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THE MARINE SPATIAL PLANNING AND THE ADOPTION OF A MODEL OF STRATEGIC INITIATIVES FOR ITS IMPLEMENTATION IN BRAZIL

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ABSTRACT: Several interests, such as urban expansion, coastal development, industrial pollution and fishing, are intertwined with the use and protection of coastal and marine resources. However, disjointed regulation of maritime activities and conflicting pressures have led to a lack of strategic and integrated spatial management. The rational use of the ocean has become a major challenge for coastal countries and regions around the world, and Marine Spatial Planning (MSP) has become a valuable and effective tool to achieve these goals. This article aims to present proposals for strategic initiatives for the management of coastal and adjacent oceanic environments in Brazil to make the MSP viable. The federal legal basis for the MSP in Brazil was analyzed, as well as the models, experiences and practices of the MSP adopted in other countries, the proposals and methodologies for the management of conflicts of marine uses and activities, and interviews were conducted with a focus group of experts. As a result, proposals were identified to be internalized in the legal system, such as the adoption of a Directive adopted by the countries of the European Community or an IOC-UNESCO guide, the adoption of financial tools to support the implementation of the MSP, the interaction of the planning and implementation of the MSP with public policies for coastal management, the pre-establishment of zoning rules for the use of maritime spaces, the identification of parameters to be adopted in determining the use or prevailing activity in cases of conflicts and the establishment of a methodology that strengthens social participation. It is concluded that the implementation of the MSP in Brazil faces a series of complex challenges, but that there are opportunities for the adoption of these proposals, adjusting them to their specific needs, becoming a fundamental tool for the sustainable management of the Brazilian marine heritage.

Keywords: Conflicts, Marine Spatial Planning, Legal Certainty.

RESUMO: *Diversos interesses, como a expansão urbana, o desenvolvimento costeiro, a poluição industrial e a pesca, estão interligados com o uso e a proteção dos recursos costeiros e marinhos. Entretanto, a regulamentação desarticulada das atividades marítimas e pressões conflitantes levaram à falta de gestão espacial estratégica e integrada. A utilização racional do oceano tornou-se um grande desafio para os países e regiões costeiras do mundo, e o Planejamento Espacial Marinho (PEM) tornou-se uma ferramenta valiosa e eficaz para alcançar estes objetivos. Este artigo tem como objetivo apresentar propostas de iniciativas estratégicas para a gestão dos ambientes costeiros e oceânicos adjacentes no Brasil para a viabilização do PEM. Foi analisada a base legal federal do PEM no Brasil, além dos modelos, as experiências e as práticas do PEM adotados em outros países, as propostas e metodologias para o gerenciamento de conflitos de usos e atividades marinhas, e foram efetuadas entrevistas com um grupo focal de especialistas. Como resultados, foram identificadas propostas para serem internalizadas no ordenamento legal, como a adoção de uma Diretiva adotada pelo países da Comunidade Europeia ou guia da IOC-UNESCO, a adoção de ferramentas financeiras para apoiar a implementação do PEM, a interação do planejamento e implementação do PEM com políticas públicas de gerenciamento costeiro, o preestabelecimento de regras de zoneamento para a utilização dos espaços marítimos, a identificação de parâmetros a serem adotados na determinação do uso ou da atividade prevalecente em casos de conflitos e o estabelecimento de uma metodologia que fortaleça a participação social. Conclui-se que a implementação do PEM no Brasil enfrenta uma série de desafios complexos, mas que existem oportunidades para a adoção destas propostas, ajustando-as para suas necessidades específicas, tornando-se uma ferramenta fundamental para a gestão sustentável do patrimônio marinho brasileiro.*

Palavras-Chave: Conflitos, Planejamento Espacial Marinho, Segurança Jurídica.

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1. INTRODUCTION

According to recent data, the ocean plays a central role in the global economy, being essential for maritime cargo transport, accounting for 90% of global trade volume, and for energy production, with over 6,000 oil and gas facilities operating worldwide and supplying nearly 30 percent of the world's energy. This dual role highlights the strategic importance of the seas for global economic development (Gonçalves and Polejack 2022). Various interests, such as urban expansion, coastal development, industrial pollution, and fishing, are interconnected with the use and protection of coastal and marine resources. Activities such as aquaculture, renewable energy, mineral extraction, and recreation also influence marine ecosystems and coastal waters in different ways (Grip and Blomqvist 2021). However, the fragmented regulation of maritime activities and the cumulative measures and conflicting pressures have led to a lack of strategic and integrated spatial management (Ritchie and McElduff 2020).

Moreover, due to the intensifying spatial competition within and between coastal countries and regions, as well as the diversity of sea uses and the lack of coordination mechanisms among maritime departments, conflicts between different uses of the sea are becoming increasingly prominent. In light of these situations, the rational and scientific use of the ocean has become a major challenge for all coastal countries and regions around the world, and Marine Spatial Planning (MSP) has become a valuable and effective tool to achieve these objectives (Hou *et al*., 2022). The objective of MSP is to promote the efficient and sustainable use of marine space, ensuring the protection of fragile ecosystems. MSP also aims to facilitate balanced interactions between different marine users, reconciling economic development, human well-being, and environmental conservation (Jentoft and Knol, 2014).

MSP is a fundamental tool for providing legal certainty and predictability to the private sector, allowing companies from various industries, such as oil and gas, aquaculture, and renewable energy, to operate more efficiently and sustainably. By clearly defining areas of use, promoting regulatory integration, and ensuring mechanisms for environmental compensation, MSP creates a more stable and attractive environment for investment, while also minimizing the risks of use conflicts and environmental damage. Marine resources are essential for economic and social progress, as various industries, such as fishing, tourism, and mining, depend on them. The growing consumer demand, coupled with technological advancements and population growth, has intensified this dependency. In this context, it is crucial to balance economic development with social needs and environmental preservation in ocean management (Ansong *et al*., 2017).

Brazil, encompassing 17 states and 443 municipalities along the terrestrial strip of its Coastal Zone (CZ), made a commitment in 2017 during the United Nations (UN) Ocean Conference to implement its MSP by 2030. MSP is one of the integrated actions under the Sectoral Plan for Marine Resources (PSRM) and is coordinated by the Secretariat of the Interministerial Commission for Marine Resources (SECIRM) and the Ministry of the Environment and Climate Change (MMA).

This article aims to demonstrate that a proposal of strategic initiatives for the Brazilian management of coastal and adjacent ocean environments within a MSP framework can provide a practical way to better organize the use of marine space. The analysis of MSP models adopted especially in the European Community, the identification of public management policies and the federal legal basis in Brazil on MSP and the proposals for strategic initiatives aimed at the management of coastal and adjacent oceanic environments in Brazil, to be incorporated into national legislation, were considered. In this way, it tends to promote improved interaction among its users, minimizing or eliminating conflicts, and seeking to balance development demands with the need to preserve the environment—especially by ensuring legal certainty, increasing investor confidence, and fostering transparency and predictability.

2. METHODOLOGICAL PROCEDURES

2.1 Methods and techniques

The proposal of a model for strategic initiatives for the implementation of MSP in Brazil is the central point that motivates the research and guides the choice of methods employed. Thus, the research methodology includes the following stages: (A) theoretical framework, (B) documental research, and (C) development and application of a semi-structured interview with the focus group. The theoretical framework (A) was established through a bibliographic survey, based on specific databases using specific search terms. To conduct the bibliographic survey, the consultation was made through the virtual library of electronic journals from the Coordination for the Improvement of Higher Education Personnel (CAPES). The main sources were compiled from three specific databases: *Scopus*, *Web of Science*, and *Springer Link*, covering the period

from 2014 – the year the EU Directive 2014/89/EU (Directive 2014/89/EU 2014) was published – until June 2024, with the search filters applied were the terminology "Marine Spatial Planning AND Conflict", with quotation marks. Table 1 presents the selected articles and their categories.

Information from the website The European Maritime Spatial Planning Platform (European MSP Platform) was also used, which deals with MSP information in Europe. A "Global MSP Inventory" is available, designed to provide an updated characterization of MSP processes in Europe and allow for an analysis of the characteristics of these processes. Documentary research (B) involved researching and analyzing relevant Brazilian federal legislation on the topic, conducted through a bibliographic analysis of articles and research published on the websites of federal agencies, in addition to a search in the *Legis*Ambiental database (software), which gathers Brazilian legislation issued by public agencies. The criteria used for the search in the software were the keywords of the research – Marine Spatial Planning and MSP – considering only the current federal legislation, without limiting the publication period. Finally, regarding the application of the semi-structured interview (C), the aim was, through the focus group of experts, to obtain responses about the particularities of experiences, issues, and MSP models worldwide and how these could also be applied as proposals for strategic initiatives for the Brazilian management of adjacent coastal and oceanic environments in the implementation of MSP. For the purposes of preparing this questionnaire, questions were formulated based on an extensive literature review of MSP models. The questions presented to the experts are available in Supplementary Information. A total of fourteen experts were contacted by email, with a response of eight experts. Experts were invited to represent the coastal regions of Brazil, specifically the South, Southeast, and Northeast regions. All of the experts hold a doctoral degree and have experience in different disciplines and areas of expertise. They are considered informant voices who helped to clarify the conclusions of this documentary study and were identified as "experts" due to their extensive knowledge of the interests and activities of institutions related to marine science and MSP. The interviews were initially scheduled by email and conducted with two of the experts, in Portuguese via "Google Meet," with video recordings. At the end, the interviews were transcribed and sent to the experts via email, along with the video link. Later, due to the low response rate for confirming the interviews, a form was created on "*Google Forms*" containing the same questions as the interview. The form link was sent to the other six experts by email.

Table 1. Articles selected by the author.

