilitator expressed that state actors understood that the purpose of the informal informal was not agreeing on definitions of ABMTs and MPAs as they still had to work on the substantive articles (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). States, therefore, restated what they had said in the IGC2: It was too early to fix the meaning of terms.

Different Understandings of Marine Spatial Closures. The Facilitator reported that state actors expressed different understandings of what ABMTs and MPAs entail and how they relate to each other (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). State actors comprehended marine spatial closures on ways that protected their diverging interests, bringing different understandings. The Facilitator, therefore, refrained from providing specific meanings for these tools.

Reach of the Future Treaty. Mauritius linked a word choice on article 16 on "identification of areas requiring protection" with the definition of MPAs of the treaty draft.[17] Mauritius highlighted that it preferred "establishment" over "designation" and that it was "important to make the right choice (…) so as not to contradict what's in the use of terms" – the MPA definition of the treaty draft (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). This definition indicates that MPAs are "designated and managed (…) to achieve conservation and sustainable use." This MPA definition and article 16 would be consistent if states chose "establishment," which would enable the future treaty to conduct all stages of the process of ABMTs and MPAs – designate, establish, manage, monitor and

[17] The following is the paragraph of article 16 that was addressed by Mauritius in the IGC3: "Areas requiring protection through the [establishment] [designation] of area-based management tools, including marine protected areas, shall be identified on the basis of the best available science, the precautionary [approach] [principle] and an ecosystem approach and take into account relevant traditional knowledge of indigenous peoples and local communities."

review. Mauritius departs from the point of view that the future treaty should be able to implement its own provisions.

Symbolic Struggles

State actors struggled for using TK as a primary or secondary source of knowledge, defining the level of protection of marine spatial closures, specifying the duration of MPAs, and determining the object to be protected.

TK as a Primary or Secondary Source of Knowledge. Mauritius struggled against the exclusive use of science in marine spatial closures. It showed interest in the choosing the word "establishment" on article 16 because it had sent a proposal to the Secretariat to include "in conformity with international law" in the definition of MPAs of the treaty draft (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). The acceptance of this proposal would be a gain for Mauritius because it would enable sates to establish MPAs by following, for instance, the CBD and using TK. Consequently, choosing the word "establishment" on article 16 and adding "in conformity with international law" in the draft definition of MPAs would enable the use of TK – as a primary or secondary source of knowledge depending on the chosen international framework – in marine spatial closures while promoting timely ocean protection.

Level of Protection of Marine Spatial Closures. The Facilitator reported that state actors supported to delete "affording higher protection than that provided in the surrounding area[s]" from the definition of ABMTs because such protection "was not (…) so relevant in relation to ABMTs" (Informal Working Group on ABMTs, including MPAs, Aug. 21,

2019).[18] State actors made this proposal so that new ABMTs do not have to reach higher standards than surrounding ones. Consequently, state actors struggled for continuing to exploit the oceans as much as possible, preventing increasing marine biodiversity protection and avoiding compliance with the objectives of the future treaty.

The Facilitator also reported that state actors had "more mixed views" with regards to deleting "higher protection than the surrounding areas" from the draft definition of MPAs (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019).[19] Similar to the case of ABMTs, failing to define MPAs as tools that afford higher protection would prevent newly established MPAs from reaching higher standards than previously established surrounding MPAs. However, the "mixed views" on this proposal reflect the struggle between states that want to exploit MPAs as much as possible and those that want to protect the marine environment for their own survival, such as small island states.

Duration of MPAs. The Facilitator reported that state actors provided "pros and cons" of including a reference to the duration of MPAs (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). This was a struggle between different groups of state actors, namely those that 1) want to exploit MPAs after the ecosystems have recovered, 2) want to exploit MPAs after a fixed period, even when ecosystems have not recovered, 3) depend on the health of the oceans for survival and want to protect MPAs indefinitely and 4) want to control the ocean-related practices of IPLCs.

[18] The following is the draft definition of ABMTs discussed in the IGC3: "tool for a geographically defined area, other than a marine protected area, through which one or several sectors or activities are managed with the aim of achieving particular conservation and sustainable use objectives [and affording higher protection than that provided in the surrounding areas]."

[19] The following is the draft definition of MPAs discussed in the IGC3: "geographically defined marine area that is designated and managed to achieve specific [long-term biodiversity] conservation and sustainable use objectives [and that affords higher protection than the surrounding areas]."

Object to be Protected. The Facilitator reported that state actors also provided "pros and cons" of including "biodiversity" in the MPAs' definition (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). This constituted a struggle between 1) states that aimed to continue exploiting the oceans as much as possible and 2) states that aimed to protect marine biodiversity in ABNJ because their survival depends on the oceans' health. Failing to define MPAs as tools that protect biodiversity implies that state actors are not obliged to conserve and sustainably use marine biodiversity. States could, for instance, keep fishing as much as they currently do, even if this jeopardizes the oceans' health.

