Navigating Participation in Contested Seas

Stakeholder Perceptions of Participatory Governance in Germany's North Sea Marine Protected Areas

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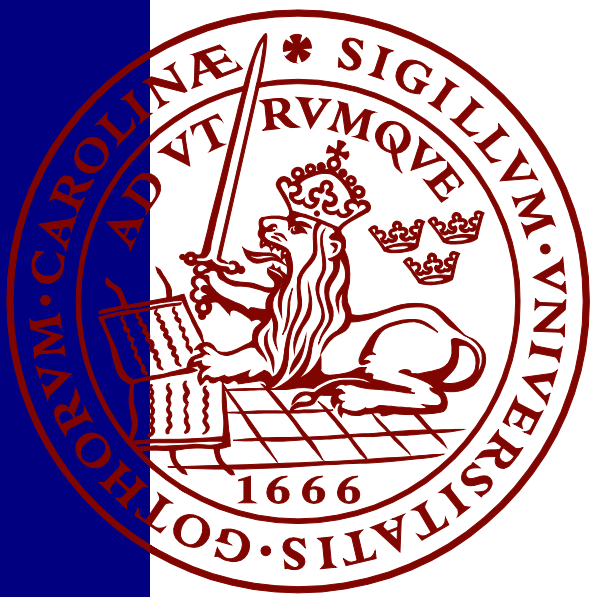

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Submitted May 12, 2026

Supervisor: Kimberly Nicholas, LUCSUS, Lund University

Abstract

Marine protected areas (MPAs) are promising tools to protect and restore marine ecosystems among a global biodiversity loss crisis, yet their socio-ecological effectiveness can be limited by a lack of stakeholder participation in their governance. This thesis examines the case of participatory governance in Germany's three exclusive economic zone (EEZ) MPAs in the North Sea. Drawing on participatory governance theory and related concepts, it analyses stakeholder perceptions of governance, their participation in decision-making processes, and barriers and pathways to more meaningful participation. Semi-structured interviews (n=10) with key stakeholder groups were conducted and thematically analysed. Findings highlight predominantly negative perceptions of MPA governance. Participation was perceived as having limited influence across all stakeholder groups, with political will, capacity and resources, and transparency and communication identified as main barriers for meaningful participation. To enable meaningful participation, the study concludes that institutionalized, deliberative participation formats that address inherent power imbalances within MPA governance are key.

Keywords: Participatory governance, marine conservation, marine protected areas, socio-ecological effectiveness, fisheries, perceptions

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1 Introduction

The protection and restoration of marine ecosystems is vital to ensure current and future human wellbeing (Sala et al., 2021). Marine ecosystems play a crucial role in mitigating climate change, as they sequester large amounts of atmospheric carbon dioxide in elements such as seagrass meadows and sediments (Knefelkamp et al., 2022; Sala et al., 2021). Furthermore, coastal and marine biodiversity is key to more than three billion people's livelihoods worldwide (Convention on Biological Diversity, 2018).

Marine protected areas (MPAs), which are "geographically defined zones with explicit conservation objectives" (Fuchs et al., 2026, p. 1) can be an effective instrument to halt and reverse marine biodiversity loss, mitigate climate change, and maintain socio-economic benefits to people (Arneth et al., 2023; Convention on Biological Diversity, 2018; Fuchs et al., 2026; Sala et al., 2021). Industrial fishing is the greatest driver of global marine biodiversity loss (IPBES, 2019), as it drives the overexploitation of fish stocks and reduces biomass, and destroys sea-floor habitats through bottom-trawling (Pike et al., 2024). As a spatial management instrument, MPAs can limit activities such as fishing in their borders and allow for ecosystems and species populations to recover and spill over MPA boundaries into nearby unprotected areas, where they can provide vital socio-economic benefits and continue to secure local livelihoods of fishers (Mast et al., 2025; Sala et al., 2021).

However, while MPA area coverage has increased globally, the socio-ecological effectiveness of many MPAs has been limited (Bennett et al., 2020; Cintio et al., 2023; Jones et al., 2024; Pike et al., 2024). As a global leader in marine conservation, the EU has increased MPA designation under the commitment of to protecting 30% of its seas by 2030, and placing 10% of its seas under strict protection by 2030 (Aminian-Biquet et al., 2024; European Commission, 2020). Yet a lack of sustainability in its seas prevails, as overfishing is still rife and marine biodiversity in decline (European Environment Agency, 2024). In 2024, over 80% of its MPAs regulated human activities so minimally that they were incompatible with conservation objectives (Aminian-Biquet et al., 2024). This focus on quantity over quality, leading to 'paper park' MPAs with technical protection status yet limited biodiversity or social benefits has raised concerns over long-term sustainability and social justice of MPAs (De Santo, 2013; Schleicher et al., 2019). Like terrestrial protected areas, MPAs can lead to the exclusion of resource-dependent communities and negatively impact their well-being (Bennett et al., 2015; Örey et al., 2025).

MPA governance and how it is perceived by stakeholders strongly affects MPAs' overall socio-ecological effectiveness (Bennett et al., 2019; Enthoven, 2025; Jones et al., 2024). Governance in this

context is defined as “the policies, institutions, and processes that shape who makes decision and how decisions are made in conservation planning and management” (Bennett et al., 2019, p. 2). Governance perceptions of stakeholders such as fishery associations and environmental non-governmental organizations (eNGOs), who are “interested, involved, or affected” (Pomeroy & Douvere, 2008, p. 818) by MPA governance influence their amount of support or opposition, which can impact compliance with regulations and potential political opposition through representative organizations, and thus long-term effectiveness of MPAs (Enthoven, 2025; Rodrigues et al., 2024).

Participatory governance has been highlighted as key to improve stakeholders’ governance perceptions and MPAs’ socio-ecological effectiveness (Fuchs et al., 2026). Conflict between stakeholders with socio-economic interests and stakeholders with conservation interests can arise especially in the context of MPAs, where high stakes of fisheries stakeholders collide with ambitious conservation interests by other stakeholders such as political administrators and eNGOs (Guénette & Alder, 2007; Newig et al., 2023; Pita et al., 2020a). Stakeholder participation in MPA decision-making can allow for the integration of diverse local knowledge and differing environmental interests; can decrease conflict and distrust among stakeholders; improve stakeholders’ perceptions of governance and faith in public agencies; instill the sense of ownership over decision-making outcomes, and thus improve acceptance of MPAs (Ban et al., 2017; Bennett et al., 2019; Di Franco et al., 2020; Mast et al., 2025; Newig et al., 2023; Rasheed & Abdulla, 2020).

However, stakeholder participation does not necessarily lead to positive outcomes and should be evaluated critically so as to not be treated as a panacea for improving MPA effectiveness (Newig et al., 2023). Common pitfalls of participatory governance include unequal representation (Neddersen et al., 2025), lacking communication (Rasheed & Abdulla, 2020) and stakeholders’ perceptions of low influence on decision-making outcomes, which can lead to participatory processes being perceived as “talking shops” (Reed, 2008, p. 2420). Exploring stakeholder perceptions along the three dimensions of participation within a participatory governance decision-making process, namely, stakeholder representation, communication, and power delegation to participants as proposed by Newig et al. (2023), allows for an evaluation of participatory governance. Furthermore, Yates (2018) normatively defines meaningful participation in marine governance as involving stakeholders right from the stage of objective-setting, communicating transparently and clearly, and enabling stakeholders’ perceptions of influence over decision-making outcomes.

Evidently, there is need for more critical evaluation of participatory processes within MPA governance through stakeholder perceptions, yet research gaps exist especially in the EU (Enthoven, 2025; Rasheed & Abdulla, 2020). While many studies have explored factors for MPA effectiveness

through quantitative and objective methods, studies on stakeholder perceptions of participation in MPA governance within the EU are much more scarce (Enthoven, 2025). Furthermore, Rodrigues et al. (2024) highlight that studies often have a limited focus on fisheries' stakeholders, and future studies should include a broader variety of stakeholder groups such as eNGOs and recreational fisheries. To close this gap, Germany provides an interesting case of study as it has already surpassed the goal of protecting 30% of its seas; however, 80% of its MPAs, particularly those in its North Sea Exclusive Economic Zone (EEZ), allow destructive activities such as bottom-trawling and are thus 'incompatible' (Grorud-Colvert et al., 2021) with the conservation of nature (Aminian-Biquet et al., 2024). Furthermore, the governance of Germany's EEZ MPAs in the North Sea includes legally mandated public participation and needs to balance conflicting socio-economic and conservation interests of a variety of stakeholders (Neddersen et al., 2025).

1.1 Research aim and questions

As marine biodiversity continues to decline and benefits to people are at risk, increasing socio-ecological effectiveness of MPAs through participatory governance is of vital importance. Therefore, this thesis aims to critically evaluate the case of participatory governance in Germany's EEZ MPAs by examining stakeholder perceptions of governance and participation within governance, with a focus on the intersection of fisheries and nature conservation interests.

This thesis aims to answer the following research questions:

1. How do stakeholders perceive overall governance of MPAs in the German North Sea EEZ based on their socio-economic and conservation interests?
2. How do stakeholders perceive stakeholder representation, communication, and power delegation within decision-making processes of Germany's EEZ MPA governance?
3. How do stakeholders define meaningful participation in Germany's North Sea EEZ MPA governance?
4. What barriers and pathways to meaningful participation in Germany's North Sea EEZ MPA governance do stakeholders identify?

The four research questions are addressed through 10 semi-structured interviews conducted with key stakeholders in the German EEZ MPA governance context.

2 Theory and Framework

This chapter introduces the theory of participatory governance, which underpins this study and provides a frame for the three concepts related to participation used throughout. The three concepts of 1) stakeholder perceptions of governance, 2) three dimensions of participatory governance, and 3) meaningful participation are furthermore illustrated. These concepts guided the study's focus and research question design and provided guiding codes for analysis and further interpretation.

2.1 Participatory governance theory

In the context of the multiple overlapping socio-ecological challenges that characterize the decision-making contexts of MPAs, participatory governance has risen in popularity as a promising approach to improve environmental and social outcomes, as well as equity and democratic procedures of MPA decision-making processes (Fuchs et al., 2026; Mast et al., 2025). In comparison to traditional and hierarchical 'top-down' decision-making by the government, participatory governance opens decision-making processes for actors not usually tasked with decision-making (Chhotray & Stoker, 2009; Newig et al., 2018). It entails decentralized approaches that involve stakeholders at various stages of the decision-making process through dialogue and collaboration (Newig et al., 2023). A general shift towards more inclusive and democratic participation in decision-making processes can be seen in guidance on international agendas such as GBF Target 3, that defines equitable governance of protected areas as the full participation in "establishment, management and governance" (Convention on Biological Diversity, n.d., para. 12), enabling "effective participation in decision-making" (Convention on Biological Diversity, n.d., para. 12). As elaborated in the previous chapter, stakeholder participation can offer multiple benefits; ultimately, participatory governance has the potential to improve democratic legitimacy and socio-environmental quality of the outcomes of decision-making processes (Di Franco et al., 2020; Newig et al., 2023).

2.2 Conceptual framework

The conceptual framework of this study draws on three main concepts and frameworks related to participation in MPA governance: The concept of stakeholder perceptions of governance, the three dimensions of participation within participatory governance by Newig et al.'s (2023), and the concept of 'meaningful participation' in marine governance by Yates (2018).