Category	Source
Conflicts	Jentoft and Knol (2014); Tafon *et al*. (2023); Ye *et al*. (2021); Freeman *et al*. (2016); Wang *et al*. (2024); Pınarbaşı *et al*. (2017); Moore *et al*. (2017); Hou *et al*. (2022); Ramos *et al*. (2015); Tafon *et al*. (2022); Knol-Kauffman *et al*. (2023); Agapiou *et al*. (2017); Prestrelo and Vianna (2016); Yang *et al*. (2024); Fang *et al*. (2019).
Sustainable Development	Qi (2023); Grip (2016); Harris *et al*. (2022).
Renewable Energy	García *et al*. (2020); Young (2015); Christie *et al*. (2014); Azzellino *et al*. (2019); Steins *et al*. (2021); Bonnevie *et al*. (2023); Schupp *et al*. (2021); Zhang *et al*. (2017); Kerr *et al*. (2014); Weiss *et al*. (2023); Tafon *et al*. (2023).
Blue Economy	Gustavsson and Morrissey (2019); Wickliffe *et al*. (2023); Cavallo *et al*. (2020); Tailor *et al*. (2021); Knol-Kauffman *et al*. (2023).
Ocean and Coastal Governance	Gerhardinger *et al*. (2022); Jentoft and Knol (2014); Edwards and Evans (2017); Schupp *et al*. (2019); Wilke, (2023); Chang and Lin (2016); Gogoberidze *et al*. (2021)
Integrated Coastal Management and Coastal Management	Margeson *et al*. (2023); Tuda *et al*. (2014)
Risk Assessment	Muñoz *et al*. (2018).
Data Management, Indicators, and Geographic Information Systems (GIS)	Edwards and Evans (2017); Gimpel *et al*. (2018); Sullivan *et al*. (2015); Yang *et al*. (2024); Pataki and Kitsiou (2022); Wen *et al*. (2022); Zhang *et al*. (2022); Ferreira *et al*. (2018); Danezis *et al*. (2020); Flynn *et al*. (2023); Moore *et al*. (2017); Tuda *et al*. (2014).
Marine/Ocean Zoning and Land Use Planning	Madarcos *et al*. (2022); Lester *et al*. (2017); Rempis and Tsilimigkas (2023); Wang *et al*. (2024).
Stakeholders and Public Participation	Wen *et al*. (2022); Wilke (2023); García-Sanabria *et al*. (2021); Jentoft and Knol (2014); Margeson *et al*. (2023); Steins *et al*. (2021); Madarcos *et al*. (2022); Zhang *et al*. (2017).
Coastal and Marine Tourism	Papageorgiou (2016)
Offshore Hydrocarbon Exploration	Verón *et al*. (2022)
Learning Experiences	Ullah *et al*. (2021)

3. LITERATURE REVIEW

3.1 WHAT IS MSP?

MSP is a public process of analyzing and assigning the spatial and temporal distribution of human activities in marine areas to achieve ecological, economic, and social objectives, which are typically specified through a political process (Ehler and Douvere 2009). MSP can be defined as a process through which the competent authorities of Member States analyze and organize human activities in marine areas to achieve ecological, economic, and social objectives (Directive 2014/89/EU 2014). Thus, MSP is a management process that organizes and coordinates the use of marine space and resources in a sustainable manner, considering environmental, social, and economic aspects, with the goal of minimizing conflicts and preserving marine ecosystems.

MSP has been widely recognized as a crucial regional policy to replace the fragmented and sometimes contradictory approach of sectoral policies, adopting a more integrated, holistic, multisectoral, and participatory model. Based on the concept of sustainable development, MSP seeks to achieve interconnected ecological, economic, and social objectives, thus aligning with the goals of the United Nations (UN) 2030 Agenda for Sustainable Development and the global movement toward sustainable ocean economies (IOC-UNESCO 2022). Marine zoning alone, without adequate planning, cannot be considered a MSP. Although some marine sites that have adopted zoning without structured planning, it is important to highlight that an effective MSP process should result in a comprehensive and adaptive marine spatial management plan. This plan should be the main output of the MSP process, setting goals, objectives, and a vision for the future, and serving as a guide for decision-making throughout the implementation of the plan (Ehler 2021). Figure 1 shows the continuous MSP cycle.

When developed properly, MSP can bring significant economic, social, and environmental benefits. Table 2 presents some of the most important benefits of MSP.

3.2 ENGAGEMENT IN MSP INITIATIVES

International practices clearly indicate that MSP is a multidisciplinary approach, and its implementation can help reduce conflicts, improve socioeconomic activities, promote sustainable development, and build a friendly environment among different stakeholders. Several global, regional, and national initiatives have been implemented to date. Numerous marine countries have also analyzed the practices adopted in other developed and developing countries for integrated coastal and marine area management and have subsequently adopted the proposed MSP based on what they consider appropriate and feasible for their geopolitical environments (Ullah *et al*., 2021).

In 2013, the European Parliament and the Council adopted Directive 2013/133 (European Parliament and of the Council 2013) creating an integrated framework for Marine Spatial Planning and Integrated Coastal Zone Management (ICZM).

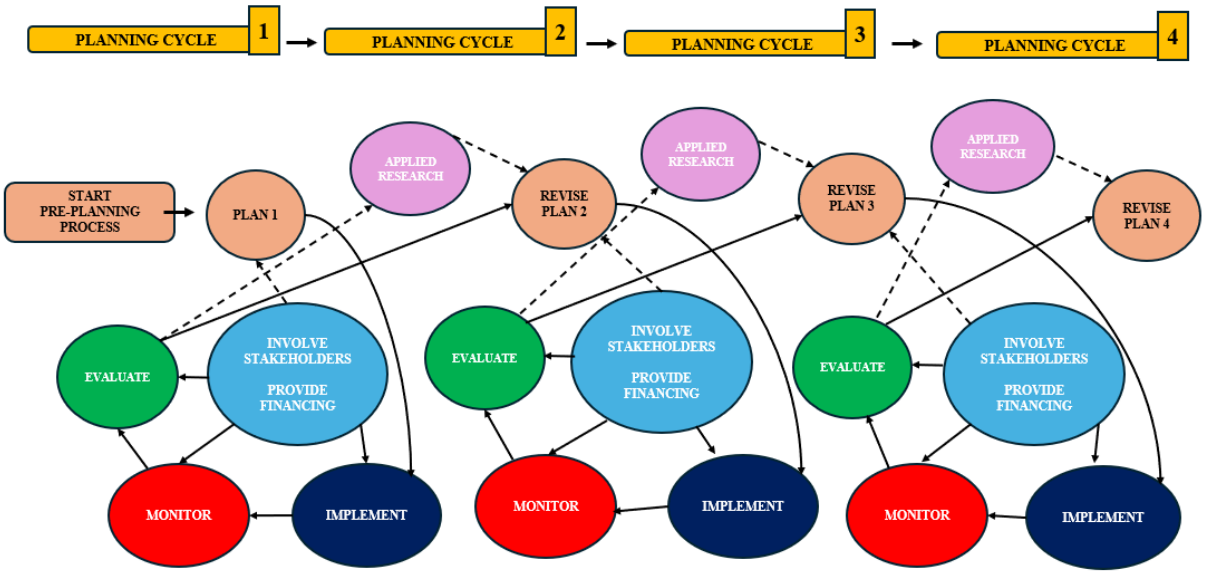

Figure 1. MSP continuous cycle (adapted from Ehler and Douvere, 2009).

Table 2. Most Important Benefits of MSP. (Adapted from Ehler and Douvere, 2009).

Ecological/ Environmental Benefits	Identification of biological and ecological important areas
	Biodiversity objectives incorporated into planned decision-making
	Identification and reduction of conflicts between human use and nature
	Allocation of space for biodiversity and nature conservation
	Establish context for planning a network of marine protected areas
	Identification and reduction of the cumulative effects of human activities on marine ecosystems
Economics Benefits	Greater certainty of access to desirable areas for new private sector investments, frequently amortized over 20-30 years
	Identification of compatible uses within the same area of development
	Reduction of conflicts between incompatible uses
	Improved capacity to plan for new and changing human activities, including emerging technologies and their associated effects
	Better safety during operation of human activities
	Promotion of the efficient use of resources and space
	Streamlining and transparency in permit and licensing procedures
Social Benefits	Improved opportunities for community and citizen participation
	Identification of impacts of decisions on the allocation of ocean space (e.g., closure areas for certain uses, protected areas) for communities and economies onshore (e.g., employment, distribution of income)"
	Identification and improved protection of cultural heritage
	Identification and preservation of social and spiritual values related to ocean use (e.g., the ocean as an open space)

Then, in July 2014, Directive 2014/89/EU (Directive 2014/89/EU 2014) was adopted, which established the key guidelines for a common framework for the implementation of MSP. (Tsilimigkas and Rempis 2018).

A total of 126 countries/territories were identified, by the end of 2023 as engaged in MSP initiatives – an increase of 20% from the assessment completed for the 2022 Pilot StOR (IOC-UNESCO, 2022), according to Figure 2.

The adoption of MSP continues to accelerate worldwide, with the approval and implementation of marine spatial plans still relatively low beyond Europe, perhaps due to the lack of legal frameworks. Monitoring and evaluation of MSP around the world is important to understand how the plans are implemented and can be improved (IOC-UNESCO 2024).