Symbolic Capital

Unlike in previous IGCs, the Facilitator and Mauritius did not refer to relevant frameworks, provide scientific arguments or mention instances of agreement. Like in previous IGCs, however, Mauritius avoided mentioning TK.

The Facilitator and Mauritius drew recognition from other sources. More specifically, the Facilitator used the recognition she receives from states to deliver her account of the discussion on the definitions of ABMTs and MPAs that took place in the informal informal (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019). Mauritius aligned with the G77 + China and the African Group (Informal Working Group on ABMTs, including MPAs, Aug. 21, 2019).

Cross-IGCs

State actors gave their views on the definitions of ABMTs and MPAs in all IGCs. While not all state actors gave TK a place in the discussions, many state actors addressed its use in marine spatial closures. I focus on the statements of these state actors to visualize the evolution of the object of study across IGCs.

The Field

State actors were interested in shaping the definitions of ABMTs and MPAs throughout all IGCs while indicating that they would decide on final definitions on a later stage. Table 5 shows how it became clearer throughout IGCs that state actors would decide on these definitions on the latest stage of the negotiations.

Table 5

Positions of state actors regarding the definitions of ABMTs and MPAs in the BBNJ Negotiations

IGC1	IGC2	IGC3
Developing working definitions	Drafting distinguishable definitions	Agreeing on substantive articles before deciding on definitions

Symbolic Struggles

Industrialized state actors consistently struggled for preserving science as a primary source of knowledge, simultaneously limiting the use of TK. On the contrary, Indian and Pacific coastal states and the G77 + China struggled for using TK as a primary or secondary source. Table 6 summarizes the relevance of TK in the symbolic struggles of all IGCs.

Table 6

Relevance of TK in the symbolic struggles of state actors to define ABMTs and MPAs in the BBNJ Negotiations

Session	TK as a primary source of knowledge	TK as a secondary source of knowledge
IGC1	Mauritius, Philippines and Seychelles	Brazil, the EU, G77 + China, Mauritius and Tonga
IGC2	Australia, Canada and New Zealand	Australia, Canada, the EU, New Zealand and Philippines
IGC3	Mauritius	Mauritius

Symbolic Capital

The number of international frameworks, targets and marine spatial closures that use TK and were mentioned by Indian and Pacific coastal states, as well as the G77 + China decreased across IGCs. Table 7 summarizes this phenomenon.

Table 7

Mentioned international frameworks, targets and marine spatial closures by Indian and Pacific coastal states and the G77 + China across IGCs

IGC1	IGC2	IGC3
Aichi targets, IUCN, IUCN MPAs, IUCN Protected Areas, CBD, EBSAs, OECMs	CBD	n/a

Discussion

Firstly, I discuss the field, symbolic struggles and symbolic capital throughout Intergovernmental Conferences (IGCs). Secondly, I discuss the combined meaning of these concepts. Thirdly, I use my results to challenge the assumption that the definitions of area-based management tools (ABMTs) and marine protected areas (MPAs) of the negotiations under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Negotiations) are boundary objects. Fourthly, I discuss the implications for Indigenous People and Local Communities (IPLCs) and marine biodiversity. Finally, I address challenges and opportunities of my research.

The Field

The results show that state actors were interested in shaping the definitions of ABMTs and MPAs throughout all IGCs and that they would decide on final definitions at the latest stage. This implies that definitions are the product of negotiations on a legal framework – or the product of power relations in linguistic exchanges (Bourdieu, 1982/1991) – and shape the legal framework as well. Definitions, therefore, can influence the field to the extent that they can preserve or change the distribution of power among state actors. Through the act of naming (Bourdieu, 1982/1991), definitions help state actors establish their own vision of ABMTs and MPAs by structuring other state actors' perceptions of these tools. This in turn shapes interpretations of the legal framework, preserving or changing the current distribution of power. In a nutshell, definitions and their legal framework are interdependent.

The influence of definitions in the field is exemplified by the different understandings of marine spatial closures that state actors had in the IGC3. Following Bourdieu (1982/1991),

state actors still had different positions regarding the definitions of ABMTs and MPAs and still struggled to preserve or change the distribution of power for their benefit.

Symbolic Struggles

Symbolic struggles are agents' endeavors to define ABMTs and MPAs by preserving or changing their existing definitions. In the BBNJ Negotiations, two main symbolic struggles took place for1) determining the relevance of Indigenous, local and traditional knowledge (TK) and 2) limiting the use of TK in marine spatial closures.

Relevance of TK

The results show that just Seychelles promoted TK only as a primary source of knowledge, but its alignment with the Group of 77 and China (G77 + China) implies that it also supported the use of TK as a secondary source. Therefore, Indian and Pacific coastal states consistently promoted to use TK as both a primary and secondary source of knowledge throughout IGCs.

It seems that Indian and Pacific coastal states struggled for changing industrialized states' perception of TK as irrelevant for protecting of the high seas, as well as the understanding of United Nations Convention on the Law of the Sea (UNCLOS) as a treaty that only relies on science. This, however, fails to explain why Indian and Pacific coastal states did not consistently promote TK as a primary source of knowledge nor challenged the relevance of science.