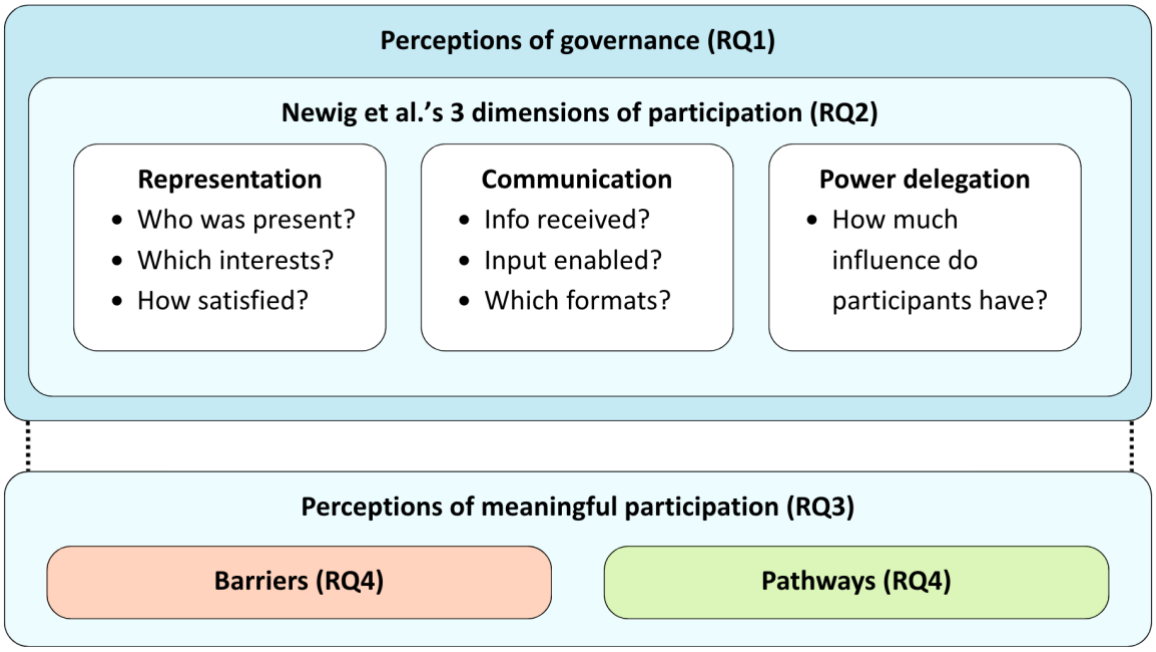

Figure 1. Conceptual basis for research questions (RQs) 1-4. RQ1 draws on general perceptions of governance (Bennett, 2016), while RQ2 draws on three dimensions of participation (stakeholder representation, communication, power delegation) based on Newig et al. (2023) to evaluate participatory governance. RQ 3 & 4 inspired by Yates' (2018) concept of meaningful participation in marine spatial planning decision-making.

2.2.1 Stakeholder perceptions of governance

The concept of stakeholder perceptions of governance was used to inform research question 1 (RQ1), and to situate RQ2 in a broader context during discussion. While the concept of using stakeholder perceptions to assess governance is widely used, this study explicitly uses Bennett's (2016) definition of perceptions as "the way an individual observes, understands, interprets, and evaluates a referent object, action, experience, individual, policy, or outcome" (Bennett, 2016, p. 585). As established in the previous chapter, stakeholders' overall perceptions of governance are vital for socio-ecological effectiveness of MPAs, and can be, among other factors, impacted by perceptions of participation (Bennett et al., 2019; Enthoven, 2025; Muhl et al., 2020) (Figure 1). They provide the backdrop for perceptions of stakeholder representation, communication, and power delegation (RQ2), which allows for connections between the two levels of analysis. Di Franco et al. (2020) highlight the importance of increased stakeholder participation in MPA governance for improving perceptions of governance and thus creating a "virtuous cycle" (Di Franco et al., 2020, p. 10) for MPAs.

2.2.2 Newig et al.'s three dimensions of participatory governance

Newig et al.'s (2023) three dimensions enabled the evaluation of participatory governance and informed RQ2 in structuring how stakeholders perceive participation in governance, as well as the subsequent analysis of interviews through deductive codes.

Evaluating participatory governance decision-making processes, Newig et al. (2023) define three dimensions of participation. In the context of public decision-making processes pertaining to objects of interest such as biodiversity conservation and MPAs, Newig et al. (2018) define participatory governance as "processes and structures of public decision-making that engage actors from the private sector, civil society, and/or the public at large, with varying degrees of communication, collaboration, and delegation of decision power to participants" (Newig et al., 2018, p. 273). Newig et al. (2023) subsequently analyze participatory governance along the three dimensions of stakeholder representation, communication, and power delegation (Figure 1). Based on evaluating participation extent in each dimension, Newig et al. (2023) state that some forms of participatory governance can be more or less participatory. Applying these three dimensions as units of analysis, instead of types of participation formats such as hearings, consultations, etc., allows for a more nuanced evaluation of participation in decision-making processes (Newig et al., 2023).

The dimension of stakeholder representation examines the degree to which different groups of stakeholders participating in decision-making processes, as well as their interests, were represented (Newig et al., 2023). This includes identifying stakeholders' predominant interests, and perceptions of their prevalence at different stages of a decision-making process (Newig et al., 2023). Perceptions of stakeholder representation can also include the degree to which stakeholders are satisfied with the representation of their interests through representatives (Newig et al., 2023) such as ministries, as is the case in Germany's EEZ MPA governance (Neddersen et al., 2025).

The dimension of communication evaluates communication among those participating in participation processes within decision-making processes, and those organizing participation processes (Newig et al., 2023). This includes the provision of information by organizers, whether participants were able to provide the input they deemed important, and the formats through which this communication was enabled (Newig et al., 2023).

The dimension of power delegation examines the degree to which participants in a decision-making process were able to influence decision-making outcomes (Newig et al., 2023).

2.2.3 Meaningful participation

Yates' (2018) concept of meaningful participation inspired the design of RQ3-4. While Yates' definition was not used in operationalizing interview questions or the subsequent analysis in order to avoid skewing stakeholders' individual perceptions of meaningful participation, and barriers and pathways to it, specifically in the German EEZ MPA governance context, it is reintroduced in the discussion for comparison and contextualization (Figure 1).

While multiple studies highlight the importance of meaningful stakeholder participation for MPA governance, Yates' (2018) definition in the context of marine spatial planning is most comprehensive. Yates (2018) defines that for meaningful participation, stakeholders should be included in a decision-making process right from the beginning at the stage of objective-setting and should have and perceive an influence over decision-making outcomes, which requires transparent and clear communication among stakeholders.

3 Methods

3.1 Case description

Germany's three EEZ Natura 2000 MPAs, 'Sylt Outer Reef - Eastern German Bight', 'Borkum Reef Ground', and 'Dogger Bank', cover 28% of Germany's North Sea EEZ and protect a number of valuable ecosystems and species (Flatter, 2022; Krause, Schuchardt, et al., 2022). As depicted in Figure 2, they extend seawards from a baseline starting 12 miles from German shores (Flatter, 2022; Krause, Schuchardt, et al., 2022). While they were reported to the EU as Natura 2000 protected areas in 2007, they were only officially designated as MPAs under German national law in 2017 (Bundesministerium der Justiz, 2017), responding to the objective of protecting valuable species and ecosystems set out in the EU Habitats Directive and the EU Birds Directive (Krause, Schuchardt, et al., 2022). Conservation objectives include ecosystems and species such as sandbanks and reefs, porpoises, and a number of seabirds (Krause, Schuchardt, et al., 2022).

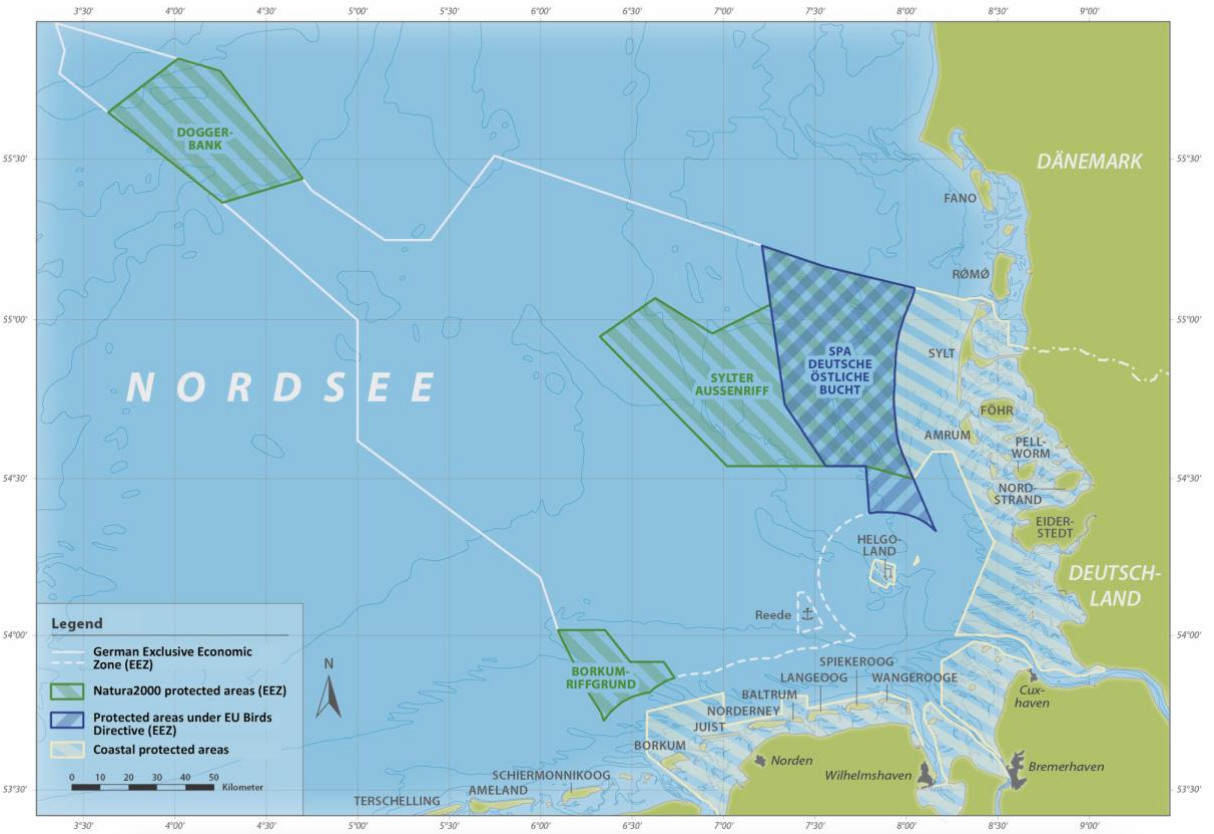

Figure 2. Map depicting the three MPAs 'Sylt Outer Reef - Eastern German Bight', 'Borkum Reef Ground', and 'Dogger Bank' in the German North Sea EEZ. Source: BUND. (n.d.) Die *Meeresschutzgebiete der Nordsee* [Map]. https://www.bund.net/meere/meeresschutz/meeresschutzgebiete/. Legend translated into English by the author.

The North Sea ecosystems are among the most intensely influenced by human pressures in the North East Atlantic, with the extraction of marine species and destruction of seabeds caused by commercial fisheries as one of the greatest threats to its marine biodiversity (Barz et al., 2025; Blöcker et al., 2025; Stelzenmüller, Rehren, et al., 2024). Currently, only 0.2% of Germany's EEZ is covered by no-take zones which exclude all types of fishing (Barz et al., 2025). As of 2024, all of Germany's North Sea EEZ MPAs have protection levels incompatible with conservation of nature due to the prevalence of destructive activities such as bottom-trawling fishing (Aminian-Biquet et al., 2024). Impacting marine biodiversity mainly through "extraction of target species, extraction of non-target species, and through damage to sea floor" (Junge et al., 2022, p. 31), commercial fishing is being carried out in nearly all parts of the three EEZ MPAs, with bottom-trawling allowed in parts of both 'Sylt Outer Reef - Eastern German Bight' and 'Dogger Bank' MPAs (Bundesamt für Naturschutz, 2025; Junge et al., 2022). In this context, Krause et al. (2022) highlight the need for greater spatial and temporal restrictions such as the implementation of no-take zones in order to reach conservation objectives.

Conversely, German fisheries within the EEZ are facing multiple existential crises and spatial pressure exacerbated by MPAs (Stelzenmüller, Letschert, et al., 2024). Concerns over future livelihoods are rife due to changing fuel and market prices, changes in fish stocks caused by climate change, and the increasing spatial pressure by multiple competing interests such as nature conservation, offshore-wind development, military uses, and shipping (Barz et al., 2025; Stelzenmüller, Letschert, et al., 2024).

German EEZ MPA governance pertaining to the intersection of conservation and fisheries is set within a multi-level governance context. Under the EU Habitats and Bird Directives, as well as the Marine Strategy Framework Directive (MSFD), Germany is obligated to take all necessary measures, including within MPAs, to restore the marine environment to a 'good environmental status' (European Commission, n.d.). As an area beyond territorial seas, in contrast to coastal MPAs, governance and management of MPAs in the EEZ falls under national jurisdiction by the Federal Ministry of Environment (BMUKN) and its subordinate Federal Agency for Nature Conservation (BfN) (Flatter, 2022). While the ministry and agency are responsible for the selection, designation, and design of management plans for the MPAs, consensus is needed with respective federal agencies and ministries with use interests in the areas (Flatter, 2022). Furthermore, the EEZ's unique legal framework limits the ministry's and agency's power over regulations of commercial fisheries: Under shared responsibility of the Federal Ministry of Environment and the Federal Ministry of Agriculture (BMLEH), commercial fisheries regulations fall under the EU Common Fisheries Policy (CFP), and need

to be negotiated both between the two national ministries, and between EU member states with a vested interest in fishing within the EEZ MPAs (Flatter, 2022; Krause, Prowe, et al., 2022).