According to Directive 2014/89/EU (Directive 2014/89/EU 2014), Member States are free to design and determine the format and content of their marine spatial plans, including institutional arrangements and the allocation of maritime activities (Directive 2014/89/EU 2014). As an example, in April 2014, before the publication of the European Union (EU) MSP Directive, the first Portuguese MSP framework law was promulgated – Law Nº 17/2014 (Portugal 2014). As a "framework law", the diploma had a very broad nature, laying the foundations for national ocean planning and management, establishing the general framework for legal licensing regimes, and identifying "preference criteria" for the use of maritime space. Yet, it did not specify operational details (Calado *et al*., 2023). Afterwards, the Decree-Law Nº 38/2015 (Portugal 2015), published in March 2015, further develops key aspects of the Law and transposed the EU MSP Directive. It defines two types of maritime spatial planning instruments, the Situation Plan (PSOEM) and the Allocation Plan (AP) (Fernandes *et al*., 2020). The Decree-Law also brings an important point, regarding the evaluation of preference criteria when there is a conflict between existing or potential uses or activities in the same area or volume of the national maritime space, the public entity responsible for preparing the allocation plan, for the purposes of determining the prevailing use or activity.

3.3 PUBLIC POLICIES AND THE NATIONAL LEGAL BASIS FOR MSP

3.3.1 Public Management Policies

Brazilian initiatives related to maritime issues result from specific public policies focused on the sea. Notably among them are the National Maritime Policy (PMN), the National Policy for Marine Resources (PNRM), the Sectoral Plan for Marine Resources (PSRM), and the National Coastal Management Plan (PNGC).

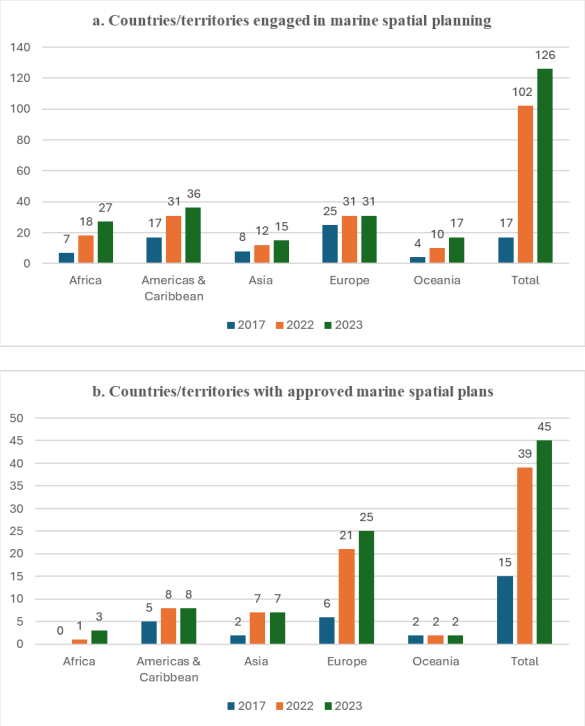

Figure 2. IOC-UNESCO assessments about marine spatial planning status around the world. (Adapted from IOC-UNESCO, 2024).

The PMN, initially established in 1984 and later revised in 1994, approved by Decree Nº 1.265 (Brasil 1994), which repealed the previous version, aims to guide and develop the country's maritime activities in an integrated and harmonious manner. Its focus is on the effective, rational, and full utilization of the sea and inland waterways, aligned with national interests. The PNRM, approved by Decree Nº 5.377/2005 (Brasil 2005) in turn, aims to guide the development of activities aimed at the effective use, exploration, and utilization of living, mineral, and energy resources in the Territorial Sea, the Exclusive Economic Zone, and the Continental Shelf, in accordance with national interests. In alignment with the PNRM, the Interministerial Commission for Marine Resources (CIRM) published a Resolution Nº 6, in November 2023 approving the 11th PSRM (CIRM 2023), which will be in effect from January 1, 2024, to December 31, 2027.

Regarding the CZ, as an integral part of the PNRM and the National Environmental Policy (PNMA), approved by Law Nº 6.938/1981 (Brasil 1981) the PNGC, approved by Law Nº 7.661/1988 (Brasil 1988), with its details and operationalization outlined in CIRM Resolution Nº 01/1990 (CIRM 1990). In 1997, CIRM Resolution Nº 05 (CIRM 1997) approved the PNGC II. One of its core principles is the integrated management of terrestrial and marine environments within the CZ, ensuring the development and maintenance of transparent and participatory decision-making mechanisms based on the best available information and technology, as well as the convergence and harmonization of public policies at all levels of administration. Subsequently, Decree Nº 5.300/2004 (Brasil 2004) regulated Law Nº 7.661/1988 (Brasil 1988), establishing various articulated and integrated instruments for CZ management. The CZ plays a fundamental role in MSP, and its management is crucial to the success of any marine spatial planning initiative. As the interface between land and sea, the CZ is a highly dynamic and vital area, both ecologically and economically. Therefore, its integration into MSP processes brings a range of benefits.

3.3.2 The legal basis for MSP in Brazil

In 2013, the CIRM published the Resolution Nº 1 (CIRM 2013), which approved the creation of a Working Group (WG) for the analysis, study, and proposal of guidelines and recommendations, as well as its institutional, normative, and regulatory framework, related to the "shared use of the marine environment" (WG-UCAM). With the publication of Ordinances Nº 18 and Nº 19, both in 2014, by the Secretariat of the Interministerial Commission for Marine Resources (SECIRM), working groups on Marine Spatial Planning (MSP) and Legislation (LEG) were established to conduct the necessary studies for implementing the shared use of the marine environment. Subsequently, in 2019, Ordinance Nº 236/MB of the Brazilian Navy (MB 2019) established the MSP Technical Group (TG-MSP), replacing WG-UCAM and its two working subgroups (MSP and LEG).

In 2015, the United Nations General Assembly approved the 2030 Agenda for Sustainable Development. In the same year, Brazil ratified the adoption of the 2030 Agenda, including its 17 Sustainable Development Goals (SDGs) and 169 targets. Subsequently, with the publication of the Decree Nº 8.892/2016 (Brasil 2016), the country established the National Commission for the Sustainable Development Goals. In December 2018, Ordinance Nº 386/MB (MB 2018) was published, established by the CIRM Resolution No. 2 (CIRM 2018), to approve the creation of the SDG 14 – Life Below Water – Working Group, with the purpose of contributing to, discussing, and monitoring the implementation of the SDG targets.

In 2020, Ordinance Nº 235/2020/MB (MB 2020) created the Executive Committee "EC - MSP", with the purpose of carrying out the tasks necessary to meet the goals and achieve the objective established for the "MSP" Action, part of the PSRM. Later,

the CIRM Resolution Nº 7/2023 (CIRM 2023) was published, approving the proposal for the Vision and Principles of MSP in Brazil, aiming to support the development and implementation of MSP processes in the country.

The Decree Nº 12.363/2025 (Brasil 2025), substitute for Decree Nº 10.544/2020 (Brasil 2020), approves de XI PSRM, having as one of its objectives to promote the establishment of shared and sustainable use of the marine environment in the country, through the development and implementation of the MSP in a participatory and ecosystem-based manner. On June 5, 2025, World Environment Day, Decree Nº 12.491 (Brasil 2025) was published, establishing basic and general information for the Marine Spatial Planning, presenting, among others, the objective, guidelines and principles, as well as determining that the first PEM must be completed by 2030 and that it will also be submitted to the CIRM for consideration and consolidated by an act of the federal Executive Branch. The table 3 presents a summary of the legal basis for MSP in Brazil.

Conversely, in 2013, Bill 6969 (Brasil 2013) was introduced in the Chamber of Deputies, aiming to "Establishes the National Policy for Integrated Management, Conservation and Sustainable Use of the Coastal-Marine System (PNGCMar)", also called "Law of the Sea". In May 2025, the Bill was approved by the Chamber of Deputies and is now awaiting analysis by the Federal Senate, now as Bill Nº 2673/2025 (Brasil 2025).

For the implementation of the national MSP, the Brazilian maritime space was divided into four sections: South, Southeast, Northeast, and North, starting with the MSP Pilot Project in the Marine Region of Southern Brazil. This project is particularly significant as it covers a maritime area of more than 10% of Brazil's total area and provides the opportunity to consider planning alongside an international border (Uruguay). The creation and establishment of a marine spatial management plan not only enhance legal security but also serve as a more rational way to organize the use of marine space and the interactions between its various uses (Andrade *et al*., 2024). The Project involves three phases, and includes the activities described as shown in figure 3.

4. RESULTS AND DISCUSSIONS

This chapter presents the summary of the expert's responses, presented in Table 4, and an analysis with the context of the literature, according to the questions of the interview conducted by the researcher.

Regarding question number 1, according to the presented responses, it was not possible to confirm a consensus among the research participants. A smaller portion of the participants believes it would not be appropriate to use a Directive for South American countries to establish a framework and a common set of requirements for MSP. The reasons given for this position include the distinct realities between South America and Europe, the absence of a unifying instrument for this joint institutionalized cooperation in South America, the need for a public policy analysis and the standardization of instruments, guidelines, and objectives among countries. Participants suggested that a preliminary diagnosis should first take place before MSP is subsequently elaborated and implemented individually, the different legal status and the financial support capacity provided by the European Union to its member states

Table 3. The legal basis for MSP in Brazil

Responsible body	Legal Requirement	Publication Year	Objective
CIRM	Resolution Nº 1	2013	Working Group-UCAM
SECIRM	Ordinances Nº 18 and Nº 19	2014	Working Group-MSP and Working Group-LEG
Brazilian Navy	Ordinance Nº 236/MB	2019	Technical Group-MSP
Federal Government Brazilian Navy	Decree Nº 10.544 Ordinance Nº 235/MB	2020	X PSRM EC-MSP
CIRM	Resolution Nº 7	2023	Vision and Principles of MSP
Federal Government	Decree Nº 12.363	2025	XI PSRM
Federal Government	Decree Nº 12.491	2025	Establishes Marine Spatial Planning

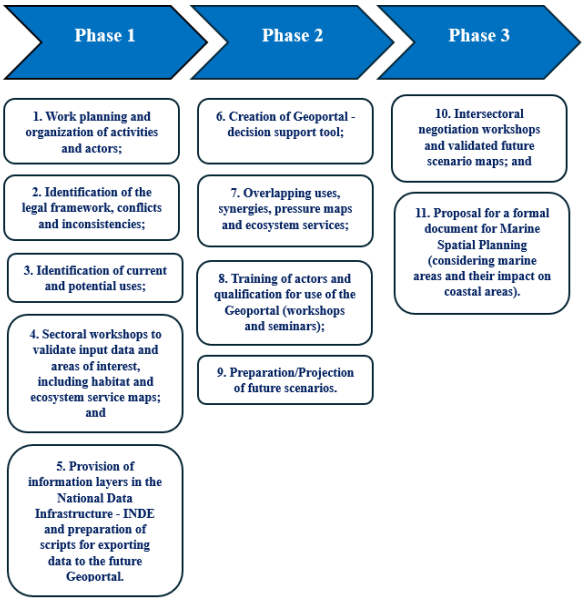

Figure 3. Activities to be developed in the 3 phases and activities of the technical study for the implementation of the MSP Pilot Project in the Southern Marine Region of Brazil.