A possible explanation relies on that, like industrialized state actors, Indian and Pacific coastal states believe that science is superior to TK to address environmental issues. This implies that the superiority of science over TK is given in the BBNJ Negotiations, discouraging Indian and Pacific coastal states to consistently refer to TK as equivalent to

science. This constitutes a symbolic domination (Bourdieu 1982/1991) in which Indian and Pacific coastal states submit to the authority they give to science to define marine spatial closures. On the same vein, the proposal of the G77 + China to use TK as a secondary source of knowledge in ABMTs and MPAs constitutes a symbolic domination (Bourdieu, 1982/1991).

In Escobar's words (1998), the G77 + China and Indian and Pacific coastal states failed to understand TK on its own terms and used it to protect their interests. These state actors might struggle to include TK in the discussions on the definitions of ABMTs and MPAs for the potential economic gains they would obtain if the future treaty recognized TK as a relevant source of knowledge. The G77 + China and Indian and Pacific coastal states could rely on TK to 1) comply with the future treaty without incurring in the costs of investing on marine scientific research (training of scientists, equipment, publication costs) and 2) avoid depending on the scientific findings of industrialized states.

The results also show that Brazil and the EU struggled to preserve science as a primary source of knowledge, while giving TK a secondary role. This constitutes a symbolic imposition (Bourdieu, 1982/1991) in which these industrialized state actors took the authority the G77 + China and Indian and Pacific coastal states gave to science and constrained the use of TK in marine spatial closures.

Finally, the results show that Australia, Canada and New Zealand gave TK an unclear role to decrease its relevance and preserve science as a primary source of knowledge. This also constitutes a symbolic imposition (Bourdieu, 1982/1991).

Limiting the Use TK in Marine Spatial Closures

The results show that state actors also struggled for constraining the use of TK in marine spatial closures. Following Escobar (1998), this enables state actors to use TK to protect their

own interests and denies IPLCs the opportunity to pursue the redistribution of power. The discussions about the definitions of ABMTs and MPAs of the IGCs 1, 2 and 3 reflect this phenomenon from different perspectives.

IGC1. Brazil struggled for preserving science as the primary source of knowledge and gave TK a secondary role. This would allow state actors to use primarily science but also TK according to their interests, as highlighted by Escobar (1998).

The EU proposed to only use science as a primary source of knowledge in MPAs and to use both science and TK in OECMs. Due to that MPAs strictly regulate all human activities for the long-term in situ conservation of ecosystems (D. Johnson et al., 2018, p. 112), the EU tried to ensure that states only used knowledge that is believed to be universal (Karvonen & Brand, 2014, p. 217) and neutral (Forsyth, 2014, p. 218) to limit their own economic freedom in MPAs. However, it did not comment on the knowledge system that would inform OECMs, enabling the use of TK in this type of marine spatial closure.

The EU struggled to preserve the superiority of science over TK (Schlosberg & Carruthers, 2010; Suiseeya, 2014) and constrained the use of this knowledge system in marine spatial closures: It limited the use of TK to ABMTs only, allowing states to choose between science and TK according to their interests, in line with Escobar's research (1998).

By enabling IPLCs to be stakeholders and assigning them responsibilities on the management plan, Philippines had a twofold objective: first, that TK was used in marine spatial closures, and second, that the states decided to what extent TK would be used. This scenario would give Philippines the opportunity to use science or TK according to its interests – as highlighted by Escobar (1998) –, regardless of the interests and rights of IPLCs. Moreover, Philippines could preserve IPLCs in an underprivileged position (Suiseeya, 2014).

IGC2. While discussing the definitions of MPAs, Australia, Canada and New Zealand made it challenging to realize that they referred to the IUCN Protected Areas instead of IUCN MPAs. For the relevance of TK in the future treaty, it is essential to understand what IUCN spatial tool states mentioned: the IUCN Protected Areas use TK as a primary and secondary source of knowledge, while IUCN MPAs use it as a primary source.

Therefore, Australia, Canada and New Zealand mentioned the IUCN Protected Areas firstly, to preserve the use of science as a primary source of knowledge and secondly, to be able to use TK as a primary or secondary source depending on states' interests (Escobar, 1998) – to exploit the oceans as much as each knowledge system would allow it.

Moreover, these industrialized states have IPLCs in their territories (Harden-Davies et al., 2020; Mulalap et al., 2020; Nursey-Bray & Jacobson, 2014). Similar to Philippines in the IGC1, Australia, Canada and New Zealand pursued to use TK according to their interests to preserve IPLCs in an underprivileged position in environmental protection (Suiseeya, 2014).

Consistent with the statement it delivered in the IGC1, the EU referred to the OECMs as a model to define ABMTs in the IGC2. This would allow states to use TK in marine spatial closures that do not considerably limit the economic freedom of states, protecting states' interests (Escobar, 1998) and preserving the superiority of science over TK (Schlosberg & Carruthers, 2010; Suiseeya, 2014).