Three recent decision-making processes and related national public participation processes within this multi-level MPA governance were significant for the intersection of conservation and fisheries objectives in German EEZ MPAs (Flatter, 2022) (Table 1). First, the designation of the MPAs under national law in 2017 heavily regulated recreational fishery in the areas (Krause, Prowe, et al., 2022). Second, the subsequent publishing of management plans in 2020 furthermore cemented recreational fishery regulations and conservation objectives laid the foundation for future regulations (Krause, Prowe, et al., 2022). Third, the regulations of commercial fisheries under the EU Common Fisheries Policy (CFP) in 2023 (for 'Sylt Outer Reef - Eastern German Bight' and 'Borkum Reef Ground') and 2025 (for 'Doggerbank') led to the partial exclusion of bottom-trawling and gillnet fishing in the MPAs and the establishment of a small no-take zone within the MPA 'Sylt Outer Reef - Eastern German Bight' (Bundesamt für Naturschutz, 2025). Public participation in the governance of Germany's EEZ MPAs is primarily mandated through §57 BNatSchG (Bundesministerium der Justiz, 2024) and broader EU and international participation requirements such as the SEA Directive and the Aarhus Convention (Umweltbundesamt, 2020), which includes the participation of legally recognized eNGOs and national, as well as regional fishery associations.

Table 1. Overview over decision-making processes relevant for the intersection of nature conservation and fisheries objectives in Germany's North Sea EEZ Mpas. Table created by author based on Krause et al. (2022); Flatter (2022); Bundesministerium für Justiz (2017).

Decision-making process	Entry into force	Objectives	Initiating authorities	Main outcomes
Designation of MPAs under national law	2017	• Creation of legal conservation status to fulfill requirements under EU Habitats & Birds Directives, as well as Marine Strategy Framework Directive (MSFD) • Prohibition of activities that fall under national jurisdication	Ministry of Environment	Seasonal or year-round exclusion of recreational fishing from both 'Sylt Outer Reef – Eastern German Bight' and 'Borkum Reef Ground'
Creation of MPA Management plans	2020	• Identify necessary measures (i.e. protection or restoration measures) to achieve conservation objectives as defined by designation in 2017 • Further prohibition of activities that fall under national jurisdication • Provide strategic and scientific basis for future regulation of actvities such as commercial fishing	Ministry of Environment	Strategic and scientific integration of previous regulations within MPAs
Commercial fisheries regulations under EU Common Fisheries Policy (CFP)	2023/ 2025	• Further implementation of conservation objectives under previously mentioned EU directives	Ministry of Environment & Ministry of Agriculture	Partial exclusion of bottom-trawling and gillnet fishing in MPAs and establishment of small no-take zone

3.2 Research design

This study applies a qualitative approach focusing on the case of participatory governance in Germany's EEZ MPAs, using a theoretical framework with three main, connected components related to participatory governance theory as introduced in the previous chapter. Broad perceptions of governance to situate stakeholders' interests and values are followed with examination of more narrow perceptions of Newig et al.'s (2023) three dimensions of participatory governance in specific decision-making processes. The third concept of meaningful participation in MPA governance is used to examine what stakeholders would like participation to look like, and to identify barriers and future pathways for it.

Using stakeholder perceptions as evidence is a proven method to evaluate MPA governance (Bennett, 2016; Relano et al., 2022; Rodrigues et al., 2024). Perceptions allow for a deeper understanding of reasons for acceptance or rejection of governance and MPAs (Rodrigues et al., 2024), as they can provide a more nuanced perspective on the often complex contexts that characterize MPA governance (Bennett, 2016). Semi-structured interviews are a fitting method to capture perceptions, as their open-ended questions allow for nuanced insights and divergent perspectives (Bennett, 2016).

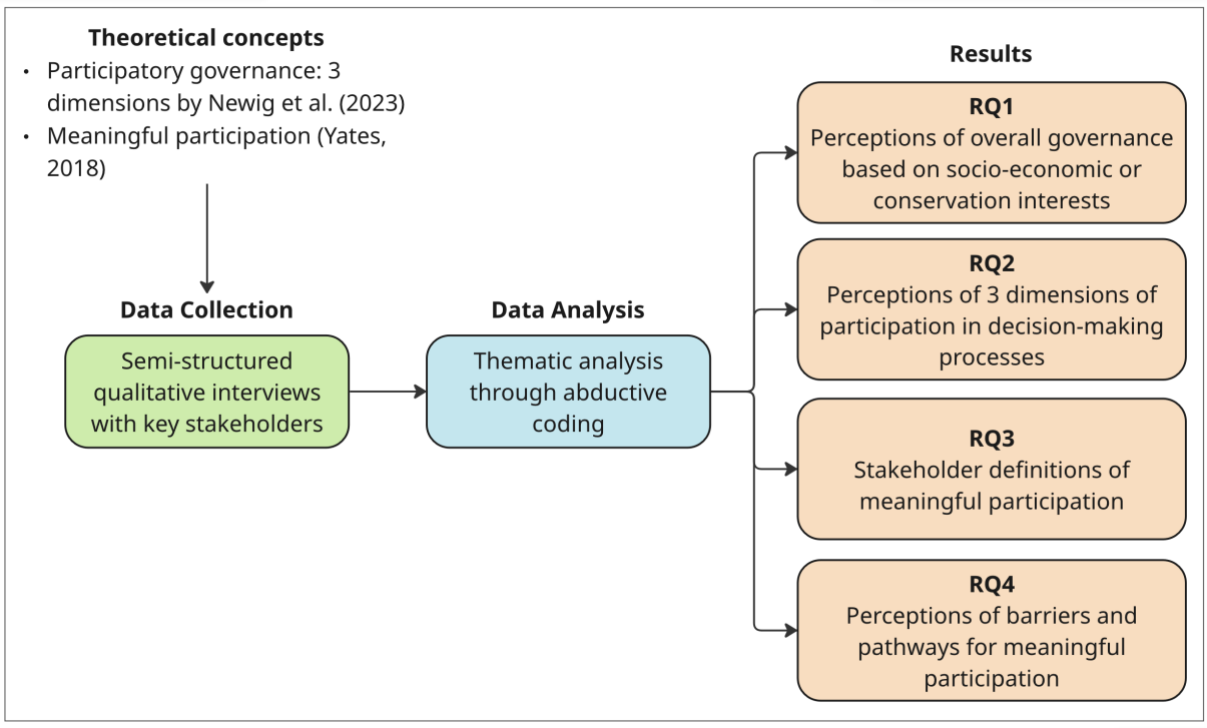

Figure 3. Visualization of the research design to answer RQ1-4. Figure created by author.

3.3 Interview method

Semi-structured individual interviews were conducted with 10 key informants from relevant stakeholder groups in MPA governance (Table 2). MPA management, eNGOs, commercial fisheries, recreational fishery, scientists, and political administration were identified as relevant groups based on previous studies highlighting the importance of their inclusion in MPA governance (Cintio et al., 2023; Guénette & Alder, 2007; Newig et al., 2018; Pomeroy & Douvere, 2008; Sampedro et al., 2017), such as fishery associations representing the primary resource user group affected by MPA regulations (Yates & Schoeman, 2015). Key informants within these stakeholder groups were identified based on publicly available information, background interviews, and snowballing during interviews. The prime criterion for final interviewee selection was participation in, or possession of profound knowledge of, one or more decision-making processes directly relevant to the case of this study as elaborated in the previous section.

Based on Newig et al.'s (2023) differentiation between 'participants' and 'process organizers' of public participation within decision-making processes, stakeholder groups' roles in national public participation processes were categorized based on insights from literature (Flatter, 2022; Krause, Schuchardt, et al., 2022; Neddersen et al., 2025), information on legal participation frameworks (Bundesministerium der Justiz, 2017), and background interviews (Table 2). Interviewees from the group 'Scientists' were a special case, as interviews revealed that neither had officially participated according to Newig et al.'s (2023) definition and both saw themselves in an advisory role (Table 2).

Table 2. Overview of interview respondents (Rs) including stakeholder group, group description, role in national public participation processes (participants or organizers), and number of interview respondents. *Respondents requested and were provided with interview questions beforehand. **The role of scientists is often multifaceted; in this study R7 & R8 defined themselves more as advisors rather than participants. Table created by author.

Stakeholder group	Group description	Participant or process organizer	No. of interview respondents	Referred to as
MPA management	Researcher in government agency responsible for management of MPAs	Organizers	1	R1*
eNGOs	Fisheries & marine governance experts in eNGOs	Participants	2	R2 & R3
Commercial fisheries	National/regional associations representing German commercial fisheries interests	Participants	2	R4 & R5*
Recreational fishery	National association representing recreational fishery interests	Participants	1	R6
Scientists	Researchers from different fields: Ecology, Sociology	Advisors**	2	R7 & R8
Political administration	Officials working in ministries responsible for decision-making	Organizers	2	R 9 & R10*

The semi-structured interview guide (Appendix A) broadly followed the research framework: After small-talk and warm-up questions, the four main sections covered questions relating to (A) interests and values regarding MPAs, (B) perceptions of governance, (C) participation in decision-making processes, and (D) definitions of meaningful participation as well as barriers and pathways to it (Appendix A). The order of questions was subject to change based on how conversation and interviewee answers flowed naturally, and most stakeholders answered all questions in detail. Questions were designed and operationalized based on components of the theoretical framework, as well as information from background interviews and literature that allowed for a pre-identification of relevant decision-making processes.

Interviews were held in German, lasted ~1 hour, and were conducted remotely via Zoom or Teams, as stakeholder locations were spread out across Northern Germany. All interviews were audio-recorded either by phone or using video conferencing software, and participant consent was ensured beforehand. Interview audio recordings were digitally transcribed ad verbatim, using the GDPR-compliant AI transcription software SoundtypeAI (SoundTypeAI, n.d.). Mistakes during this transcription were manually corrected in a second transcription cycle using the audio files.

3.4 Data analysis

Further categorization of interview respondents into either predominantly socio-economic or conservation interests based on Newig et al. (2023) allowed for greater nuance during analysis. Newig et al. (2023) highlight the importance of identifying stakeholder interests for decision-making and participation processes, as they will inevitably impact decision-making outcomes. Inspired by Newig et al. (2023), conservation interests were defined as predominantly aimed at the protection and restoration of marine biodiversity and ecosystems, while socio-economic interests were defined as predominant aims to maintain social wellbeing and livelihoods based on the economic use of resources within MPAs (Newig et al., 2023). Categorization was based on the quantity of respondents' statements related to interests in MPAs during interviews.

Interview transcripts were coded using an abductive approach (Skjott Linneberg & Korsgaard, 2019) to thematic analysis after Braun and Clarke (2006) to identify themes within data. An abductive approach applies a mix of deductive and inductive coding, and ensures the analysis remains grounded within theoretical frameworks yet allows for emerging insights (Skjott Linneberg & Korsgaard, 2019). The few overarching deductive codes were drawn closely from the theoretical frameworks and concepts, while inductive codes emerged during analysis and were refined as coding progressed; an overview of the coding framework can be found in Appendix C. Coding was carried

out with the data analysis software NVivo 15 to allow for high-quality analysis despite the large amount of data (Skjott Linneberg & Korsgaard, 2019).

3.5 Ethical considerations

In the process of conducting this study, I ensured to follow Lund University's guidelines on ethical research principles. I informed interview participants about the study, recording and use of their data, as well as storage and rights to withdraw through obtained written consent (Appendix B). To ensure compliance with GDPR, I stored recordings and transcripts on a local drive, and anonymized personal data before uploading transcripts into NVivo.

4 Findings

4.1 Perceptions of MPA governance based on interests (RQ1)

4.1.1 Grouping of stakeholders into conservation or socio-economic interests

Respondents were broadly grouped into either representing predominantly socio-economic, conservation, or mixed interests, based on statements related to interests and goals regarding MPAs (Figure 4). Respondents with predominantly socio-economic interests were generally more critical of MPAs as effective conservation tools and concerned with proportionality (R9) of fishery regulations. This was linked to their primary interest in the preservation of fishers' livelihoods and "sustainable German fisheries" (R9) and wishing for MPA regulations to be "taken with due consideration" (R9) and "proportionate in terms of impact" (R5) on fishers. Respondents with predominantly conservation interests such as eNGOs, MPA management, political administration R10 and scientist R8 perceived MPAs as "essential" (R2) for preserving, protecting, and restoring marine biodiversity in the context of "extreme use conflicts" (R10) due to spatial pressure in the German EEZ. Moreover, they generally perceived a need for stronger protection regulations such as "no-take zones" (R8) and prohibiting "bottom trawling" (R2) further (R2, R3). The recreational fishery association lies in the middle as they stated strong interest in marine conservation but stressed that their members' motivation for recreational fishing included a variety of socio-environmental factors, such as stress relief from busy daily lives, immersion in nature, interest in species knowledge (R6).