(Adapted from BNDES, 2022).

and the existence of the IOC-UNESCO guidance document for MSP, which was pointed out as a relevant reference for the Brazilian case, with the necessary adaptations.

According to the considerations of Directive 2014/89/EU, "an integrated approach to the planning and management of oceans and maritime governance has been developed within the framework of MSP for the European Union, including, as its environmental pillar, Directive 2008/56/EC" (Directive 2014/89/EU 2014). In all coastal EU Member States, "MSP has been developed in accordance with the EU MSP and the Maritime Spatial Planning Directive" (Lahde *et al*., 2024). Member States have the responsibilities and abilities to design and determine the format and content of these plans for their marine waters (Stan 2022). As established by the European MSP Directive, each Member State of the European Union will have the autonomy to plan its own maritime space, while regional planning in shared basins should be harmonized through common requirements. This coordinated MSP approach aims, among other benefits, to reduce conflicts, stimulate investment, strengthen cooperation both between national administrations and between countries sharing the same basin, and finally, contribute to the protection of the marine environment, through the assessment of challenges and opportunities related to the sustainable and integrated use of maritime space (Abramic *et al*., 2018). Checking the calls for proposals of the MSP in Brazil, it was pointed out that the UNESCO guide (2009) constituted the great conceptual and methodological reference for the MSP Projects for the South, Southeast and North regions of the country.

Regarding funding, comparing the European reality with the Brazilian case of MSP implementation, the calls for proposals of the MSP Pilot Project in the Southern Marine Region of Brazil (BNDES 2022), and the Southeast (BNDES 2023) and North (BNDES 2024) regions, foresee financial support from the National Bank for Economic and Social Development (BNDES), through the Project Structuring Fund - "BNDES FEP", while the terms of reference for the MSP Project for the Northeast region foresee support from the Brazilian Biodiversity Fund (Funbio), "being financed with resources from the Commitment Term nº 1777032 between Petrobras and IBAMA, as part of the environmental compensation for the adaptation of the company's offshore production platforms in relation to the disposal of produced water" (Funbio 2023). In the European case, to support its implementation, Directive 2014/89/EU determined that "the European structural and investment funds, including the European maritime and fisheries fund, shall provide opportunities to support the application of this directive for 2014-2020" (Directive 2014/89/EU 2014). MSP is not possible without adequate financial resources (Ehler and Douvere 2009).

Regarding question number 2, participants generally reported that the land-sea interaction and the involvement of coastal states and municipalities represent one of the major challenges for MSP. The land-sea interaction is a complex phenomenon that involves both natural processes along with the land-sea interface and the measurement of the socio-economic impact of human activities occurring in the CZ (Aivaz *et al*., 2021). MSP has the potential to be a tool with a broader scope than Integrated Coastal Management (ICM), encompassing the ocean depths and the Exclusive Economic Zone (EEZ) up to the inner regions of the CZ, where dynamic interactions intensify, both between human uses and between these and the environment (Papageorgiou 2016). Coastal areas are interdependent with the sea in both human uses and natural conditions, and therefore, most human marine activities are functionally connected to the coast and vice versa (Stanchev *et al*., 2018). MSP employs two integrated concepts, the ecosystem-based approach and land-sea interactions (Lahde *et al*., 2024). Therefore, land-sea planning has been incorporated as an integral part of the European MSP preparations (Hietala *et al*., 2021). Although terrestrial activities can directly impact marine areas, MSP focuses only on maritime activities and