IGC3. While it seemed that Indian and Pacific coastal states were more or less representing the rights of IPLCs in the discussions about the definitions of ABMTs and MPAs in the IGCs 1 and 2, the struggles that took place in the IGC3 demonstrate that only IPLCs could have meaningfully represented their own interests and explained TK on its own terms.

Besides struggling for using TK as both a primary and secondary source of knowledge, state actors struggled for defining the level of protection, duration, and object to be protected in marine spatial closures. This reveals that any state could preserve a power relation over IPLCs in their territories. For instance, not defining ABMTs and MPAs as tools that offer higher protection than their surroundings could develop conflicts between state actors and IPLCs because protect some spaces more than others, for intance, on spiritual grounds (Laffoley et al., 2017, p. 136).

Establishing a duration for MPAs can also create conflicts with IPLCs. State actors might fix the duration of MPAs on the basis of economic gains while IPLCs might firstly, constantly protect marine areas, for instance, on spiritual grounds (Laffoley et al., 2017, p. 135) and secondly, not allow extractive activities in marine areas during non-foreseeable or pre-established periods, i.a., when a traditional leader dies or when they independently identify the need to conserve marine species (Mulalap et al., 2020, p. 5).

State actors also struggled for including or excluding "biodiversity" in the draft definition of MPAs. Deleting this term would also create conflicts with IPLCs, who protect different marine species in ABNJ or "in connection with ABNJ" (Mulalap et al., 2020, p. 7).

In sum, the symbolic struggles in the discussions on the definitions of ABMTs and MPAs in the IGCs 1, 2 and 3 uncover the main role of TK in these discussions: TK protects the interests of state actors by 1) reducing economic costs for the G77 + China and Indian and Pacific coastal states, 2) avoiding the dependence of these state actors on the scientific findings of industrialized states, and 3) helping both industrialized state actors and Indian and Pacific coastal states preserve IPLCs in an underprivileged position regarding environmental protection.

Symbolic Capital

Firstly, I discuss the alignments of state actors throughout IGCs, secondly, the use of scientific arguments in favor of TK and finally, the instruments, targets and marine spatial closures that state actors mentioned.

Alignments

The results show that states from the Global South (Indian and Pacific coastal states, as well as Brazil) do not receive enough recognition from other state actors in the BBNJ Negotiations. They needed to align their statements with those delivered by state groups and rely on agreement instances to influence other state actors' view of TK in marine spatial closures. On the contrary, the results show that Global North states have more recognition – or symbolic capital (Bourdieu, 1982/1991) – and do not need to take part in alliances to increase the relevance of their statements.

Science in Favor of TK. State actors did not give arguments to justify the use of science in ABMTs and MPAs. However, to promote the use of TK in marine spatial closures, Indian and Pacific coastal states and the G77 + China provided scientific arguments or mentioned international instruments that build upon both science and TK. In Bourdieu's words (1982/1991), this confirms that science has more symbolic capital than TK in the BBNJ Negotiations.

Instruments, Targets and Marine Spatial Closures. Across IGCs, Indian and Pacific coastal states, as well as the G77 + China mentioned fewer instruments, targets and marine spatial closures that use TK. A potential explanation lies on that these state actors relied on the recognition – or symbolic capital (Bourdieu, 1982/1991) – of these instruments

to encourage the use of TK in marine spatial closures. This implies that the texts state actors discussed in the IGCs 2 and 3 progressively reflected the TK-related preferences of Indian and Pacific coastal states and the G77 + China in the definitions of ABMTs and MPAs.

Combined Meaning of the Field, Symbolic Struggles and Symbolic Capital

State actors engaged in defining ABMTs and MPAs because of their potential gains in this process. If they managed to distribute the burdens and benefits of marine biodiversity protection unequally, they could continue profiting from the oceans as much as possible while underprivileged states or human groups would only face the costs. State actors could distribute benefits unevenly by firstly, imposing their own vision of marine spatial closures and secondly, determining the circumstances under which different knowledge systems could be used.

While industrialized state actors can afford the costs of marine scientific research, the G77 + China and Indian and Pacific coastal states have limited resources for such a task. Regulating marine spatial closures through science only would 1) give more power to industrialized state actors in the BBNJ Negotiations and 2) constitute a loss for the G77 + China and Indian and Pacific coastal states.

In order to change this distribution of power, the G77 + China and Indian and Pacific coastal states engaged in symbolic struggles that aimed to change industrialized state actors' view of TK as not valuable for ocean protection. However, the G77 + China and Indian and Pacific coastal consider that TK is inferior to science – they are symbolically dominated (Bourdieu, 1982/1991) – and encouraged the use of TK by drawing on the recognition of specific scientific findings and publications, international frameworks, targets, and marine spatial closures. As a result, industrialized state actors became the authorized agents

(Bourdieu, 1982/1991) to define ABMTs and MPAs, and struggled for preserving the superiority of science and for constraining the use of TK.