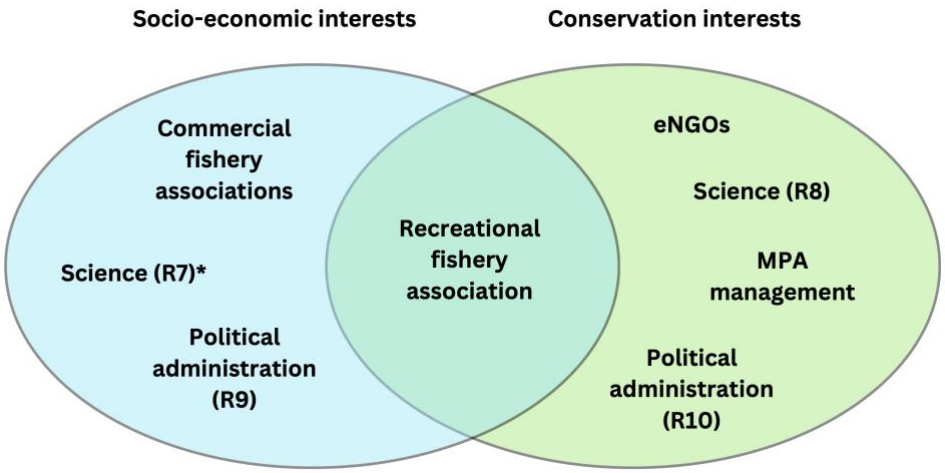

Figure 4. Simplified categorization of respondents' interests regarding MPAs into socio-economic interests (blue oval) and conservation interests (green oval) with overlapping/mixed interests shown in the middle (turquoise). Categorization based on quantity of statements related to interests in MPAs during interviews. *Scientist R7 refrained from stating own interests but represented fishers' interests via insights from research. Figure created by author.

4.1.2 Perceptions of MPA governance

The analysis of respondents' perceptions of governance revealed three main insights: 1) perceptions of governance were mostly negative; 2) stakeholders with predominantly socio-economic interests perceived governance most negatively; 3) perceptions diverged strongly along different interests as stakeholders.

Positive perceptions

Positive themes (n=3) related to MPA governance were produced predominantly by respondents with conservation interests and mentioned by a maximum of four respondents per theme (Figure 5). They encompassed the perceptions that participation processes were legitimate and enabled participation (R1, R2, R5), as well as both eNGO respondents stating that regarding the geographical location and protected goods of MPAs "the choice that was made is a good one" (R2). All respondents with conservation interests furthermore positively perceived existing regulations as an improvement in protecting habitats and species, such as R1 referring to the regulations under the Common Fishery Policy that "regulate bottom fishing in parts of the protected areas, and virtually all studies show that the biggest difference—even for organisms on the seabed—is whether they are disturbed or not" (R1).

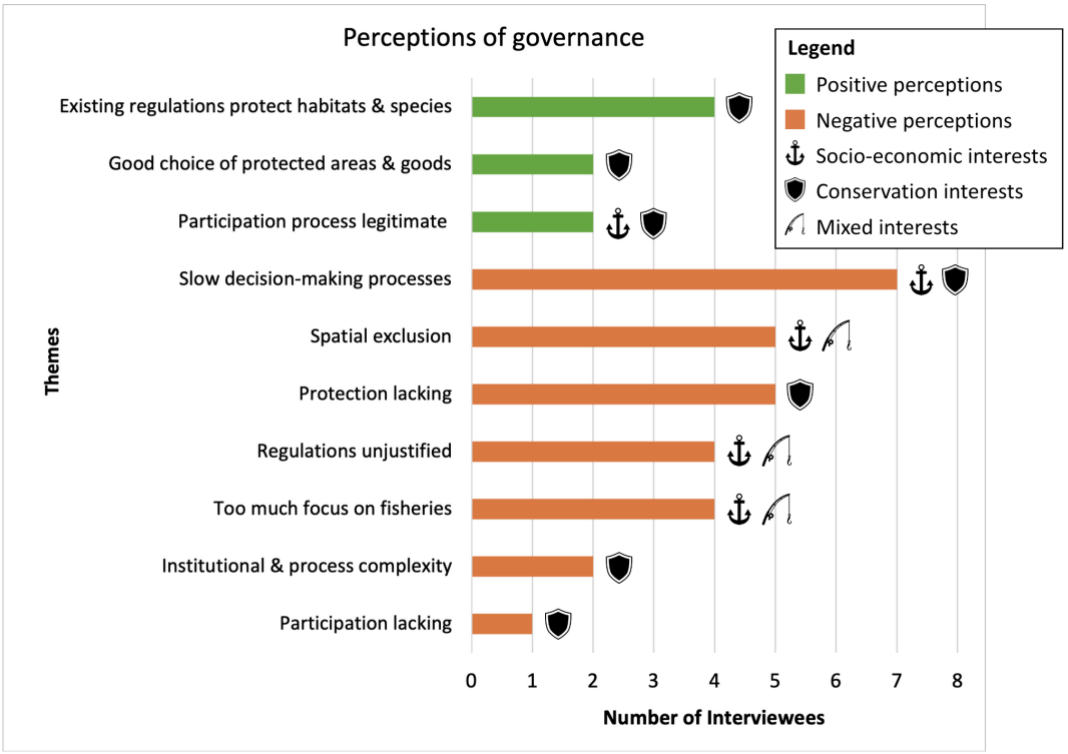

Figure 5. Bar plot depicts number of interviewees that mentioned themes associated with positive perceptions (green) and negative perceptions (orange) of MPA governance. Symbols behind each bar indicate interest affiliation of respondents. Figure created by author.

Negative perceptions

Negative themes (n=7) were produced relatively equally between different interest groups with more respondents per theme than for positive themes, although interest groups notably did not overlap much (Figure 5). Minor negative themes among respondents with conservation interests were a perceived lack of participation and that it was enabled only "very late in the process" (R2) by one eNGO interviewee, as well as institutional and process complexity that was perceived to impede effective MPA governance (R8, R10). The shared major negative theme 'slow decision-making process' was produced on the socio-economic interests side only by scientist R7 and political administration R9, and otherwise connected with all conservation interest respondents' perception that stricter protection regulations for MPAs "had simply taken way too long" (R2). Furthermore, all respondents with conservation interests perceived protection as "not enough" (R3), with R8 perceiving MPAs as thus "not particularly effective" (R8).

In contrast, all respondents with socio-economic interests besides political administration R9 shared negative perceptions and low legitimacy of governance, as they stated that past regulations had been "neither necessary nor sufficiently justified" (R5), with R6 and R5 perceiving a lack of quantified ecological "impact assessments" (R5) both before and after regulation implementation. This perception of unjustified regulations was often connected to the theme of 'too much focus on fisheries', as respondents found that in comparison to other competing use interests regarding MPAs, fisheries were less destructive and did not need to be regulated to the current extent. Furthermore, the theme of forced 'spatial exclusion' connected to 'regulations unjustified', as fishers perceived MPA governance as excluding them from areas they perceived a right of access to. Notably, these themes were not limited to perceptions of MPA governance, but showed an overall dissatisfaction, especially of commercial fisheries, with marine spatial planning in the EEZ that goes beyond spatial exclusion in MPAs, as illustrated by R7:

"And of course, given the overall news landscape, frustration is running high. As I said, it's not just about protected areas. Even if I'm not directly affected by the wind farms—or only indirectly by the power lines, the Navy, and other users—when, year after year, I get the feeling and the message that something of my customary rights is being increasingly curtailed without me receiving anything in return, then I get frustrated." (R7)

4.2 Perceptions of participation in decision-making processes (RQ2)

The analysis of stakeholders' perceptions of participation reveal three main findings: 1) satisfaction with stakeholder representation was mixed due to mutual perceptions of interest imbalances both by stakeholders with conservation and with socio-economic interests; 2) perceptions of communication among participants and process organizers were mixed due to a lack of iteration, transparency within participation processes, and regular top-down communication; 3) perceived influence of participants within participation processes was low among all respondents, with other interests, timing, and legal frameworks as key themes.

4.2.1 Stakeholder representation

Interviews indicate that, while socio-economic and conservation interests of stakeholders were perceived to have been present at most stages of decision-making processes, most stakeholders representing predominantly socio-economic interests perceived an inequity of representation in comparison to conservation interests, and vice versa.

Positive perceptions

Most stakeholders, both with socio-economic and conservation interests, perceived their interests to have been represented at all stages of decision-making processes. The participation of eNGOs and fishery associations and ability to represent their interests in public participation processes of relevant decision-making processes was confirmed by most respondents, with MPA management R1 stating that "everyone was heard" (R1). Both political administration respondents (R9, R10) confirmed their ministries' representation of conservation and socio-economic interests respectively. Recreational fishery association R6 did not provide statements related to representation of their interests through representatives in higher stages of decision-making processes. Commercial fishery association and eNGO respondents expressed satisfaction with their respective ministries as interest representatives in higher stages of decision-making processes (R3, R5) (Figure 6), with R3 expressing pride that the environmental ministry "stayed so persistent" (R3) on negotiating for conservation interests in the Common Fisheries Policy process.

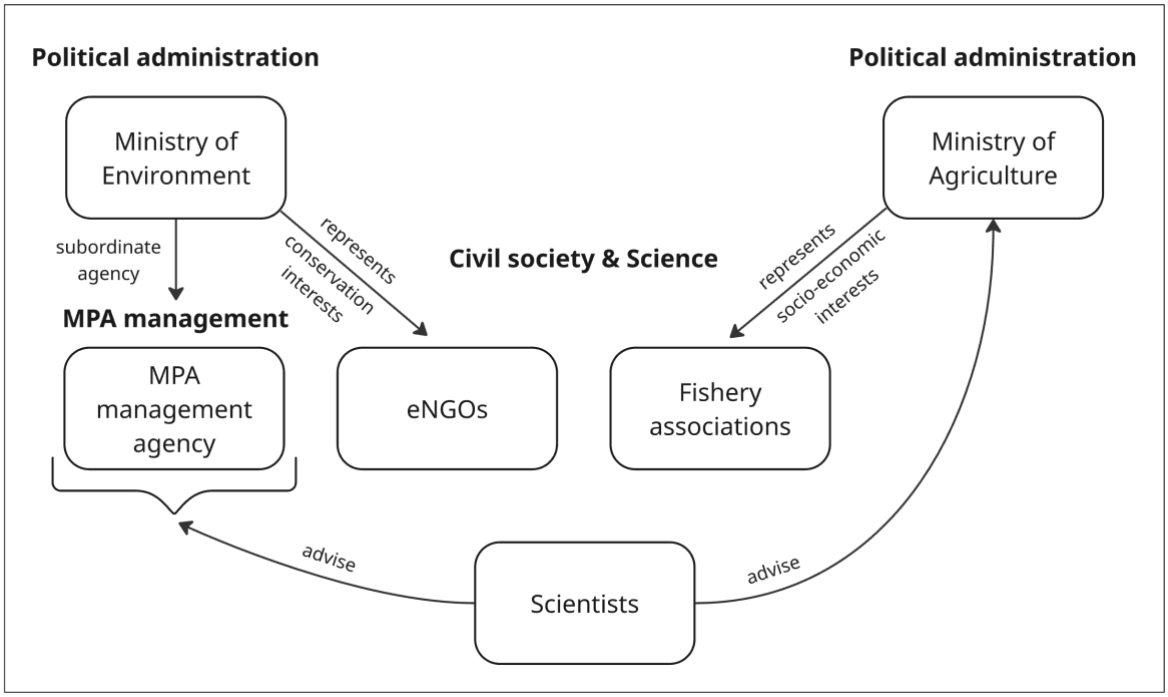

Figure 6. Graph depicts simplified relationships between different stakeholders related to representation of interests in the three decision-making processes, as identified through interviews. Figure created by author.