Table 4. Summary of expert's responses

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 1	"In Europe, the problem there has a characteristic of conflict. Because many countries with a lot of capacity are trying to explore a relatively small and shared oceanic space, comparatively with others (...) If I make a comparison with the South American reality, we don't have the same necessity. Brazil, pragmatically, perhaps, I don't know if it would have much to gain from a directive, because it would have to concede (...) thinking in the long term, inevitably we will have border issues (...) in the short term, I wouldn't see this need as so important, it doesn't have the same importance. Brazil can handle its MSP without having a South American Directive. In the medium and long term, I think the needs and advantages begin to appear".	"And politically, well, that's a decision, it's not whether the MSP policy will advance to the interaction zone or whether there will have to be a harmonization of policies, or whether the MSP will necessarily have to interact with the CZM (Coastal Zone Management), if it wants to have minimum success, because there's no way around it, and the examples are various (...) Regarding the state coastal management plan and the municipal plan, where 'everyone' must 'talk' to have an interaction, 'that's a problem, because the MSP is characteristically federal, although the State may have one, but the problem is that even if the State has the interest and participation in this, the waters are federal, beyond the Territorial Sea and the Continental Shelf.' So, reconciling state and municipal policies with federal policy is more complicated".	"So, what is expected from these guidelines? First, that they improve the efficiency of use, even if it is shared. Some places, for some reason, will not allow the sharing of use, and perhaps they will only allow exclusive use, which would make sense to grant a concession! (...) Suddenly, it can present some possibilities for combination or public use, right, or shared use, use even if authorized. So, again, the guidelines, recommendations, or criteria, these are established on the 'board'. Now, the final decision, again, is made by the government, by a manager, by a group of stakeholders, which can be more or less participatory – it's good if it's participatory – the economic interests will appear".	"The question is whether this is the best criterion to define conflict. I think, in summary, it's a matter of policy. I think criteria, let's call them 'tie-breaker criteria,' could be a mix of the three things (environmental, economic, and social). And not necessarily just one line like that, a more economic predominance. (...) This is clearly an economic development criterion. Can it be used in Brazil? Yes. Is it the best? Well, to be discussed. Are there alternatives? Certainly there are alternatives, right? It has to be discussed. It's politics!".	"The involvement of these social actors from the beginning is a fundamental pillar for the success of any spatial planning, and Marine Spatial Planning (MSP) is no exception. The lesson learned from Coastal Zone Management (CZM) about the importance of participation is crucial and cannot be ignored. As you rightly point out, even the most basic level of participation, which is informing and obtaining feedback, is already an essential starting point for engaging social actors. When people feel part of the process, understand the advantages, and have their interests considered, the probability of successful approval and implementation increases significantly. Imposition without participation, as you put it, usually leads to resistance and the constant need for oversight. Your two pillars for the functioning of any coastal management program – a coordination mechanism and a formal participation mechanism, preferably with a legal basis – are equally valid for the MSP. Coordination ensures articulation between different bodies and levels of government, while participation ensures the involvement of various social actors. Your warnings about the risks of a restrictive or overly universal plan are also important. The MSP needs to be directed at an objective case, with clear limits, and participation must be carefully managed to ensure that all relevant voices are heard without compromising the feasibility of the process. Participation in all stages, from conception to implementation, and the leadership of people with knowledge of the dynamics are key elements for effective governance of the MSP. Understanding the need for participation and the ability to define the relevant universe of actors are crucial to prevent the process from getting lost. This is called governance".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 2	"Yes. It should be sufficiently flexible to accommodate national particularities. Furthermore, it would be necessary to create a regional forum for discussion focused on the sea, which does not exist at the moment".	"States and municipalities have their participation guaranteed to the extent that representatives and rounds of debates, in addition to the normative and regulatory issue itself, are included in the winning proposals of the South, Southeast, and Northeast MSPs. Previous plans need to be considered in the MSP to avoid rework and conflicts of interest, policies, and norms".	"It is possible that there are pre-established rules for the coexistence of uses and activities, considering regional particularities, seasonality, national priorities, and social returns. The definition of a zoning will eventually occur due to the nature of certain activities carried out at sea. For the last question, yes. The challenge lies in how to operationalize this".	"In the decree, I missed the environmental/climatic issue. The mention of 'ensured the singular values of identified biodiversity, the good environmental status of the marine environment, and the good status of coastal and transitional waters' is very broad and vague, without any parameters pointed out".	"The effective participation of the population in the process is KEY. I emphasize that this should occur not only throughout the development of the national MSP, but even after and throughout its implementation. Due to the asymmetry of the actors in question, lobbies can occur and jeopardize the transparency and effectiveness of the MSP in the country. Simple language, with infographics and other knowledge transfer dynamics, are certainly key to engaging the population in the process".
Specialist nº 3	"I consider this joint institutionalized articulation in South America difficult. There is a lack of an aggregating instrument in this regard, and on top of that, South America is one of the most complex regions in terms of 'full adherence to the United Nations Convention on the Law of the Sea of 1982'. Perhaps through the lens of a call in the area of Security and Defense, it would be easier to do so in the context of ZOPACAS".	"This is one of the biggest challenges for the MSP-Brazil, even more so with the design of the Federative Pact established in the Federal Constitution. This vertical coordination does not exist, and even if it is agreed upon, it is not guaranteed that it will be accepted by all the entities involved (17 coastal states and more than 430 coastal municipalities)".	"The question makes several considerations that cannot be taken as premises. There is no provision for 'areas of common use' nor for 'areas of private use' - these are not the guidelines of UNESCO that underpin the design of Brazil's INTENDED MSP. Coexistence or even alteration should be managed by the MSP Management Plan, and it is this capacity for swift and well-founded management that can increase the sense of 'legal certainty'".	"While ONE MORE possible parameter to be considered in the Management Plan to be proposed in the MSP - yes, it can serve with adjustments. However, the Portuguese case does not serve as a parameter to be 'applied' because, there, the Brazilian federative pact with distinctions of competencies does not exist. At a minimum, coastal management would also have to be considered".	"The question also induces several premises. One moment is social participation in the formulation of current uses, conflicts, and potential utilizations - AT THIS MOMENT, it is fundamental and should be as comprehensive as possible. And there are methodologies in the calls for proposals requiring these debate workshops - sectoral and intersectoral. Another moment is 'during the period of validity and the possibility of evolution of the MSP'; in this phase, social participation is not the reason for existence and could make swift management with legal certainty unfeasible; at this point, it is specific in the face of conflicts to be weighed. Regarding the eventual prominence of a more economic view of the MSP, this is an induction that does not correspond to what is foreseen in the Calls for Proposals already launched for the South-Southeast-Northeast MSPs; on the contrary, the view on the study of habitats and ecosystem uses and services reinforces a diametrically opposite fundamental position to that indicated at the beginning of the question".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 4	"Yes, that would be interesting".	"Within the MSP process, the definition of the study area and its limits is the basis for the application of the diagnosis, analyses, and evaluations; this definition must consider the limits and responsibilities of action. Furthermore, before the development of the MSP (Plan), exercises to reconcile visions and strategic plans should be carried out to align the goals (direction/destination) of the plan. This should contribute to minimizing conflicts between the entities and their planning. The influence should be defined according to the role and responsibility that each administrative entity commits to, voluntarily and legally. The planning systems should serve as the basis for defining the long-term vision, goals, objectives, and activities of the marine management plan".	"Zoning is a technique and/or instrument that can be used during the analysis and identification stages of areas allocated for each activity. If the zoning described only considers the 3 types of areas, it would only hinder the process. The definition of activity coexistence and/or conflicts should be flexible and, preferably, negotiated among stakeholders. Leaving rigid coexistence/conflict criteria can bring greater divergences. Before focusing on what can or cannot be done, we should focus on how to make them coexist. In conclusion, there should coexist cyclical and negotiable coexistence agreements with a regular periodicity".	"The methodology could be taken as a reference and adapted to the Brazilian reality. The most important thing when defining fixed evaluation criteria is to define the measurement indicators to be able to establish when there is or is not conflict, e.g., How do I determine the 'social responsibility of stakeholders'?"	"The activities are being confused with the participants/stakeholders and the participation methodologies. In other words, an indigenous land area may have some economic or conservation activity. The aptitude of the space should define the best use. Public hearings/consultations are not necessarily the best participation techniques for a strategic study like the MSP. This does not mean that the local or regional population cannot participate. For this participation, techniques that are more suitable for the collection of information and consensus on the compatibility/conflict of use of the marine and coastal space should be defined".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 5	"I think it would be interesting. I think it would be very important to have, right? This document. However, the big question is that when we do a comparative analysis, right? Of the European Directive document, we have to understand that when we do coastal management, one of the fundamental issues is the analysis of public policies (...) And for this, it would be necessary to exactly standardize the instruments, the guidelines, the objectives among the countries, right? In such a way that there can also be a standardization. Standardization, but a consensus on sectoral issues, right? (...) So, this framework and common requirements for the Countries, right? And it's a herculean challenge, right? Because, for you to have a common framework, and a set of requirements to implement an MSP among nations... I think it's a very complex issue, mainly because what weighs most in this process, right, is the military strategic issue, right? (...) So I think this is a very complex issue, in my view, and then you propose that these countries can, from it, legally internationalize this directive. I think it's very difficult in my opinion, right? To legally internationalize this Directive regarding the use of marine space between countries, right? You are talking about territories with mineral and natural resources, and that's a very complex issue that needs to be first diagnosed and studied, raised, so that you can later, logically, elaborate and implement the MSP individually".	"So, for us to understand this, within the land-sea interactions, then logically a question that comes up again is public policies, because there's no way to understand this land-sea interaction. When we think about the land-sea interaction, we are already talking about the coastal zone. It is exactly this interaction between land, sea, and air – and I think it would even be important for you to include the air as well, because the relationships between air and sea, and air and land and sea, are fundamental, including for understanding the issue of climate change and everything else (...) This is an issue that I am even addressing in the South MSP, because coastal management will only regulate the area up to 12 nautical miles, also taking into account this limit of the Orla Project. The MSP, however, does not. The MSP goes from the high tide line up to 200 nautical miles. So this is a very important issue to consider. States and municipalities will not legislate from the territorial sea up to 200 nautical miles. Municipalities, for example, I believe they have the capacity to regulate their sea up to the limit of the Orla Project, which is the 10m depth, maybe even that. And states may have this capacity to manage up to 12 nautical miles. But then there is a very important issue. Neither recognizes the sea as their territory, because these are areas of the Union (...) So, I think the first thing that needs to happen is the recognition of these areas by municipalities and states".	"So, this is a coexistence plan, that is, you have economic and leisure activities that you logically have to seek to establish these coexistence plans, right? But I think this is very important, but logically, for this always, right, there must be regulation, laws, so that this can be established, right? As you put it, to guarantee legal certainty".	"So, one of the important issues, more than perhaps what is written there, would be how to establish, through these parameters, indicators. Because, in reality, what would be better are indicators rather than parameters (...) But I think this methodology could indeed be applied, as long as it is adapted to Brazil".	"So, like this, how to be inclusive and accessible, I think there isn't, there's no way to be perfectly inclusive and accessible (...) I think better than the public hearing is the formation of committees. It's, I think, more like the functioning of the hydrographic basin committees, where you have representatives from society, from users, who could be the sea users. Yes, organized civil society and governments, because I think there you will have much more possibility to negotiate. Not only to negotiate, but to converse, to reflect, to learn from each other. And so I believe that a public hearing is a moment, and that moment never expresses the whole truth. It expresses the truth of an interest. So the development of documents, infographics, non-technical language, ah, I think that's super cool. But for that, I think we have to have an instrument that I think is fundamental and little talked about, which is communication and information and education. And that falls within the national policy on environmental education".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 6	"I find it difficult to implement something along the lines of the European Union for use in South America (Mercosur framework?). This is because legally the status is very different, as is the capacity for financial support provided by the European Union to the member states of Parliament. We already have a UNESCO guidance document for MSP that is relevant to the Brazilian case and can logically be adapted to the social, economic, environmental, and cultural conditions of the Global South, especially Brazil".	"The compatibility of the MSP with the EEZC, CZM, Orla Project, and other municipal and state plans is fundamental. The current MSP is macro and does not have a smaller scale. I believe that soon the states (after the execution of the 4 MSPs - North, Northeast, Southeast, and South) could advance, improve, and refine the scale of data and management plans. We cannot forget that many states in Brazil are much larger than European countries (which have their MSPs)".	"This topic is relevant; I mean the establishment of rules (general criteria) for the coexistence of uses and activities. Zoning, I think, is difficult to carry out due to the scale of the proposed analysis. It is more likely that the current MSP will generate a macro-diagnosis that points to possible 'areas of common use and areas of private use.' A coexistence plan is necessary for individual activities currently underway. The ports themselves establish agreements with fishermen within their licensing processes for coexistence, conflict reduction, and socio-environmental gains. The MSP does not necessarily need to do this because this is already done individually in the case of specific licenses, again for a reason of scale".	"The methodology for hierarchizing is interesting; however, I find its application difficult because it is old and not updated with current models of public management and activities that use the 17 SDGs and the 2030 Agenda to establish goals and uses".	"The effectiveness of social participation is a cornerstone. The models of hearings and workshops can and should be used. However, the big problem with artisanal fishing is the widespread absence of spatialized data and information that leads to invisibility in the MSP and other public policies. The Northeast MSP plan includes social cartography. Social cartography is a branch of cartographic knowledge and has become an important participatory methodology with a social focus, due to the fact that it offers possibilities to empower, give visibility, and voice to traditional peoples and marginalized social groups. It depends a lot on what was approved in each MSP based on the launched calls for proposals and the teams' proposals. The methodology of the South and Southeast MSP should also involve social cartography. Without the use of these tools, it is likely that what happened in European countries will happen again here".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 7	"It is recommended that Brazil adopt a guidance document similar to Directive 2014/89/EU of the European Parliament for the construction of its MSP. This type of guide offers several advantages that can be fundamental for the effective development and implementation of the national MSP, among which we can highlight a) Structuring of the MSP construction process; b) Standardization of methodologies to be used; c) Transparency and Inclusion during the elaboration; d) Legal and Regulatory Basis; and e) Consideration of local realities and characteristics. In this way, the adoption of a guidance document can become an important tool for building an MSP that promotes sustainable management and the conservation of the environment and marine resources in the country".	"The spatial planning of the maritime area, especially in the coastal region where land-sea interactions are intense, is a highly complex process due to the overlap of uses and the diversity of economic, social, and environmental activities and interests. In this context, it is fundamental to consider an integrated approach among the various actors, which allows for taking into account local specificities and the complexity of the interactions between the various ecosystems, in order to involve coastal communities, allowing their knowledge and aspirations to be considered in the construction of the MSP. Another important aspect is related to building a consensus so that cooperation can be established between the various institutions (public and private) involved, so that there can be a spatial planning based on an efficient management policy with social, economic, and environmental responsibility".	"It is fundamental to establish rules for the utilization of maritime spaces in order to ensure the effective coexistence of different uses and activities. Maritime spaces are widely used for various activities, including navigation, fishing, tourism, natural resource exploration, and environmental conservation. Each of these activities can significantly impact the others, making it crucial to implement a set of rules and guidelines to balance interests and minimize conflicts. Some principles and approaches can be adopted to ensure an effective coexistence of different uses and activities in order to help in the organization and management of the use of maritime space in an integrated manner. Among them, we can mention: a) elaboration of a Marine Spatial Planning; b) environmental impact assessment of existing activities; c) elaboration of specific regulations and norms for the uses of spaces; d) participation of all interested parties (public, private, and civil society); e) adoption of monitoring and inspection tools adequate to the utilization of existing uses and activities in the maritime space".	"The Decree-Law nº 38/2015 of Portugal establishes the 'Legal Regime of the Maritime Space Planning' and, in its Article 27, addresses criteria and principles for the planning and management of the use of maritime spaces, among which we can cite: a) the coexistence of activities and environmental sustainability; and b) the integrated planning and management. Relevant criteria for Brazil, especially considering the contextual similarities, such as the vast maritime area of the country, its environmental policy focused on the sustainable use of the environment, and the beginning of the elaboration of a maritime spatial planning at a national level. Thus, the criteria of Article 27 can serve as a valuable model for the elaboration of the planning and management of the maritime space in Brazil, provided they are adapted to national specificities and needs".	"The effectiveness of social participation is fundamental to the success of MSP for several reasons: a) it allows for the inclusion of local and traditional knowledge; b) it promotes the transparency and legitimacy of the actions to be implemented; c) it allows for a better reconciliation of conflicts of uses of existing resources. In this context, effective social participation in marine spatial planning is crucial to ensure that the plans are coherent, fair, equitable, and sustainable. This participation is fundamental to structure the necessary support for the construction, implementation, and maintenance of socially and economically sustainable marine management policies".