This confirms that science receives more recognition than TK in the discussions about definitions of marine spatial closures in the BBNJ Negotiations. Moreover, it explains why all state actors did not explicitly refer to TK although they strategically used it.

Finally, state actors seemed to initially represent the interests of IPLCs by promoting the use of TK in marine spatial closures. However, the findings show that states only protect their own interests and do not represent IPLCs in the discussions about definitions of ABMTs and MPAs.Following Bourdieu (1982/1991), this confirms that delegates, who are professional diplomats, have a privileged position to define marine spatial closures and introduce science and TK, while IPLCs are excluded from the BBNJ Negotiations.

However, why would state actors mention TK in the future treaty if IPLCs are excluded from the negotiations? A possible explanation lies on the given superiority of science in the field. Science recognizes the value of TK in the conservation and sustainable use of marine biodiversity (D. E. Johnson et al., 2018; Dunn et al., 2017; Ferrari et al., 2015; Harden-Davies et al., 2020; Huntington, 2000; Laffoley et al., 2017; McElwee et al., 2020; Mulalap et al., 2020; Nursey-Bray & Jacobson, 2014; Vierros et al., 2020). Thus, state actors cannot easily ignore TK and must limit its use in marine biodiversity protection in order to protect their interests.

Another potential explanation lies on that not mentioning TK in the treaty would enable its unlimited or unregulated use, implying that IPLCs could independently establish marine spatial closures. In other words, IPLCs would have as much power as state actors in ABNJ. This would particularly affect the economic interests of states with IPLCs that traditionally navigate across national and international waters, such as Pacific coastal states (Mulalap et al., 2020). More specifically, this explains why Philippines struggled for limiting

the use of TK in the IGC1. Therefore, mentioning TK in the future treaty helps states control IPLCs in their territories and in ABNJ.

Finally, including TK in the future treaty would allow state actors to choose between different knowledge systems according to their interests. This would jeopardize the conservation and sustainable use of marine biodiversity in ABNJ. For instance, states could continue industrial fishing activities in areas that need protection because IPLCs traditionally fish in these spaces. However, an appropriate solution would be to restrict industrial fishing while allowing traditional fishing by IPLCs. Therefore, mentioning TK in the future treaty is not enough to integrate different ocean-related practices.

Beyond Boundary Objects

Boundary objects integrate different groups (Lidskog & Sundqvist, 2002) and accommodate different interests (Gray et al., 2014). While the MPA concept achieved these goals in the CBD COP10 (Gray et al., 2014), the same cannot be said about the definitions of ABMTs and MPAs of the BBNJ Negotiations.

The exclusion of IPLCs from the negotiations, the strategic use of TK by state actors and the superiority of science in the field indicate that the discussed definitions only protect the interests of states and pursue to preserve IPLCs in an underprivileged position. In sum, these definitions fail to 1) integrate state actors and IPLCs around the goal of marine biodiversity protection and 2) accommodate different interests, such as equitable distribution of burdens and benefits, as well as diverse ways of knowing and relating to the oceans.

Implications for IPLCs and Marine Biodiversity

IPLCs do not achieve any of the dimensions of environmental justice in the BBNJ Negotiations. Firstly, IPLCs do not achieve procedural justice – the meaningful involvement

in decision-making processes (Suiseeya, 2014) – because they cannot participate themselves in the negotiations, nor are truly represented by state actors. Unlike in the CBD and UNFCCC, IPLCs are not able to introduce different ideas in environmental negotiations that would eventually change international policies (Belfer et al., 2019; Suiseeya, 2014).

Secondly, the definitions of ABMTs and MPAs of the future treaty fail to guarantee IPLCs a fair distribution of the benefits and burdens of marine biodiversity protection – or distributional justice (Suiseeya, 2014). This is due to 1) the superiority of science in the negotiations, 2) the possibility of state actors to choose between science or TK for their own benefit and 3) the potential conflicts between states and IPLCs over the level of protection, duration, and object to be protected in marine spatial closures.

The impossibility of IPLCs to obtain procedural and distributional justice indicates that they do not achieve recognitional justice – acknowledgement of their ways of knowing and relating to the oceans (Suiseeya, 2014). As a result, IPLCs do not achieve environmental justice. This hinders their ability to continue performing their ocean-related traditions and transfer TK to future generations.

Challenges and Opportunities

Collaborative Event Ethnography (CEE) represents a valuable opportunity to join efforts in studying international environmental negotiations. CEE allows teams of researchers to collect high-quality data of these meetings, but many researchers lack the economic means or the opportunity to work in a project like MARIPOLDATA. However, the COVID-19 pandemic represents an obstacle to conduct CEE as the G.A. had to indefinitely postpone the fourth and final IGC (G.A. Dec. 74/543).