Negative perceptions

With the exception of political administration respondents, all stakeholder groups perceived representation imbalances between socio-economic and conservation interests; however, both interest groups mostly perceived their own to be underrepresented and the other to be overrepresented. R6 pointed out a general dominance of conservation interests focused on exclusion of use at the time of the MPA designation process. While R7 mentioned a representation imbalance in terms of how many representatives of fishery associations were present in official participation processes in comparison to stakeholders with conservation interests, R5 perceived that their respective ministry had less staff working in the MPA governance context than the ministry representing conservation interests:

"Well, there isn't really, let's say, a level playing field when it comes to the staff involved and the available resources. As I said, there aren't any shortcomings at that level—I can't say that anyone hasn't done their job properly—but you just realize that there is an 'imbalance of weapons', and that makes things a bit more difficult." (R5)

In contrast, both R3 and R1 implied that socio-economic interests were often better represented than conservation interests. R3 stated that in eNGOs, "there aren't that many people left who still work on fisheries in Germany", adding that specifically industrial fisheries' had larger numbers of

representatives than eNGOs and were thus able to better represent their interests in decision-making processes.

4.2.2 Communication

Interviews provided three main findings regarding communication among participants and process organizers: 1) respondents differentiated between communication within participation processes and without; 2) relevant input by participants was enabled through formats during participation processes, but these were lacking extensive communication overall; 3) communication outside participation processes was perceived as relevant by most stakeholders but was lacking in regularity and perceived effects.

Communication inside participation processes

Perceptions of communication within participation processes were mixed, and indicate limited communication extent among participants and process organizers in formal participation formats. All respondents confirmed either neutrally or positively that stakeholders were able to provide their input through participation formats such as public hearings and information sessions, written statements on proposed regulations, and few roundtable dialogues (R6); commercial fishery association R5 praised that formats were always "conducted properly". However, responses indicate that the formats lacked deliberative and iterative dynamics. Both written statements and public hearings were perceived by eNGOs and commercial fishery associations as formats where their input was received, but not satisfyingly considered (R3, R4, R5). MPA management R1 and political administration R10 confirm that written statements were "reviewed" (R10) or "evaluated" (R1), but R1 states that, while clarification in response to these statements was given, there was no negotiation within the public participation process. Communication of information from process organizers to participants was perceived positively by MPA management R1, pointing to "large e-mail lists, press releases, infos on their homepage, etc." (R1) to communicate official proceedings of the process. However, recreational fishery association R6 perceived general communication of justifications for proposed regulations to be lacking and pointed out the need for transparent communication before making a decision. This perception was shared by eNGO R3, who pointed out organizers' "lack of transparency" (R3) regarding the data that proposals for regulations were based on, as they were not publically accessible until drafts of the plans were open to the public.

Communication outside participation processes

All respondents with the role of participants in public participation processes identified communication outside of formal participation formats as key for continued representation of their interests, but interviews indicate a lack of official communication processes, requiring participants to take the initiative. Fishery association, eNGO, and political administration respondents confirmed communication outside of participation formats as a means to communicate information about decision-making process stages, and to provide and receive further input. In the context of the Common Fisheries Policy decision-making process, a political administration respondent stated that, while respective ministries and agencies were sometimes in contact with fishery associations and eNGOs, there was "no official communication process". In the same context, eNGO R2 perceived this contact as critical to understand the current process status, and criticized that information provision by political administrators had been "not really proactive; rather, it actually always require[d] us to take the initiative to ask, ask, and ask again" (R2), adding that information would then usually be provided. A fishery association respondent mirrored the importance of this communication to provide their input, stating that they had "always been able to raise the issue [of justification of regulations] in every possible setting" and "could always get in touch with the relevant departments", but added that they made limited use of it as this communication had little perceived impact.

4.2.3 Power delegation

The analysis revealed overall perceptions of participants' influence to be low, with three main themes: 1) participants' own perceived lack of influence was due to the impression that socio-economic or conservation interests were more influential in decision-making outcomes and, 2) due to the limited duration and wrong timing of participation; 3) all stakeholders clearly differentiated between participation and decision-making.

A central theme among stakeholders with the role of 'participants' in public participation processes was a mixed or low perceived influence in these processes attributed to other interests being more influential. Both eNGO interviewees and all fishery association interviewees perceived their influence in participatory processes to be limited and that their interests were heard, but not integrated. However, they revealed contrasting perceptions as each perceived respectively that fisheries' and economic interests (R2, R3) or conservation interests (R4, R5, R6, R7) had a higher influence on outcomes. Fishery association R5 stated that, while their input had managed to preserve a shrimp fishing area in the "Sylter Außenriff" MPA, "there's not really a big influence on outcomes that can be

found" (R5). This sentiment was further elaborated by R7, who recalled that "fishermen then feel a bit powerless when nature conservation interests choose these areas/regulations" (R7) and perceive that stakeholders with conservation interests "tend to pick on the weakest opponent" (R7). In contrast, eNGO respondents stated that there is "always a greater economic interest" (R3) and criticized a lack of influence in comparison to socio-economic interests. ENGO R2, in the context of the Common Fishery Policy decision-making outcomes, and commercial fishery association R4, in the context of influence domination by other interests, illustrate the contrast between participants' perceptions:

"And I think what's most frustrating for us, in the end, is that when you look at the measures as they were implemented, it's clear that they were a compromise in favor of the industry." (R2)

"So the representation is there, and the statements are being written. But they just end up, I don't know, being used as coasters for coffee - they aren't read or taken into account." (R4)

Another theme among participants that influenced the shared perception of limited influence was duration and timing of participation. Recreational fishery R6 stated that they had been able to "secure a reduction in the area" (R6) they were supposed to be excluded from during the 2017 MPA designation process, but that their influence was limited by an abrupt conclusion of the decision-making process due to a change in government. Commercial fishery association R4 and eNGO respondents R2 & R3 highlighted that the timing of participation formats was "at a point when it no longer mattered" (R2) in the decision-making processes and "at a stage where all the negotiations have been finalized" (R3), leading to the impression that "no matter how many statements we write, none of it makes a difference" (R3). R4 recounted participation in a public hearing on the 2017 MPA designation proposal, in which fishery representatives were presented with a finished plan:

"Then suddenly a plan was presented to us and they said, 'This is it; this is what it's going to look like.' I said, 'Huh? We're here to talk about this and see where we can work together with you.' 'Nope,' they said, 'take it or leave it; that's it." (R4)

A key theme among all stakeholders' perceptions of limited influence of participants was the differentiation between participation processes and decision-making processes: While participation processes were perceived as a key element in decision-making processes by all respondents, analysis revealed a clear distinction between the stages of a decision-making process that allowed for the inclusion of input from public participation, and the stages that were central to decision-making. A

statement by commercial fishery association R5 shows this distinction and the associated criticism of decision-makers' treatment of input from participation processes:

"That means they ask the affected parties for their input, and that input is submitted. Yes, but then comes a process of weighing the options, and a decision-making process. And then it might be worth your while to look into how or what kind of input is received, and how it is handled. How does the weighing of facts and argument work? And there are shortcomings there, but those who carry [the public participation processes] out aren't to blame for them; rather, the legislature is imprecise in many areas when it comes to weighing these things." (R5)

Notably, all respondents regardless of their role in participation processes pointed out that they had no final say in the decision-making outcome, with the statement that regulations were "ultimately a political decision" (R1) of ministry heads mirrored among most respondents. As for the decision-making framework for public participation processes, MPA management R1 and political administration R9 & R10 added that, while written statements were legally required to be reviewed, they did not have to be taken into account when designing regulations; additionally, R1 & R8 pointed out the legal distinction between having to reach "'agreement'" (R1) with relevant national authorities due to their veto-power and having to merely "'involve'" (R8) civil society organizations and fishery associations in decision-making processes.

A second key theme was the perceived need for participants to resort to other means of influence outside of public participation processes, such as public engagement and political pressure, in order to influence decision-making process outcomes, mirroring perceptions regarding communication. Political administration R9 stated that, especially in the CFP process, it is difficult for associations to "really make an effective impact on these political processes" (R9), reflecting that "the only way to do that is through political pressure and public engagement" (R9), an impression that was mirrored by eNGO and fishery association interviewees. All eNGO and commercial fishery association interviewees mentioned lawsuits specifically as a last resort for influence they had made use of in the past, but with limited success, as R4 illustrates in the context of the 2017 MPA designation:

"And we filed a lawsuit against that regulation, but it basically came to nothing." (R4)

4.3 Perceptions of meaningful participation: Definition, barriers, and future pathways (RQ3-4)

4.3.1 Stakeholder definition of meaningful participation

Analysis showed four main inductive themes among stakeholders' perceptions of meaningful participation, shared across both conservation or socio-economic interests: 'communication', 'inclusivity', 'integration', and 'timing' (Figure 7). Inclusivity was mentioned most often and by almost all respondents and encompassed the perceived necessity to include all relevant stakeholder groups such as civil society, "the scientific community, government agencies, and user groups" (R3). The second-most mentioned theme of communication includes "transparency and open communication" (R9), with many interviewees underlining "respectful" (65) dialogue "at eye-level" (R2) among stakeholders as key to enabling mutual understanding (R2, R7, R6, R3, R10). Notably, R2, R5 and R8 stated that these dialogues should not be held in a "detached and open-mannered" (R2) way, but with clearly communicated goals in mind. The integration of stakeholders' input was mentioned by the 7 out of 10 respondents, with some stating that input had to at least be "seriously taken into consideration" (R9) and reflected upon in a way that made participants feel heard (R1, R9) and most viewing actual integration of stakeholders' input as key for meaningful participation (R2, R3, R5, R8, R9, R10). Timing participation "right from the start" of a decision-making process" (R2) and keeping up "regular exchanges" (R9) was mentioned as critical to meaningful participation by only half of the respondents (R2, R3, R5, R9, R10), but they highlighted its importance in order for "major changes and influence to still be possible" (R10) multiple times.

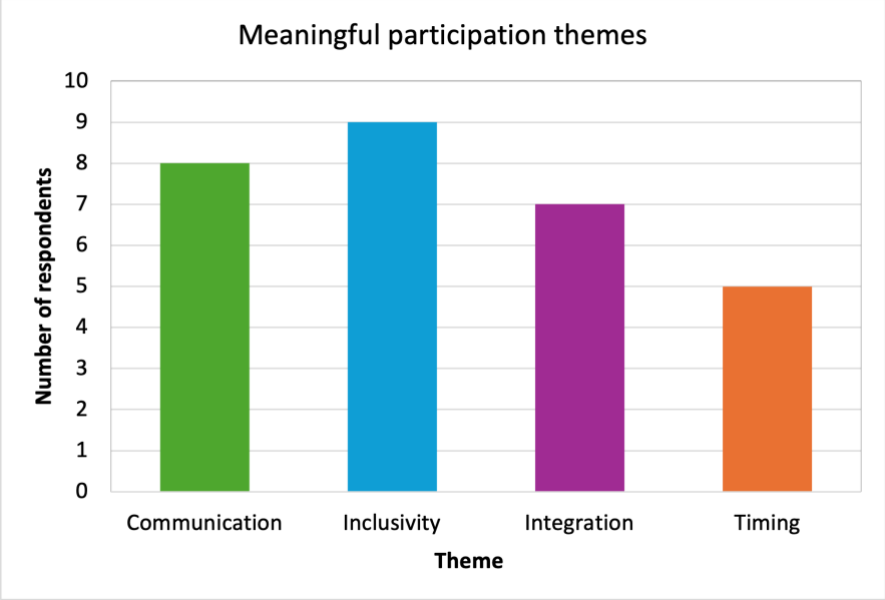

Figure 7. Bar chart depicting the four main inductive themes among stakeholders' perceptions of meaningful participation. Values are representative for how many respondents mentioned the theme. Figure created by author.

4.3.2 Barriers to meaningful participation

Respondents' perceptions of barriers to meaningful participation showed three key inductive themes, namely 'political will', 'capacity & resources', and 'transparency & communication'. Notably, neither MPA management R1 nor political administration respondents R10 and R11 identified 'transparency & communication' as a barrier (Figure 8).