Table 4. Summary of expert's responses (Cont.)

	Compiled from the Answer to question nº 1	Compiled from the Answer to question nº 2	Compiled from the Answer to question nº 3	Compiled from the Answer to question nº 4	Compiled from the Answer to question nº 5
Specialist nº 8	"Yes, of course. In this way, we could ensure greater cohesion among maritime spatial planning policies in the region, facilitating cross-border cooperation and promoting the sustainable development of marine resources. The harmonization of guidelines would also allow for better management of environmental impacts and the protection of marine ecosystems, ensuring that economic activities, such as fishing, tourism, and the exploitation of natural resources, are conducted in a responsible and balanced manner".	"To effectively carry out the spatial planning of the maritime area, it is essential to adopt an integrated approach that considers both the physical and institutional aspects of land-sea interactions. This forms the conceptual basis for the implementation of the MSP itself, which aims to organize human activities at sea in order to achieve ecological, economic, and social objectives in a sustainable manner. Coastal States and Municipalities play a crucial role in the elaboration of the MSP, as they possess specific knowledge about the particularities of their coastal areas and can provide relevant data on local land-sea interactions. The active participation of these federative entities ensures that the planning is more coherent with local needs and realities. To integrate the urban planning/zoning system with the marine system planning, some actions can be adopted: a) Creation of Interinstitutional Committees (Here in Bahia there is already one - and we will have the 2nd Meeting next week); b) Mapping and Sharing of Data; c) Harmonization of Policies and Regulations; d) Education and Training; e) Continuous Monitoring and Evaluation. I believe that if these practices are adopted, it is possible to create an integrated MSP that respects the complexities of coastal environments and promotes a harmonious and sustainable development of maritime and terrestrial areas".	"These questions are extremely complex, just like the marine and coastal dynamics. It would be fundamental to consider the creation of an integrated management committee, composed of representatives from all interested parties, to monitor and periodically review the implementation of these rules and zonings. This committee could act as a mediator in potential conflicts and ensure that the activities carried out respect both environmental and socioeconomic criteria. Community participation is another essential aspect. Involving local communities throughout the decision-making process, from the planning phase to execution and oversight, can provide greater acceptance and compliance with the established norms. Transparency and effective communication are key to the success of any coexistence plan".	"That's excellent news that Portugal's MSP will be one of the references for our Northeast MSP! Getting to know the functioning of the Portuguese MSP in detail will certainly bring valuable insights and learnings for the Brazilian context. You accurately highlight the potential benefits of applying a similar methodology in Brazil, considering the similarities in the challenges of managing maritime spaces faced by both countries. Brazil, with its vast coast and rich marine biodiversity, frequently faces conflicts of use that need to be resolved in a balanced way to ensure both economic development and environmental preservation. The adoption of the preference criteria established by Portugal's Decree-Law nº 38/2015 could offer a structured framework for decision-making, prioritizing social and economic advantage, as well as the coexistence of multiple uses. This would be particularly useful in areas where fishing, tourism, natural resource exploitation, and environmental conservation compete for space and resources".	"Yes, Yes, and Yes. However, given the conditions of institutional articulations involving large players engaged in the economic exploitation of the seas, such initiatives for maximum socialization of the MSP face significant challenges imposed by these groups. On the other hand, Brazil has shown strength in securing rights for less favored classes. In this sense, the rights of less affluent classes, such as fishing communities, should be included in the MSP, with the Public Prosecutor's Office acting as a guardian of these actions. In Bahia, for example, we have the Mata Atlântica Nucleus – Numa, a special task force of the Public Prosecutor's Office of Bahia, focused on the defense and protection of the Atlantic Forest. Something in this logic of NUMA needs to be conceived to be the guardian of the MSP".

coastal waters. However, it is important to highlight that the long-term success of MSP depends on the integration between terrestrial planning, especially coastal planning, and maritime planning (Schaefer and Barale 2011). The Directive 2014/89/EU (Directive 2014/89/EU 2014) determined that the Maritime spatial planning will contribute to the effective management of marine activities and the sustainable use of marine and coastal resources by creating a framework for a coherent, transparent, sustainable and informed decision-making process, and that, in order to achieve these objectives, this Directive should provide for obligations to establish a maritime planning process, leading to a maritime spatial plan or plans; this planning process should take into account land-sea interactions and promote cooperation between Member States (Directive 2014/89/EU 2014).

Regarding question number 3, here, too, a consensus was not reached among the participants. Some participants believe it is possible to pre-establish rules for the coexistence of uses and activities, while considering regional particularities, seasonality, national priorities, and social returns. In the same vein, they understand that it is fundamental to establish rules for the use of maritime spaces to ensure the effective coexistence of different uses and activities. This makes the implementation of a set of rules and guidelines crucial for balancing interests and minimizing conflicts. The establishment of rules and coexistence plans would guarantee legal certainty.

In the case of multi-use/coexistence of activities in the same maritime zone, multi-use is a management option in MSP and as such, there is no need for rigid regulations, but rather for flexible and transparent management arrangements within the framework of national MSP laws and supranational initiatives and strategies (Kyvelou and Ierapetritis 2019). The multi-utilization of maritime space is often presented as a "technological solution" to the challenge of resource allocation. In this context, the issue of allocation is treated as a "design problem," which can be, at least in part, solved through a planning process, aiming to organize an efficient and integrated use of space (Steins *et al*., 2021).

Analyzing the calls for proposals for the implementation of MSP in Brazil, among the proposed activities related to this issue, regarding the elaboration of a proposal for a Marine Spatial Management Plan (PGEM), all four documents stipulate that priority areas for certain sectors, exclusive use or common use, and their respective limits and boundaries that avoid unwanted conflicts and increase opportunities for sustainable investment, must be described.

Regarding question number 4, the majority of participants offered a positive evaluation of adopting the criteria from Portuguese legislation for determining the prevailing use or activity in cases of conflicts. However, they presented some reservations. The main one was that a mixture of environmental, social, and economic parameters should be adopted, instead of a necessary predominance of the economic criterion. They also believe this should be discussed, and that other alternatives should be considered.

To mitigate the conflicts resulting from multiple overlapping uses and to ensure the sustainable development of all sectors, it was necessary to carry out conflict analyses and assessments of potential future uses. In this process, use compatibility matrices were developed, with conflicts being assessed according to national legislation. Based on Portuguese legislation and the concept of public interest, hierarchical criteria were defined for the organization of overlapping activities (Calado and Bentz 2013). Applying the methodology of Portuguese legislation for resolving conflicts of uses or activities in the maritime space within an MSP model in Brazil requires careful adaptation to the Brazilian legal, environmental, and institutional context, given the absence of Brazilian regulation. In Portugal, the resolution of maritime space use conflicts is facilitated by objective legislation, in force since 2015.

Regarding the last question, number 5, the participants responses regarding the effectiveness of representation and transparency in social participation throughout the MSP process were almost unanimous. In the Portuguese case, the participation of stakeholders was a vital element in the MSP development process. Thus, efforts were undertaken to promote the acceptance, participation, and support of stakeholders, as well as to ensure the collection of information and the sharing of knowledge among all sectors involved. To facilitate the acquisition of data on activities under Portuguese maritime jurisdiction, a website was developed as a communication platform, with the purpose of encouraging stakeholder participation and strengthening the interaction between the members of the multidisciplinary team, the ministries involved, national institutions, and the general public (Calado and Bentz 2013). The involvement of stakeholders goes beyond maritime sectors and representatives of specific activities, also encompassing the general public, Non-Governmental Organizations (NGOs), and any individual with an interest or concern in the development of a specific coastal region. These parties are essential sources of knowledge, whose contribution

can considerably enrich the quality of the MSP (Jajac *et al*., 2019). To achieve broad acceptance, ownership, and support for implementation, it is equally important to involve all relevant stakeholders, including coastal regions, at the earliest possible stage of the planning process (Schaefer and Barale 2011).