To keep the momentum and exchange among delegates, the governments of Belgium, Costa Rica, and Monaco, together with the High Seas Alliance launched the *Informal*

Intersessional High Seas Treaty Dialogue, where actors communicate via videoconference. On a similar vein, the President of the BBNJ Negotiations launched the *Virtual Intersessional Work of the Intergovernmental Conference*, where actors share their perspectives via written chat (Letter from the President of the BBNJ Intergovernmental Conference, 2020). Future studies could focus on the role of these platforms on the new treaty.

Once the pandemic has passed, ethnographic research of the IGC4 will contribute to confirm and further determine states' interests behind the inclusion of TK in the definitions of marine spatial closures of the BBNJ treaty. Moreover, Future research could also examine the role of TK in the discussions about the substantive articles of ABMTs and MPAs.

Conclusion

Science receives more recognition from state actors in the BBNJ Negotiations. These actors, therefore, fail to explicitly refer to TK in the discussions about definitions of ABMTs and MPAs. Instead, they make claims to this knowledge system by mentioning scientific findings, publications, international frameworks, targets, and marine spatial closures that encourage its use.

TK protects the interests of state actors by 1) reducing economic costs for Indian and Pacific coastal states, 2) limiting the dependence of these states on the scientific findings of industrialized states and 3) helping both industrialized state actors and Indian and Pacific coastal states preserve IPLCs in an underprivileged position. Moreover, state actors aim at mentioning TK in the future treaty to prevent its free use by IPLCs and to be able to choose between knowledge systems according to their interests.

Such an instrumentalization of TK is possible because IPLCs are excluded from the BBNJ negotiations. As a result, IPLCs do not achieve environmental justice. This compromises the transfer of TK to future generations, the respectful use of this knowledge system and the conservation and sustainable use of marine biodiversity.

While IPLCs cannot participate in the IGC4, the marine environment would benefit from the involvement of IPLCs in the Conference of the Parties of the BBNJ treaty. Moreover, the participation of IPLCs in future IGCs for drafting new environmental treaties would help create a fairer world and achieve more effective environmental protection.

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Appendix A. Categories and Codes

I present the reports of the program Atlas.ti on the categories and codes I created to analyze the statements provided by state actors in the discussions about the definitions of ABMTs and MPAs during each Intergovernmental Conference (IGC). I created these reports on November 8, 2020.

IGC1

Defining ABMTs-MPAs

24 Codes: ABMTs and MPAs are good candidates, ABMTs are essential and critical, aesthetic or natural or cultural values, an area-based management tool can be, Chapter of ABMTs, degree of protection, essential tools to implement relevant obligations, full range of protection levels, higher level of protection, higher level of protection than surrounding areas, level of protection, marine protected area as, MPAs as "restricting human activity," multipurpose MPAs, no official definition of ABMTs, Possible definition of MPAs, Possible definitions of ABMTs, range of ABMTs and MPAs, sectoral ABMTs and Cross-sectoral ABMTs, sort of protection, specific biological resources, suite of ABMTs, systems of protected areas, whole range of potential tools.

Objectives, principles, approaches

34 Codes: common heritage of mankind, conservation and management, conservation and sustainable use, conservation objectives, differentiated protection, ecosystem approach, equal importance to conservation and sustainable use, food security, general principles and approaches, global network of MPAs, greater coordination, identify specific measures, integrated management, integrated management approach, international cooperation, international cooperation and coordination, long-term conservation and sustainable use,

necessity and proportionality, network of MPAs, new to consideration, not undermining, not-undermining, objective of conservation and sustainable use, objective of the conservation and sustainable use, objectives of promotion of cooperation, particular conservation objectives, precautionary approach, precautionary principle, preservation and protection, protection and preservation, science-based approach, specific objectives, sustainable and equitable use, sustainable use and conservation.

Role of states and non-state actors

56 Codes: activities under their jurisdiction and control; adaptation; additional and/or stricter measures; adjacent coastal states; agreeing with the intervention made by Norway; amendment; assessments; beyond just treaties and international organizations; collaboration between competent organisations; compliance committee; conservation side; Convention; COP; cross-sectoral coordination and cooperation; duties of States; effectivenes of MPAs; effectiveness; encourage cooperation; enforcement mechanisms; existing mandates roles and responsibilities; final text; G77 + China; G77 + China, AOSIS and certain points by the EU; hybrid model; I align my intervention wiht the G77 + China, AOSIS and PSIDS; identification and agreement; implement the management plan; implementation by states; implementation may be through relevant organization; implementation of existing obligations; implementation would be by state parties; in favor of the statement delivered by Egypt obo the G77 + China; inclusive consultation process; institutional arrangements; instruments, frameworks and bodies; language; level of an ABMT; level of the whole system; long commitment; management plan; monitoring and review; overall interest of coastal states; policy and decision-making process; procedure of recognition; process of recognition; regional level; regular and periodic reporting; regularly review; relevant competent

organisation; report regularly; responsibilities; responsibility of States Parties; review process; sectoral side; Switzerland; We aling with the G77 + China.