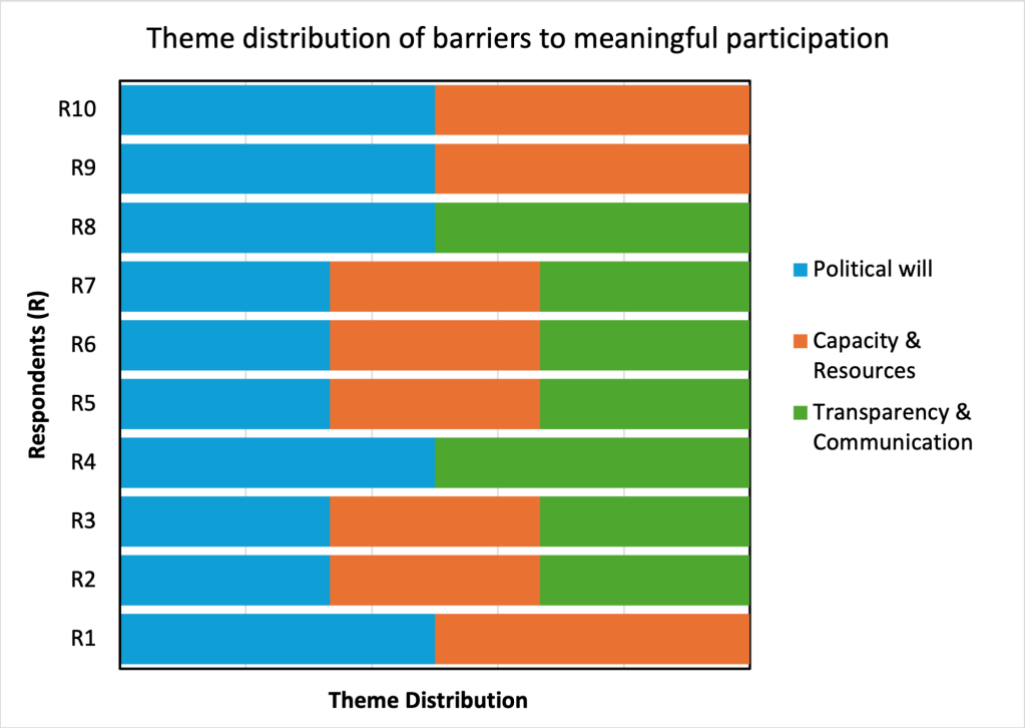

Figure 8. Stacked bar chart illustrating the distribution of three inductive themes characterizing barriers to meaningful participation identified by respondents. Figure created by author.

Political will

Lacking political will to enable meaningful participation was perceived as a main barrier by all interviewees, and included perceptions of conflicts of objectives among participants and process organizers, as well as the perception of a sometimes untransparent (R3, R5) political agenda by decision-makers that inhibited meaningful participation and contributed to dissatisfaction (R1, R2, R3, R4, R5, R6) (Figure 8). Pointing back towards politicians within the government as final decision-makers and bearers of power, a political administration respondent illustrates political will in that "each government always has its own goals and approaches to these [public participation] processes", which had led to "very restrained" participation in the past, and that "specific guidelines always depend on the individual people in the hierarchy" of a ministry. Several respondents further perceived the political agenda that led to conflict of objectives between participants and process organizers in the past as a barrier (R5, R6, R7), with R6 stating that a high "priority of nature

conservation" among process organizers of the 2017 MPA designation decision-making process had impeded "finding common ground" (R6). In contrast, R8 and R10 connected conflicting objectives between fishery associations and eNGOs to a lacking will of process initiators to open decision-making processes for participation early on, as they perceived that "it can sometimes be detrimental to processes when they become polarized" (R10).

Capacity & Resources

8 out of 10 respondents identified a lack of capacity and resources as a key barrier, with "capacity, staff, and funding" (R2), as well as time constraints mentioned as critical factors (Figure 8). While multiple respondents highlighted that meaningful participation processes would take "more resources" (R9) and "funding" (R6) than was usually allocated, R5 and R7 specifically mentioned that lacking expense reimbursements for fishery representatives had limited their ability to join as many forums as they might want to in the past. R10 and R6 highlighted the resource of time as a barrier, pointing out the "time pressure" (R10) public participation processes are under due to external factors such as outside EU pressure or political developments, with R2 specifying disruptions of regular participation formats due to "changes in government" (R2) as a barrier. R2 and R3 went on to highlight Germany's socio-cultural context as a reason for why regular formats and the necessary timeframes for meaningful participation were lacking:

"Well, we set a deadline, then we follow a process, and that's how it's supposed to work. And these more bottom-up structures, which then perhaps grow in an unpredictable way—I don't think we like that, and that's not what our structures are designed for." (R2)

Transparency & Communication

'Transparency & communication' was perceived as a key barrier by most interviewees except MPA management R1 and both political administration respondents (Figure 8). R6 and R8 perceived the lack of neutral spaces and facilitators in participatory processes to be a barrier for meaningful dialogue at eye-level and mutual understanding, as they found that format facilitators in the past had been very close to decision-makers. Furthermore, both fishery association and eNGO respondents identified the lack of clear communication of goals, scientific basis, purposes, and potential outcomes of participation as a barrier. ENGO R2 perceived that a lack of "expectation management" (R2) and "clearly communicating what can be influenced, and what cannot" (R2) had led to conflict in the past.

4.3.3 Pathways for meaningful participation

Analysis revealed three main themes among perceptions of pathways for meaningful participation: roundtable dialogues, the co-development of projects, and the inclusion of broader society (Figure 9).

Roundtable dialogues

Several interviewees (R2, R3, R5, R7, R8, R9, R10) referred to positive examples of roundtable dialogues between both fisheries and nature conservation stakeholders in the past, for example in past participatory committees outside of MPA decision-making processes that were tasked with developing mutual objectives for the future of German fisheries such as the "Commission of the Future of Fisheries" that was held between 2024-2025. Both eNGO and political administration respondents perceived the planned continuation of "these roundtable discussions" (R3) in the form of a 'council for the future of fisheries' (Zukunftsrat Fischerei) as promising pathways for meaningful participation. Commercial fishery association R5 pointed out that participation in these formats would only be meaningful for fishers if there was a clear "focus on specific issues" (R5) and fishery representatives did not have to first "explain to the rest of the world what's happening and lay out certain basics first" (R5).

Co-development of projects

The co-development of tangible and reciprocative projects was identified by multiple interviewees (R1, R3, R6, R7, R9) as a chance for meaningful participation outside traditional decision-making process formats and roundtable dialogues. The potential of both recreational, as well as commercial fishers in supporting, for example, the monitoring of MPAs and thus fostering "more dialogue" (R7) between interest groups was underlined by respondents. R9 pointed towards a general trend of participation of fisheries and eNGOs as a "key consideration" (R9) in the current development of marine policies, and that policy-makers "plan[ned] not only to involve one side or the other" (R9), but to carry out "specific projects or initiatives" (R9). Commercial fishery association R4 expressed doubt that the co-development of projects would improve MPA outcomes for small-scale high seas fishers, as they did not see a future for this specific fishery type.

"But… those are all great things, but if I had a fleet of 100 commercial fishermen out in the North Sea catching plaice and sole and who knows what else, then sure, but for whom? My son's company is the only German one left there. The others are Dutch companies sailing under the German flag." (R4)

Inclusion of broader society

Recreational fishery association R6 and eNGO R2 both perceived the inclusion of broader society in public participation processes as key to create a greater acceptance of MPA regulations and make participation more meaningful. R6 highlights broad "societal participation" (R6) in decision-making processes as "fundamental for acceptance" (R5) of regulations. R2 added that broadening public participation processes to include youth representatives "among both fishing associations and environmental groups" in particular could improve dialogue that is often led by older generations who are "more stuck" (R2) in their ways.

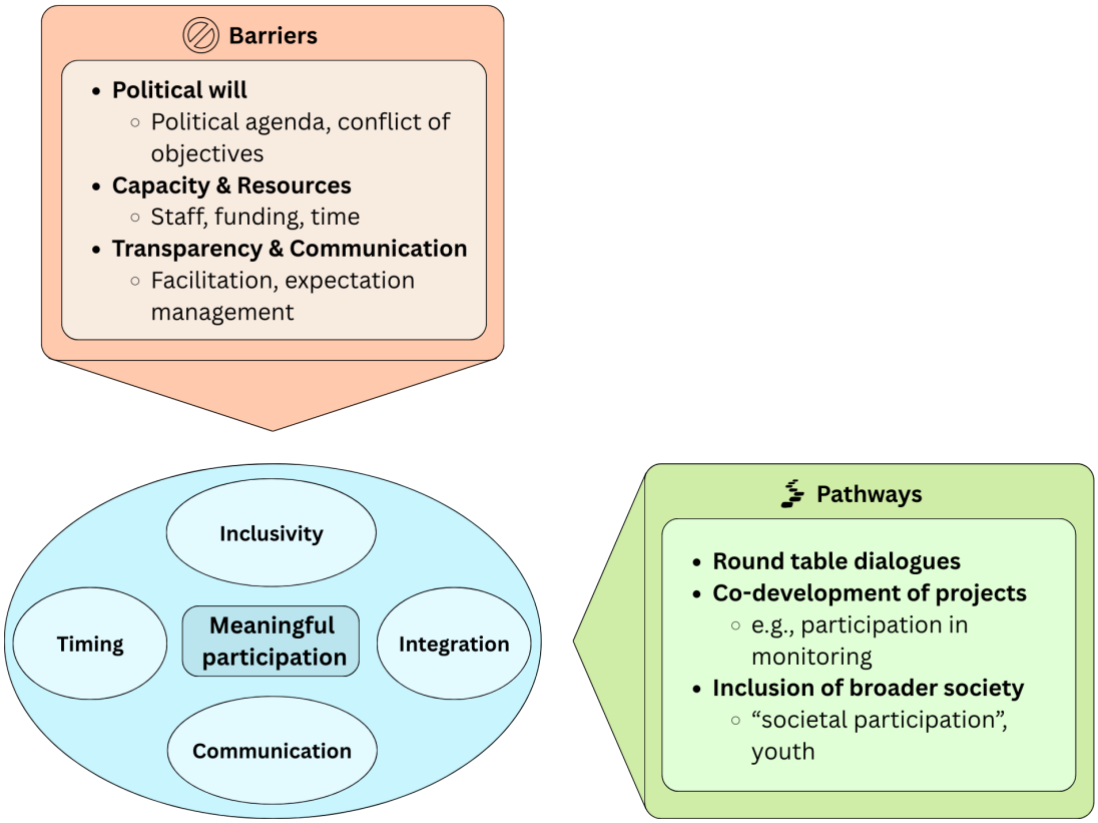

Figure 9. Overview of barriers (orange) and pathways (green) to meaningful participation and its elements (blue) as perceived by respondents. Figure created by author.

5 Discussion

5.1 Summary of findings

Stakeholder perceptions of MPA governance (RQ1) in the German North Sea EEZ were predominantly critical and revealed a broader dissatisfaction with MPA governance yet also reflected two distinct critiques running in opposite directions between conservation and socio-economic/mixed interests. While stakeholders with conservation interests viewed MPAs as essential but criticized governance and regulations as ineffective, stakeholders with socio-economic or mixed interests, particularly fishery associations, perceived governance and regulations as unjustified, disproportionate, and overly focused on restricting fisheries' activities. Regarding stakeholders' perceptions of the three dimensions of participatory governance in decision-making processes (RQ2), findings revealed mixed satisfaction with both stakeholder representation and communication due to, respectively, mutual perceptions of being underrepresented in comparison to the other interests group, and a lack of iteration and transparency of communication among participants and process organizers. Notably, all respondents perceived participants' influence on decision-making outcomes to be low, highlighting clear distinctions between participation and decision-making in MPA governance. Meaningful participation (RQ3) was perceived to require good and transparent communication, inclusivity regarding participants, actual integration of input, and to be timed early and regularly throughout the decision-making process. Respondents stated lacking political will, capacity and resources, and transparency and communication as main barriers (RQ4), and most respondents identified roundtable dialogues and the co-development of projects as the main future pathways for meaningful participation.

5.2 Alignment of findings with literature

5.2.1 The role of interests in governance perceptions

Findings reveal that perceptions of governance were shaped by stakeholders' interests, as they differed strongly between conservation and socio-economic/mixed interests. Bennett (2016) underlines that stakeholder perceptions of governance are always influenced by personal or organizational values and motivations which can lead to greatly diverging views of the same circumstances. Rather than a shared dissatisfaction with governance, what emerged were the two distinct critiques running in opposite directions. Dehens & Fanning's (2018) also found that scientists, eNGOs, and government representatives perceived decision-making processes as too slow and protection as too lacking in regulations, while Stelzenmüller et al. (2024) reported German

fishers' negative perceptions of spatial exclusion from previous fishing areas by MPAs in the North Sea. Multiple other studies highlight commercial and recreational fishers' negative perceptions of governance and of MPAs as "a tool against fishing designed for nature conservation" (Rodrigues et al., 2024, p. 13) due to feeling singled out and most negatively impacted (McNeill et al., 2018), and perceiving regulations as unjustified due to lacking scientific rational and impact evaluation (Gollan & Barclay, 2020; McNeill et al., 2018; Voyer et al., 2015).