Presentation of the strategic initiatives proposal

As identified in the notices for the implementation of the MSP, in Brazil, the execution of the MSP is coordinated by CIRM, through the MSP Executive Committee (EC-MSP), with its composition defined in Ordinance Nº 235/MB/2020 (MB 2020). In addition, Decree Nº 12.491/2025 (Brasil 2025) states that the MSP will be submitted to CIRM for review and consolidated by an act of the federal Executive Branch, and that the governance of the MSP will be exercised within the scope of CIRM, with joint coordination by the Brazilian Navy and the Ministry of Environment and Climate Change. These bodies will carry out the necessary articulations with other federal Executive Branch bodies and federal entities, with a view to the coordinated and participatory development of MSP actions. Therefore, by virtue of this legal competence, the implementation of the proposals listed below would be your responsibility.

In light of the analysis presented earlier, below is a proposal for strategic initiatives aimed at managing Brazil's coastal and adjacent ocean environments within a MSP framework, to be incorporated into national legislation:

a) Adoption of a guideline, such as an advisory "Directive", similar to the one adopted by European Union countries or the IOC-UNESCO guidance document, establishing a "Policy" for MSP. This would provide Brazil with a standardized methodology for developing an effective implementation process for its MSP. However, it is also necessary to adapt this approach to the Brazilian reality, particularly considering social, economic, environmental, and cultural conditions.

Analyzing it from a more practical and realistic standpoint, and in light of the publication of the calls for proposals for the MSP in Brazil, which addresses Methodological Aspects, it is mentioned that the IOC-UNESCO guide constitutes the major conceptual and methodological reference for the MSP Project in the South, North, and Southeast regions of Brazil. Thus, it can be seen that, with the conceptual and methodological reference in the calls for proposals for the implementation of the MSP in Brazil, their implementation becomes viable.

Adopting a standardized policy for MSP would encourage cooperation among the coastal countries of South America, creating a common approach to the management of marine and coastal areas, considering that many of these ecosystems are transboundary. This would facilitate joint efforts to solve regional problems, such as coastal erosion, the management of fishery resources, and the impact of climate change. Furthermore, with a standardized methodology, the coastal countries of South America could have a clearer and longer-term view of the impacts of human activities and environmental changes on coastal and marine areas, allowing planning strategies to be better grounded and adapted to local and regional needs.

Another point to this question included the need to adopt financial tools to support the implementation and, especially, the maintenance of the MSP process. Possible approaches include allocating budgetary resources within the multi-year plan; Creating a national fund, financed by sources such as: a percentage of revenue from companies engaged in marine activities or public fund models, similar to the Special Environmental Control Fund (FECAM) established under Rio de Janeiro state legislation. However, as pointed out in the calls for proposals for the implementation of the MSP in Brazil, they already include financial support from the BNDES and the Brazilian Biodiversity Fund (Funbio), making its implementation viable. Nevertheless, the adoption of financial tools, such as tax incentives, government subsidies, or blue funds, could attract private investment and encourage the formation of public-private partnerships (PPPs) for the development of sustainable infrastructure projects, in addition to also enabling the financing of technological innovations.

b) Integration of MSP planning and implementation with coastal management public policies, such as Coastal Ecological-Economic Zoning (ZEEC), State Coastal Management Plans, Territorial Planning Plans for Coastal Municipalities, the Orla Project, among others. This approach should consider marine areas and their impacts on CZ, recognizing the need for land-sea interaction.

The interaction between the planning and implementation of the MSP and the public policies for coastal management in Brazil is a central theme for the sustainable management of coastal and marine zones. The MSP seeks to integrate the ecological, economic, and social dimensions of the use and conservation of marine space, focusing on the rational use of resources and the protection of ecosystems. Meanwhile, public policies for coastal management have the function of coordinating and guiding the land use and natural resources of coastal regions and their adjacent territories. This interaction is fundamental to ensuring sustainable development, respecting the complexity of marine

and coastal ecosystems. Therefore, the MSP requires effective coordination among the federal, state, and municipal levels, especially in relation to the Territorial Zoning Plans of Coastal Municipalities and the State Coastal Management Plans. This coordination is essential to implement coastal management policies effectively and avoid overlapping or conflicts of use. The sustainability of coastal and marine zones depends on the ability to articulate these planning instruments, respecting both the social and economic needs of local populations and the protection of natural ecosystems. In order to facilitate its implementation, the calls for proposals for the implementation of the MSP in Brazil, activities developed in the marine environment and their impact on coastal areas are already included in several work planning activities and the correlation of territorial management instruments with the MSP proposal.

c) Pre-establishment of zoning rules for the use of maritime spaces to ensure the effective coexistence of different uses and activities (multi-use). Implementing a clear set of rules and guidelines is crucial to balancing interests, minimizing conflicts, and ensuring legal security for all stakeholders. The "final decision" on these predefined rules should be made by a manager or a group of stakeholders, along with the prior establishment of a committee representing all involved parties. This committee would be responsible for monitoring and periodically reviewing these zoning regulations, what could be the responsibility of CIRM, also becoming a viable action for its implementation in the Brazilian MSP.

The pre-establishment of clear and transparent rules for the use of marine space provides legal certainty for all stakeholders involved. Investors, businesses, and local communities that depend on the sea for their activities can operate with greater confidence when they know exactly which norms and regulations must be followed. Furthermore, zoning helps resolve legal disputes and avoid the creation of uncertainty zones, in which users of marine space may question their usage rights. Thus, the pre-establishment of marine zoning is a complex process that requires integrated, multidimensional, and flexible planning, based on a solid scientific foundation and a multi-sectoral governance process, ensuring the articulation between different levels of government and the various interests involved.

Although the calls for proposals for the implementation of the MSP in Brazil mention, in the chapter referring to the development of a proposal for a Marine Spatial Management Plan (PGEM), that the main management measures for marine space and their impacts on the coastal environment should be listed, among other things, along with the identification of interested parties and institutions responsible for the executive actions to meet the guidelines and achieve the objectives, there is no definition of a committee to monitor and periodically review the rules of a pre-established marine zoning, which could also be the responsibility of CIRM. However, it is known that the MSP is dynamic, cyclical, and subject to a permanent process of monitoring, evaluation, and performance.

d) Identification of parameters and/or indicators to be used in determining the prevailing use or activity in case of conflicts between uses or activities.

This approach should also consider coastal management and, preferably, incorporate a balanced mix of environmental, social, and economic parameters and/or indicators, rather than prioritizing a single aspect. This integrated and strategic perspective would promote a more comprehensive approach, ensuring that ecological, social, and economic objectives are effectively achieved. Although provided in the calls for proposals for the implementation of the MSP in Brazil, the Marine Spatial Management Plan (PGEM) must contain the rules for each management area and those pertinent to resolving conflicts of use, in addition to restrictions and prohibitions, compatibilities and incompatibilities. However, it does not present any methodology for how this will be carried out.

Establishing parameters and/or indicators to be adopted in determining the prevailing use or activity in cases of conflicting uses or activities, in addition to providing greater legal certainty for all stakeholders involved, is fundamental for environmental sustainability, economic efficiency, and social harmony. The parameters and/or indicators help identify more sensitive areas, such as marine reproduction zones or critical habitats, and ensure that human activities do not compromise biodiversity and marine ecosystems. This makes it possible to define specific zones for different activities, avoiding overload in areas that do not have the capacity to support certain activities.

These parameters and/or indicators can be adjusted according to the evolution of scientific knowledge and changes in environmental and socioeconomic conditions, allowing for a more dynamic and adaptive approach to the MSP. With a focus on continuous monitoring, the parameters and/or indicators enable the tracking of the effectiveness of marine spatial management policies, ensuring that adjustments can be made over time to improve outcomes.

e) Establishment of a methodology to strengthen cooperation

and social participation, ensuring the broadest possible involvement of society, marine users, organized civil society, and other stakeholders.

This methodology should clearly define when and how stakeholders should be engaged at the appropriate stages of the MSP process. Additionally, the adoption of social participation tools, such as debate workshops and the formation of committees, is essential to promote extensive engagement in the process. It is crucial that stakeholders, authorities, and the public are properly consulted at all key stages of the MSP development and implementation.

As provided for in the calls for proposals for the implementation of the MSP in Brazil, among the activities indicated, we have the identification of interested parties, in addition to planning, organization, carrying out training and updating of public managers, civil society agents, local communities, among other actors.

The active participation of society in decisions regarding the use of marine space increases the legitimacy of the adopted policies. When communities, fishermen, entrepreneurs, and civil society organizations feel part of the process, there is greater acceptance of the measures and the implementation of the policies. Social participation allows for the inclusion of social groups often neglected, such as traditional fishing communities, indigenous peoples, vulnerable coastal communities, or groups with less access to political power. This ensures that MSP decisions benefit a wide range of people and respect territorial rights.

A point of concern regarding the lack of representativeness is that social participation is not always representative of the entire diversity of social groups that use marine space. This can result in decisions that favor certain interests over others, such as the interests of large corporations in relation to those of local communities. In some cases, government authorities may be unwilling to adopt an effective social participation model, either due to a lack of interest in listening to communities or because they prefer a more centralized and rapid decision-making process.

Thus, for social participation to be truly effective, it is necessary to ensure that all involved groups have equitable opportunities to contribute to the process, with access to clear information, and that there is a continuous effort to mediate and reconcile diverse interests in a fair and balanced manner.

Table 5 presents a consolidation of the information presented.