Science

22 Codes: APEI, regional environmental managements plans; backed by strong science; best availabe scientific evidence; best available science; climate change; IMO; IMOs PSSAs; IOC-UNESCO; MARPOLs Special Areas; PSSAs; RFMOs; scientific and technical committee; scientific assessment and advice; scientific data and information; scientific reference areas; SDG 14; streamline non-paper; strong backing from science and by science; Sustainable Development Goals, particularly Goal 14; UN Environment; valid document!; World Ocean Assessment.

Traditional Knowledge

14 Codes: Aichi, Aichi target 11, CBD, clearing-house mechanism, EBSA process, EBSAs, existing and already adopted definitions, existing knowledge, IUCN, IUCN Categories I and II, open plattform for information sharing, socio-ecological concerns, socio-economic and ecological impacts, [I]UCN's definition of MPAs.

Uncertainty and ambiguousness

14 Codes: a lot of experiences; bringing together all these definitions and objectives; carefully consider the definition of concepts of ABMTs and MPAs; clear definition; common working definition; different guidelines and tools; different objectives and needs; discussing working definition; inclusion, in the definition and the scope, of two terms, namely ABMT and MPA; later; later stage; sometimes we won't know; too many different acronyms; working definitions.

IGC2

Aid to negotiations

108 Codes: “access”; “Use of terms”; aid to negotiations; another section; certain terms; comprehensive definition; continued evolution; definition; definition in SEAs; definition stricken; definitions; different clusters; discussed after; each term; environmental aspects; expressions; few comments; Full stop; further developments; geographic scope; geographical application; geographical scope; guidance; hard exercise; high seas and the Area; highlight; introductory part; IPRs; items 23 and 24; key definitions; lists of terms; logic; material scope; matter of process; MGR section; not an option; not comment; not interchangeable; number of terms; opinions; option 1; option 1 of item 15; option 1; option 2; original source, other definitions; other instruments; out of context; practical issue; provisions on scope; questions of scope; reduction; redundant; regulating access; repetition; same definitions; scope; scope of MGRs; scope of the instrument; scope of this instrument; SEIAs; separate terms; Separately defined; several terms; shrink the definitions; simple definition; simplify that definition; single chapter; SPAW Convention; SPAW convention definition; specific aspects; specific definitions; specific parts of the agreement; substantive provisions; substantive section; substantive sections; sufficiently distinct; technical legal definitions; technical meaning; terms; text proposal; UNCLOS; understanding of SEAs; uniform recognition; use of terms; use of terms’ section; utilization and MGRs; valuable definition; value; Vienna Convention on the Law of Treaties; view of these terms; without definition; working definitions; “access”; “area”; “as well as”; “cumulative impacts”; “derivatives”; “EIAs”; “EIA”; “exploitation”; “in situ”, “ex situ” and “in silico”; “includes”; “marine environment”; “marine genetic material”; “MGRs”; “SEIAs”; “strategic environment assessment”.

Defining ABMTs-MPAs

32 Codes: ABMT section, ABMTs and MPAs, broader in scope, connected to MPAs, definition for ABMT, definition for MPAs, difference, different activities, different protection levels, distinction, essential tools, higher protection, long-term, long-term conservation, main distinction, management, multiple sectors, narrower in focus, no activity, paper parks, protecting these areas, series of ABMTs, single sectorial tools, the Area, well-determined zone, wider concept, working definition for ABMTs, “ABMTs”, “ABMTs” and “MPAs”, “affording lasting protection”, “MPAs”, “sustainable use”.

Flexibility

15 Codes: adaptable, both options, commonly used, different ways, no definition, no definition is needed, no definition, no definitions, no need for defining, no need to define, no text, no text option, obvious terms, ordinary meaning, various ways.

Objectives, principles, goals

12 Codes: biodiversity conservation objectives, coherence, conservation goal, consistency, consistent and coherent, coordination across sectors, defined objectives, drafting reasons, observations, principles, specific conservation goals, very beneficial.

Role of state and non-state actors

35 Codes: accept option 1, African Group, agreed language, CARICOM, delete language, deletion, discussions in the MGRs, exploitation, final review, further elaboration, G77, G77 + China, international instruments, internationally recognized definitions, longer intervention, mandatory fashion, more discussion, no consensus, operationalization, preliminary comments, preliminary position, PrepComs, President to Facilitator, PSIDS,

regional or sectoral organizations, shared understanding, substance of the agreement, substance of the instrument, substantive discussion, support options A, B, Support paragraph 16, support the first part, very important, watch my language, “through competent authorities”.

Science

10 Codes: best available science, climate change, cumulative impacts, global processes, IOC, IOC criteria and guidelines, resilience of ecosystems, scientific basis, set of impacts, “TMT”.

Traditional Knowledge

8 Codes: CBD, CBD definition, CBD definitions, human or economic activities, IUCN definition, Nagoya Protocol, Other Effective Conservation Measures” (OECM), social and economic impacts.