5.2.2 Perceptions of participation in decision-making processes

Satisfaction with representation was limited mainly due to mutual perceptions of underrepresentation in contrast to the other interest group(s), also found by Neddersen et al. (2025) in their study on German Baltic Sea MPA governance. These contradictory perceptions could be traced back to the subjectivity of stakeholder perceptions (Bennett, 2016) especially in heavily contested decision-making contexts with opposing interests such as MPA governance (Pita et al., 2020b): When representation in this context is organized around opposing interests, each side's gain could be perceived as the other side's loss, leading to conflicting perceptions. Yates (2018) highlights the importance of perceptions of representation equity to avoid perpetuating existing negative perceptions of governance.

Stakeholders' distinction between communication within and outside participation processes points to a lack of communication extent and deliberation within participation processes. Multiple studies highlight the importance of transparent and extensive communication and dialogue between stakeholders for participatory governance (Bennett et al., 2019; Voyer et al., 2015; Yates, 2018), which can be framed by the concept of deliberation in democratic processes that requires decision-makers to "justify their decisions and effectively respond to the voices, needs, inputs and concerns and options of the communities to which they are responsible" (Brooks et al., 2022, p. 3). Fisheries stakeholders' negative perceptions of regulations as unjustified, as well as lacking iterative and dialogue-heavy formats in official participation processes, indicate that deliberation within communication was lacking. This has been found in other contexts such as the Mediterranean, where Perea-Muñoz et al. (2022) reported that weak and untimely communication negatively impacted fishers' satisfaction with MPA governance.

Notably, evaluating the dimension of power delegation through stakeholders' perceptions of participants' influence in decision-making processes show that public participation in Germany's EEZ MPA governance "remains symbolic and ineffective" (Newig et al., 2023). Multiple studies report similar perceptions of low influence of participants, particularly fisheries stakeholders, in other

contexts (Ban et al., 2017; McNeill et al., 2018; Neddersen et al., 2025; Stelzenmüller, Letschert, et al., 2024). As Newig et al. (2023) suggest: Without delegating a degree of influence to participants, the other dimensions of participation remain tokenistic, highlighting the importance of power and dependencies between dimensions. This is reflected in respondents' statements: While participants' input in decision-making processes was enabled, the timing of these participation formats was perceived as too late to exert any meaningful influence. Furthermore, the role of legal distinctions between 'involvement' and 'agreement' concerning participation indicates that when participation was enabled, the consideration of input was limited by hierarchies inherent to the decision-making process. These findings align with previous studies identifying MPA governance in Germany as a predominantly top-down approach without meaningful delegation of power to participants (Neddersen et al., 2025; Stelzenmüller, Letschert, et al., 2024). As with representation, studies highlight the importance of perceptions of equity concerning influence on decision-making processes, as negative perceptions can impact general perceptions of governance (Bennett et al., 2020; Voyer et al., 2015; Yates, 2018).

5.2.3 Meaningful participation: stakeholder definitions, barriers, and pathways

Elements of meaningful participation as identified by stakeholders in this study highlight what stakeholders want participation to look like and suggest where current participation falls short. Elements align mostly with Yates' (2018) definition by highlighting actual influence of participants on decision-making outcomes, timing participation right from the beginning and consistently throughout the process, and transparency and communication as key factors. Findings diverge on stakeholder representation or 'inclusivity', as stakeholders highlight that a broad range of relevant actors should be involved, while Yates refrains from defining the 'right' number of stakeholders to include for meaningful participation (Yates, 2018). Previous studies identify participation from the beginning and throughout the decision-making process, inclusivity, and integration of input, as well as communication as key for meaningful participation in MPA governance (Charles & Wilson, 2009; Klein et al., 2008; Mast et al., 2025; Muhl et al., 2020; Sayce et al., 2013). Enthoven (2025) highlights that the timing of participation, right from the beginning of designing MPAs, is integral for perceptions of influence and gaining the support of stakeholders. Aligning stakeholders' definition of elements of meaningful participation, besides timing, (inclusivity, communication, integration) with their perceptions of Newig et al.'s (2023) three dimensions (representation, communication, power delegation), shows that meaningful participation is lacking.

Respondents' perceptions of barriers to meaningful participation complement perceptions of Newig et al.'s (2023) three dimensions and imply that barriers are more structural rather than procedural. This suggests that meaningful participation was not hindered due to the design of the processes, but due to broader decision-making structures, a finding that complements the evaluation based on Newig et al.'s (2023) framework. The most often identified barrier was lacking political will, again underlining the concentration of power in political decision-makers such as ministry heads and their dominance in determining the outcomes of decision-making processes. Perceptions of capacity and resources as a barrier highlight meaningful participation as inherently costly and time-consuming for process organizers, but also that this barrier extends towards participants themselves (Yates, 2018) and implies representation inequities in the past due to a lack of expense reimbursements for participation. Notably, all stakeholders but MPA management and political administration respondents identified transparency and communication as a barrier, which connects directly to RQ2 findings on perceived communication deficits by participants, and highlights process organizers' less critical view of current participation processes. These findings are mirrored in multiple other studies, who also identified frequent turnover of decision-makers (Dehens & Fanning, 2018), funding, time, political will (Guénette & Alder, 2007; Hogg et al., 2017), and a lack of neutral spaces and facilitators (Newig et al., 2018) as barriers to more meaningful participation in MPA governance.

Regarding pathways, respondents' identification of roundtable dialogues and co-development of projects as the most promising pathways reflects 'co-management' approaches in literature (Muhl et al., 2020) and what Yates (2018) describes as more collaborative, involvement-oriented participation: Shifting from consultation towards models where stakeholders help shape agendas rather than merely respond to them. Fishery association R5 however highlights that roundtable dialogues should be targeted, while findings on barriers shows that dialogues need to have clear objectives and neutral facilitation. Previous studies find neutral facilitation (Jones & Long, 2021) and clear communication of objectives (Perea-Muñoz et al., 2022) to be key in participatory processes of MPA governance. Furthermore, the barrier of time as identified by multiple stakeholders highlights that participation needs to be enabled consistently and for long enough to allow for meaningful influence. This indicates that meaningful participation in this context should be institutionalized (Reed, 2008) through i.e. the fisheries council body mentioned by some stakeholders, although equity of representation of interests needs to be ensured, which might be impaired with a focus solely on fisheries. In multiple instances, the creation of permanent collaborative platforms for MPA governance such as advisory committees had positive impacts of stakeholders' perceptions of governance (D'Anna et al., 2016; Dehens & Fanning, 2018; Di Franco et al., 2020), have been found to require low investment (Di Franco et al., 2020), and could increase socio-ecological effectiveness of

MPAs (Di Franco et al., 2020). Muhl et al. (2020) highlight the potential of improving stakeholders' perceptions of governance by including MPA stakeholders such as fishers in community science such as monitoring and broadening participation to include youth and their livelihood concerns. However, pessimism about the relevance of these pathways for small-scale high seas commercial fishers by R4 cautions against assuming such pathways are equally accessible across stakeholder groups, particularly where the very fishery type in question faces structural decline.

5.2.4 Power in participatory governance

Findings of this study suggest that unequal power relations inherent to Germany's EEZ MPA governance top-down hierarchical decision-making structure are a major barrier to improving MPAs' socio-ecological effectiveness through meaningful participation. Findings of RQ2-4 as elaborated in the previous sections indicate that, while public participation in Germany's EEZ MPA governance is enabled to a degree, actual power over the outcomes of the decision-making processes is perceived as concentrated with state actors such as relevant national authorities and ministry heads. Particularly, this is shown in the distinction of all stakeholders between public participation and decision-making, and the stated lack of legal obligations to integrate participants' input. These significant power imbalances show that, as Reed (Reed, 2008, p. 2420) states, "stakeholder participation does not take place in a power vacuum". This insight relates back to critical scholars within participatory governance research, who highlight that, while participatory governance is commonly portrayed as a positive-sum approach that facilitates collaboration among different actors, in practice its power dynamics can lead to the exclusion of voices (Chhotray & Stoker, 2009; Reed, 2008). As perceptions and thus socio-ecological effectiveness of governance are strongly impacted by perceptions of participation (Charles & Wilson, 2009; Enthoven, 2025), which were predominantly negative in this study, enabling more meaningful participation by considering power relations is imperative.

Importantly, even if pathways to meaningful participation as laid out in the previous section are realized, it needs to be acknowledged that these spaces are inherently spaces of power within power structures (Chhotray & Stoker, 2009). Thus, careful consideration needs to be given to ensure that participatory spaces do not become "box-checking exercises" (O'Connor et al., 2024, p. 2) without any influence because existing structures have no interest in integrating them, and to ensure that within a process, power imbalances due to factors such as different levels of information or resources are minimized (Chhotray & Stoker, 2009; Yates, 2018). This consideration is especially

important in the EU context, as participation has historically been used to provide legitimacy to decision-making without being substantial (Turnhout et al., 2015).

5.3 Implications

Although participatory governance is increasingly emphasized in international and academic discourse as key to socio-ecological effectiveness of MPAs, this study shows that its implementation in Germany's North Sea EEZ remains constrained in practice due to structural power imbalances which limit power delegation to participants, as well as insufficiently deliberative communication within decision-making processes. These limitations hinder meaningful stakeholder participation in governance and can be argued to constrain overall socio-ecological effectiveness of the MPAs. To address these concerns, these main suggestions should be considered:

- Deliberative formats such as roundtable dialogues should be institutionalized by establishing advisory committees in order to sustain timely participation, the exchange of knowledge, and provide a space for concerns (Dehens & Fanning, 2018; Reed, 2008). These formats however need to ensure:
    - Inclusivity: Allow for the equitable representation of stakeholders and ensure the inclusion of groups such as user groups, civil society, academia, and government agencies. Ensure that power imbalances are addressed, i.e. through monetary compensation for participation.
    - Transparency & Communication: Clearly define objectives and ensure neutral facilitation.
    - Integration: Delegate meaningful influence over decision-making outcomes to participants.
- Further pathways towards meaningful participation and improving stakeholders' perceptions of governance can be taken through community science projects such as participation in monitoring, and by opening up participation to the broader public and youth representatives of interest groups (Muhl et al., 2020).

5.4 Limitations and future research

While the study of perceptions in MPA governance research provides valuable insights, perceptions are inherently subjective and context-dependent, and findings can thus not easily be transferred to

different contexts (Bennett et al., 2019). Furthermore, due to this subjectivity, research using perceptions has generally reported more negative insights into governance, which could be counteracted by also collecting objective data (Ban et al., 2019).

As this thesis aimed to evaluate participatory governance from multiple perspectives, a variety of key stakeholder groups were interviewed, and provided valuable insights. However, the limited sample size within groups and of interviews overall limited this study's ability to make broader claims about stakeholder groups, as interviews represented sometimes only a single perspective within a group. Furthermore, this strongly limits the representation of complexity within stakeholder groups, which was particularly experienced regarding fisheries stakeholders: Germany's fisheries sector is complex, and perceptions would have surely differed between types of fisheries and their respective challenges. This limitation was partly addressed by interviewing key representatives of fishery associations but nevertheless exists.

As this study focused on perceptions, future research concerning the institutional framework limiting participation in this context would be highly interesting. Furthermore, while evaluating stakeholder participation in the governance of large and offshore MPAs is particularly important as they are understudied yet ecologically highly significant (Baker et al., 2025), many interviewees highlighted that they felt participation was especially dynamic in Germany's coastal MPAs. Future research could compare these two different governance contexts by examining whether shore proximity of MPAs plays a role in perceptions of governance and participation.

5.5 Concluding remarks

This thesis examined stakeholder perceptions of participatory governance in Germany's North Sea EEZ MPAs through semi-structured interviews with 10 key stakeholders from the fisheries sector, eNGOs, science, MPA management, and political administration. It investigated perceptions of governance and participation through the lens of stakeholder representation, communication, and power delegation, as well as the concept of meaningful participation. By focusing on one of the key questions within sustainability science, namely, how to enable more equitable, participatory governance of our environment and people, it aimed to contribute to the growing body of research examining marine sustainability from the necessary social science perspective.

The findings show that satisfaction with MPA governance is largely limited, and specific perceptions are influenced by stakeholders' socio-economic/mixed or conservation interests. Perceptions of representation inequities and lacking communication, as well as limited delegation of power over

decision-making outcomes to participants, indicates a lack of participation of fishery association and eNGO stakeholders in governance. For meaningful participation, stakeholders defined inclusivity, communication, actual integration of input, and timing early in the decision-making process as key elements. Barriers were perceived to be a lack of political will, capacity and resources, and transparency and communication.