Uncertainty, ambiguousness

30 Codes: at this stage, become clear, clarification on terms, define terms, different understanding, doubtful, for the benefit of time, future formulation, future impacts, hard to define, hard to understand, importance to distinguish, in the future, later stage, latest stage, less defined, necessity to define, need of certain definitions, need to clarify, need to consider, need to define, not necessarily convinced, other elements, potential effect, require definition, requires definition, too early to decide, too many definitions, too similar, very different ways.

IGC3

Defining ABMTs-MPAs

7 Codes: article 1, paragraph 10; broader concept; closely linked; definition of MPAs; duration of MPAs; higher protection; process of identification.

Drafting process

13 Codes: article 16, articles, different scenarios, draft definitions, final sentence, future agreement, relationship, substantive articles, terminology, use of terms, “designating”, “establishment”, “existing”.

Negotiations

11 Codes: floor, full process, informal-informals, informal informal, open the floor, proposal, proposals, summary, today, tomorrow, useful discussion.

Role of state and non-state actors

14 Codes: competent bodies, cooperate and coordinate, coordination, COP, decision making, G77 + China, G77 and the African Group, identification, international cooperation, interventions, monitoring and review, Secretariat, work through, “in conformity with the rules of international law”.

Uncertainty, ambiguousness

4 Codes: clarification, different views, no relevant such bodies, question.

Abstract

Area-based management tools (ABMTs), including marine protected areas (MPAs), are central protection tools in the negotiations under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ Negotiations).

Researchers have conceptualized MPAs as boundary objects that allow several actors to accommodate their diverse interests, including the type of knowledge that should underlie such tools. Indigenous People and Local Communities (IPLCs) have struggled to include Indigenous, local and traditional knowledge (TK) in international laws to achieve environmental justice, but states portray TK as inferior to science.

IPLCs are underrepresented in the BBNJ Negotiations, where state actors make claims to science and TK while discussing definitions of ABMTs and MPAs. I focus on the use of TK in these discussions and answer the question: How and why do state actors use TK for defining ABMTs and MPAs in the BBNJ Negotiations?

I applied Bourdieu's concepts of field, symbolic struggles, act of naming and symbolic capital to elucidate state actors' struggles to impose a certain vision of ABMTs and MPAs. Digital ethnography enables the study of international negotiations after they took place, while Collaborative Event Ethnography (CEE) allows teams of researchers to study negotiations on site. I used data of the first Intergovernmental Conference (IGC) collected through digital ethnography and data collected by the European Research Council Project MARIPOLDATA through CEE at the IGCs 2 and 3.

The results show that state actors promote TK in the discussions about definitions of ABMTs and MPAs to protect their own interests, preventing IPLCs from achieving environmental justice and jeopardizing the conservation and sustainable use of marine biodiversity.

Zusammenfassung

Flächenbasiertes Management (ABMTs), einschließlich geschützte Meeresgebieten (MPAs) sind zentrale Instrumente für den Schutz der Meere im Zuge der Verhandlungen zur Erhaltung und nachhaltigen Nutzung der biologischen Vielfalt in Meeresgebieten außerhalb der nationalen Gerichtsbarkeit (BBNJ Verhandlungen).

MPAs wurden in der Wissenschaft als Grenzobjekte aufgefasst, die den Akteuren dabei halfen ihre unterschiedlichen Interessen einander anzupassen, beispielsweise die Wissensformen, die solchen Instrumenten zugrunde liegen sollten. Indigene Völker und lokale Gemeinschaften (IPLCs) haben sich bemüht, indigenes, lokales und traditionelles Wissen (TK) in die internationalen Gesetze aufzunehmen, um den Umweltschutz gerecht zu gestalten, aber Staaten stellen TK als der Wissenschaft unterlegen dar.

IPLCs sind in den BBNJ Verhandlungen unterrepräsentiert. Trotzdem beziehen sich staatliche Akteure auf Argumente aus der Wissenschaft und TK in Diskussionen über die Definitionen der ABMTs und der MPAs. Ich behandele die folgende Forschungsfrage: Wie und warum beziehen sich staatliche Akteure auf TK, um ABMTs und MPAs in den BBNJ Verhandlungen zu definieren?

Ich wandte die von Bourdieu entwickelten Konzepte des symbolischen Kämpfe und des symbolischen Kapitales an, um den Kampf staatlicher Akteure über die Bedeutung von ABMTs und der MPAs zu erläutern. Durch die Verwendung von digitaler Ethnographie erhob ich die Daten der ersten Regierungskonferenz. Zusätzlich dazu konnte ich auf die Daten meiner KollegInnen von MARIPOLDATA, einem Projekt des Europäischen Forschungsrates, zugreifen, die sie während der zweiten und dritten Regierungskonferenzen durch CEE gesammelt hatten. Die Ergebnisse zeigen, dass staatliche Akteure TK in den Diskussionen über die Definitionen der ABMTs und MPAs nur dann fördern, wenn es ihre eigenen Interessen unterstützt. Dies verhindert, dass IPLCs Umweltgerechtigkeit erreichen.