Together with insights of the three dimensions of participatory governance, these findings suggest considerable power imbalances within a predominantly top-down hierarchical governance of Germany's EEZ MPAs, highlighting the need for increased awareness and considerations of power relations in this context. Most stakeholders identified roundtable dialogues as pathways towards meaningful participation, with some pointing out the potential of co-developing projects and including broader society such as youth. While this study's applicability to other contexts is limited due to the small sample size of interviews, it can be argued that to improve MPAs socio-ecological effectiveness in this context, enabling meaningful participation for all stakeholder groups is vital. The institutionalization of deliberative formats such as roundtable dialogues in advisory committees, as well as increased co-development of projects such as community science through monitoring, are promising pathways. Future research in this context could examine institutional constraints on participation and compare offshore and coastal MPAs to assess how proximity to shore influences perceptions of governance and stakeholder participation.

The future of marine conservation will depend not only on how much we protect, but on how meaningfully we involve people in shaping that protection.

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Appendix

Appendix A: Interview Guide

German Original:

Einleitung

- Könnten Sie kurz beschreiben, inwiefern Ihre Arbeit (/die Ihrer Organisation) mit den Meeresschutzgebieten 'Sylter Außenriff - Vogelschutzgebiet 'Östliche Deutsche Bucht', 'Borkum Riffgrund, und 'Doggerbank' in der ausschließlichen Wirtschaftszone der deutschen Nordsee zusammenhängt?

A. Interessen & Ziele bezüglich MPAs

- Welche Interessen und Ziele haben Sie (/Ihre Organisation) in Bezug auf diese Meeresschutzgebiete?
- Was halten Sie von Meeresschutzgebieten allgemein als Instrument zum Erhalt und der Wiederherstellung mariner Artenvielfalt und Lebensräume?
- Wie definieren Sie erfolgreiche Meeresschutzgebiete?

B. Wahrnehmung der MPA-Governance

Definition von Governance: „Unter Governance/Steuerung versteht man die Strategien, Institutionen und Prozesse, die bestimmen, wer Entscheidungen trifft und wie diese im Rahmen der Naturschutzplanung und -verwaltung getroffen werden" (Bennett et al. 2019)

- Wie beurteilen Sie die Steuerung der Meeresschutzgebiete in der Nordsee-AWZ?
    - Wenn Unzufriedenheit mit Steuerung genannt wird: Wo sehen sie Gründe dafür?
- Welche Entscheidungsprozesse (seit ~2010) hatten Ihrer Meinung nach am meisten Einfluss auf das Management und die Auswirkungen der Meeresschutzgebiete?
- Was hat sich für Ihre Arbeit (oder die Ihrer Organisation) positiv und/oder negativ verändert, seitdem:
    - die Meeresschutzgebiete 2017 offiziell durch nationales Recht geschützt wurden
    - seit die Managementpläne 2020 veröffentlicht wurden
    - seit die kommerziellen Fischereivorschriften 2023/25 eingeführt wurden?

C. Wahrnehmung von Beteiligung in Entscheidungsprozessen

- An welchen Entscheidungsprozessen zu den marinen Schutzgebieten bezüglich dem Schnittpunkt Fischerei und Naturschutz waren Sie/Ihre Organisation in den letzten Jahren beteiligt?
    - Welche Arten von Prozessen/Mechanismen/Foren zur Beteiligung im Zusammenhang mit diesen Entscheidungsprozessen gab es? An welchen haben Sie/Ihre Organisation teilgenommen?
    - Welche Stadien der Entscheidungstreffung gab es?
    - Welche Akteure/Interessengruppen waren an welchen Stadien beteiligt?

- Welche Akteure/Interessengruppen hatten letztendlich Entscheidungsmacht in dem/n Prozess/en?
- Wie würden Sie die Kommunikation und den Austausch zwischen den Interessengruppen und den Entscheidungsträgern in diesen Prozessen beschreiben?

- Inwieweit hat Ihre Beteiligung/die Ihrer Organisation Ihrer Meinung nach die Ergebnisse des Entscheidungsprozesses bzw. die endgültigen Entscheidungen bezüglich der Meeresschutzgebiete beeinflusst?
    - Wie schätzen Sie den Einfluss anderer Akteure & Interessengruppen in diesem Entscheidungsprozess ein?
- Würden Sie sagen, dass Ihre Interessen gut vertreten wurden?

D. Bedeutsame Beteiligung in Governance: Definition, Hindernisse, und Wege für mehr Beteiligung

- Wie sieht für Sie eine bedeutsame Beteiligung von Interessengruppen an Entscheidungsprozessen zu den marinen Schutzgebieten aus?
- Was sind Ihrer Meinung nach die größten Hindernisse für bedeutsame Beteiligung?
- Was sehen Sie als vielversprechendste Wege für eine bedeutsame Beteiligung an Entscheidungsprozessen zu den marinen Schutzgebieten in der Zukunft?

English Translation:

Introduction

- Could you briefly describe how your work (or that of your organization) relates to the marine protected areas 'Sylt Outer Reef – Eastern German Bight', 'Borkum Reef Ground', and 'Dogger Bank' in the German North Sea Exclusive Economic Zone?

A. Interests & goals regarding MPAs

- What interests and objectives do you (or your organization) have in regard to these marine protected areas?
- What is your view on marine protected areas in general as a tool for the conservation and restoration of marine biodiversity and habitats?
- How do you define successful marine protected areas?

B. Perceptions of MPA governance

Definition of governance: "Governance refers to the policies, institutions, and processes that shape who makes decisions and how decisions are made in conservation planning and management" (Bennett et al. 2019)

- How do you assess the governance of marine protected areas in the North Sea EEZ?
    - If dissatisfied: What do you see as the reasons for this?
- Which decision-making processes (since ~2010) do you think have had the greatest influence on the management and outcomes of the marine protected areas?
- What has changed positively and/or negatively for your work (or that of your organization) since:
    - the marine protected areas were formally designated under national law in 2017
    - the management plans were published in 2020
    - the commercial fisheries regulations were introduced in 2023/25?

C. Perceptions of participation in decision-making processes

- In which decision-making processes related to marine protected areas regarding the intersection of fisheries and conservation have you/your organization been involved in recent years?
    - What types of processes/mechanisms/forums for participation existed within these decision-making processes? In which of these did you/your organization participate?
    - What stages of decision-making were there?
    - Which actors/stakeholder groups were involved at which stages?
    - Which actors/stakeholder groups ultimately held decision-making power in the process(es)?
    - How would you describe the communication and exchange between stakeholders and decision-makers in these processes?

- To what extent do you think your participation (or that of your organization) influenced the outcomes of the decision-making process or the final decisions regarding the marine protected areas?
- How would you assess the influence of other actors and stakeholder groups in the decision-making processes?
- Would you say that your interests were adequately represented?

D. Meaningful participation in governance: Definition, barriers, and pathways

- What does meaningful participation of stakeholders in decision-making processes within marine protected area governance look like to you?
- In your opinion, what are the main barriers to meaningful participation?
- What do you see as the most promising pathways toward meaningful participation in decision-making processes related to marine protected areas in the future?

Appendix B: Consent form

Information und Einverständniserklärung

Dieses Formular dient dazu, Sie bezüglich meiner Abschlussarbeit zu informieren und Ihre Zustimmung zur Teilnahme an dieser Studie im Rahmen eines Interviews zu bestätigen. Falls Sie Fragen zu der Studie haben, sind dies meine Kontaktdaten:

Name & Zugehörigkeit: Sophie Boll, M.Sc. Kandidatin in Umwelt- und Nachhaltigkeitswissenschften ('Environmental Studies and Sustainability Science'), Lund Universität, Schweden

E-mail: (removed for privacy)

Telefon: (removed for privacy)

Beschreibung der Studie & Interview:

Mein Name ist Sophie Boll, und Sie sind eingeladen, im Rahmen der qualitativen Forschung zu meiner Masterarbeit an einem Interview teilzunehmen. Meine Masterarbeit beschäftigt sich mit der Steuerung und dem Management von marinen Schutzgebieten in der ausschließlichen Wirtschaftszone der deutschen Nordsee, insbesondere mit dem Schnittpunkt Fischerei und Naturschutz. Dabei liegt der Fokus auf der Rolle der Beteiligung von Interessengruppen in diesem Kontext. Das Interview wird ca. 30-45 Minuten lang dauern. In dem Interview wird erkundet, wie Entscheidungsprozesse abliefen, wie Interessengruppen beteiligt wurden, und ob/welche Hindernisse im Rahmen dieser Beteiligung wahrgenommen wurden. Das Interview wird mit verschiedenen Interessengruppen und Akteuren geführt.

Datensammlung, -Speicherung, und Rechte der Teilnehmerin/des Teilnehmers:

1. Ihre Teilnahme an dieser Abschlussarbeit ist vollkommen freiwillig, und Sie können jederzeit ohne Konsequenzen davon zurücktreten.

2. Die Interviews werden aufgezeichnet und als Audiodateien auf einem privaten Gerät gespeichert, und dann in Schriftform gebracht. Diese Audiodateien werden gelöscht, sobald die Auswertung der Interviews abgeschlossen ist.

3. Während der Auswertung werden die Aufzeichnungen und schriftlichen Transkriptionen vertraulich behandelt, indem die Namen und Organisationszugehörigkeit der Teilnehmer anonymisiert werden. In der Abschlussarbeit werden Interview-Teilnehmer*innen in sehr breite Interessengruppen eingeteilt, was eine mögliche Identifizierung der Organisationszugehörigkeit jedoch nicht vollkommen ausschließt.

4. Die gesammelten Daten werden ausschließlich für akademische Zwecke in Form einer schriftlichen Arbeit verwendet. Zitate aus den Interviews dürfen nur mit Ihrer Zustimmung (s.u.) darin enthalten sein. Die Abschlussarbeit wird auf einer öffentlichen Website veröffentlicht, die von der Bibliothek der Universität Lund verwaltet wird (https://www.ub.lu.se/en/lund-university-library).

5. Die Ergebnisse dieser Studie werden möglicherweise in wissenschaftlichen Fachzeitschriften, Büchern, oder im Internet veröffentlicht. Sollten Sie der Verwendung von Zitaten zugestimmt haben, werden Sie in diesem Fall die Möglichkeit haben, Ihre Zitate vor der Veröffentlichung zu genehmigen.
6. Um Ihre Privatsphäre zu gewährleisten, sind Ihre Teilnehmerrechte durch die Datenschutz-Grundverordnung (DSGVO) der EU und das schwedische Datenschutzgesetz garantiert.

Einverständnis:

☐ Ich habe dieses Formular vollständig gelesen und stimme der Teilnahme an dem Interview zu, wobei ich meine Rechte sowie die Verfahren zur Datenerhebung und -Speicherung kenne.

☐ Ich bin damit einverstanden, dass das Interview aufgezeichnet wird.

☐ Ich bin damit einverstanden, dass anonymisierte Zitate aus dem Interview in dieser Masterarbeit verwendet werden.

_____

Name (Druckbuchstaben)

_____

Ort, Datum Unterschrift

Appendix C: Coding framework

Table C1. Overview over coding framework used for interview transcripts, visualized in a codebook (based on NVivo data). Deductive codes are emboldened. Sources represent number of interviews that themes were identified in.

Name	Sources	References
Barriers to meaningful participation	10	59
Capacity & Resources	8	23
Political will	10	21
Transparency & Communication	7	15
Communication	8	18
Communication inside participation processes	4	6
CFP	7	14
Management Plans	6	7
National designation of MPAs	4	9
Communication outside participation processes	5	12
Definition of meaningful participation	10	64
Communication	8	23
Inclusivity	9	11
Integration	7	12
Timing	5	13
Interests and goals regarding MPAs	10	56
Conservation	6	24
Mixed	4	6
Socio-economic	5	24
Pathways for meaningful participation	10	30
Co-development of projects	6	11
Inclusion of broader society	2	4
Roundtable dialogues	7	13
Perceptions of MPA governance in general	7	12
Good choice of protected areas & goods	2	2
Institutional & process complexity	2	4
Participation lacking	1	2
Participation process legitimate	3	6
Protection lacking	5	12
Regulations protect habitats & species	4	5

Name	Sources	References
Regulations unjustified	3	23
Slow process of implementing protection measures	7	14
Spatial Exclusion	5	20
Too much focus on fisheries regulation	4	21
Power delegation	10	65
Low perceived influence by participants	9	39
Duration & timing	6	10
Others have more influence	7	17
Conservation interests more influential	3	8
Socio-economic interests more influential	5	8
Participation vs. decision-making	7	13
Involvement vs. Agreement	3	5
Proactive public engagement outside of official participation opportunities	5	13
Stakeholder representation	9	25
Negative	7	12
Positive perceptions	5	12