The table 6 summarizes the information presented, organized into two categories: Challenges and Proposals for the Implementation of the PEM in Brazil:

5. CONCLUSIONS

Brazil made a voluntary commitment during the United Nations Ocean Conference in 2017 to implement MSP nationwide by 2030. As part of this effort, the MSP Pilot Project has already begun in the marine region of Southern Brazil, funded by BNDES. Additionally, public selection calls have been completed for contracting technical studies aimed at characterizing and mapping current and potential uses of the marine environment for the development of the MSP project. These include calls for the MSP-Southeast, MSP-Northeast (excluding Maranhão), and MSP-North, which covers the marine regions of Maranhão, Pará, and Amapá. However, it is evident that Brazil still has a long way to go in fully implementing MSP.

For the proposal of strategic initiatives for the Brazilian management of adjacent coastal and oceanic environments within a MSP framework, to be internalized into national legislation in Brazil, it is important to follow a structured process that encompasses all the necessary elements for the effective operationalization of these proposals. This includes ensuring that these strategies are aligned with national and international policies and regulations, engaging stakeholders, establishing institutional partnerships with research bodies and universities, and especially defining and monitoring specific actions for each strategy. This should involve setting an implementation schedule divided into phases, establishing performance, evaluation, and monitoring indicators to measure the effectiveness of the strategies and the achievement of the proposed objectives, and making adjustments to the strategies and actions to correct deviations and improve effectiveness.

To overcome these challenges, it is essential to adopt an integrated, collaborative, and adaptive approach. Several strategic initiatives can help to address these obstacles, including increasing investments in research and monitoring of marine ecosystems through scientific studies and continuous environmental assessments. This also includes spatial planning to allocate specific areas for different activities, reconciling various interests and creating an integrated governance structure, with a central coordinating body responsible for intersectoral cooperation and the joint implementation of public policies, which, in the Brazilian case, the execution of the MSP is coordinated by CIRM.

Table 5. summary of the proposal for strategic initiatives

Component of the Proposal	Description	Rationale and Adaptation
Adoption of a Guideline (e.g., Consultative "Directive") **Adoption of Financial Tools**	Adoption of a guidance document, similar to those used by the European Union or IOC-UNESCO, that establishes a policy for MSP. Implementation of mechanisms to finance and maintain the MSP process.	This would provide Brazil with a **standardized methodology** for the effective implementation of MSP. However, it is essential that this approach be adapted to the Brazilian reality, considering the specific **social, economic, environmental, and cultural conditions** of the country. The implementation and maintenance of MSP require resources. The proposals include: allocating budgetary resources within the multi-year plan; creating a national fund (financed by revenue from marine activities or public fund models like the FECAM/RJ). The viability is reinforced by the existing financial support already provided in the calls for proposals from BNDES and Funbio. Additionally, the adoption of tax incentives, government subsidies, and "blue funds" can attract private investment, foster public-private partnerships (PPPs), and finance technological innovations.
Integration with Coastal Management Policies	Articulation of MSP with public policies such as **Coastal Ecological-Economic Zoning (ZEEC)**, State Coastal Management Plans, and Municipal Master Plans, considering the land-sea interaction.	Integration is essential for the **sustainable management** of coastal and marine zones, as it aligns the use of marine space with land use. It requires **effective coordination** between the federal, state, and municipal levels to avoid conflicts of use. The viability is facilitated by the fact that the Brazilian calls for proposals for MSP already account for this correlation between territorial management and the MSP proposal.
Pre-establishment of Zoning Rules	Creation of a clear set of rules and guidelines to ensure the effective coexistence of different uses and activities (multi-use). The final decision would be made by a manager or a stakeholder group, with a dedicated **monitoring committee** that could be under CIRM's responsibility.	This provides **legal certainty** for all stakeholders, minimizes conflicts, and facilitates dispute resolution. Although Brazilian calls for proposals mention listing management measures, there is no explicit definition of a committee for monitoring and review, which is crucial for a dynamic and cyclical process like MSP.
Identification of Parameters for Conflict Resolution	Establishment of parameters and/or indicators to determine the prevailing use or activity in case of conflicts, using a balance of environmental, social, and economic aspects.	The adoption of a clear and integrated methodology provides **legal certainty**, promotes sustainability and efficiency, and helps protect sensitive areas. While the Brazilian calls for proposals require rules for conflict resolution, they do not present the **methodology** for doing so, making this a strategic initiative. These parameters can be adjusted for a more **dynamic and adaptive** planning approach.
Strengthening Social Participation	Creation of a methodology to strengthen cooperation and social participation, defining **when and how stakeholders should be engaged** through tools like **workshops and committees**.	Social participation increases the **legitimacy** and acceptance of policies, ensuring the inclusion of diverse and vulnerable social groups. Although Brazilian calls for proposals mention stakeholder identification, a formal methodology for participation is not yet defined, which could lead to a bias in representation. A fair and balanced approach is necessary to mediate and reconcile different interests.

Table 6. Challenges and Proposals for the Implementation of MSP in Brazil.

Category	Description
Current Context and Challenges	Brazil made a voluntary commitment to implement MSP by 2030, and pilot projects are already underway. However, the country still lacks a **specific legal framework** for MSP, which creates legal uncertainty and may lead to conflicts. The existing legislation is **fragmented and sectoral**, requiring effective coordination among federal, state, and municipal levels.
Proposed Strategic Initiatives	**1. Alignment with Policies:** Strategies must be aligned with national and international policies and regulations. **2. Partnerships and Engagement:** It is essential to involve stakeholders, establish partnerships with research institutions and universities, and ensure social participation. **3. Research and Monitoring:** Increase investments in research and monitoring of marine ecosystems to support decision-making. **4. Integrated Governance:** Create an integrated governance structure, with a central body (CIRM, in the Brazilian case) to coordinate the implementation of intersectoral policies. **5. Implementation Measures:** Define an implementation schedule, establish performance, evaluation, and monitoring indicators, and make continuous adjustments. **6. Integration with International Experiences:** Adopt models and best practices from other countries, such as Europe, and adapt them to the Brazilian reality. The integration of multi-use areas, the use of advanced technologies, stakeholder engagement, and the promotion of the Blue Economy are examples.
Addressed vs. Unaddressed Points	**Addressed:** The adoption of the UNESCO guide, financial support from BNDES and Funbio, the inclusion of the impact on coastal areas, and the identification and training of stakeholders. **Unaddressed:** The definition of a **monitoring and review** committee for zoning rules and the specification of a **methodology for resolving conflicts** of use.

Marine zone management is complex, involving multiple levels of authorities, diverse economic actors, and various stakeholders. An MSP should aim to identify and encourage multiple uses in accordance with national legislation and public policies. In the current context, the absence of a legal framework that regulates the requirements for the development and implementation of an MSP in Brazil creates legal uncertainty for all involved parties. The MSP Pilot Project in the marine region of Southern Brazil is being developed without a specific national legal framework governing MSP planning and implementation. This lack of regulation could, in the future, lead to legal inconsistencies and conflicts between regulations, resulting in unnecessary disputes and increased legal uncertainty for activities carried out in the marine environment, as well as for their respective investors.

For MSP to be effective, it is essential to achieve harmonious integration of existing policies and legislation, ensuring that all levels of government operate in a coordinated manner. Brazil has an extensive legislative framework addressing coastal and marine management. However, many of these regulations were developed in a fragmented and sectoral manner, creating challenges for their integrated and coordinated application. Effective coordination among federal, state, and municipal governments will be crucial to overcoming these challenges and ensuring the successful implementation of MSP.

As previously mentioned, some of the proposed legal strategies are already clearly included in the notices for implementing the MSP in Brazil, such as, for example, the adoption of the UNESCO guide as a conceptual and methodological reference, the inclusion of financial support from BNDES and Funbio, the impact on coastal areas of activities developed in marine areas and the correlation of territorial management instruments with the MSP proposal, in addition to the identification of interested parties, planning, organization, training and updating of public managers, civil society agents, local communities, among other actors. It was found that other points were not included in these documents, such as, for example, the definition of a monitoring committee and periodic review of the rules of a pre-established marine zoning and the rules and methodologies pertinent to the resolution of conflicts of use.

When developing a strategic initiative proposal for coastal and adjacent ocean environments within an MSP, it is crucial to recognize the limitations and uncertainties associated with various implicit assumptions underlying this proposal. These factors serve as constraints to the work presented. Such assumptions, like environmental, social, and economic characteristics of a given marine and/or coastal region, or the effectiveness of pre-established policies, can vary significantly depending on local contexts and the dynamic conditions of the marine and coastal environment. Therefore, the implementation of these strategic initiatives within MSP must carefully consider regional specificities, including environmental, socioeconomic, and cultural factors, to ensure their effectiveness and adaptability.

In conclusion, the practical feasibility and applicability of adopting these strategic initiatives can only be assessed after the implementation of MSP in Brazil. However, only future studies, conducted during the monitoring and performance evaluation phases, along with adaptive management processes, will determine whether the objectives of these proposals are being met and allow for necessary adjustments.

Additionally, international experiences, models, and best practices from other countries, especially from Europe, can provide valuable insights and contributions to Brazil. These references offer a solid foundation for developing an effective and sustainable MSP.

The integration of multiple-use areas, the application of advanced technologies, stakeholder engagement, the creation of marine protected areas, and the promotion of the Blue Economy are some of the valuable lessons that can be applied in practice in Brazil, with the necessary adaptations to the local context. Brazil can benefit from these experiences in the development of a legal framework for MSP, tailoring it to its specific needs. By incorporating these international practices, the implementation of MSP in Brazil can be accelerated, making it a key tool for the sustainable management of the country's vast marine resources.

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SUPPORTING INFORMATION - QUESTIONS USED IN SEMI-STRUCTURED RESEARCH

1) In the case of South American countries, would it be interesting to have a "macro" document, a "guidance guide", along the lines of Directive 2014/89/EU of the European Parliament, with the adoption of financial tools to support its implementation and the establishment of a framework and a set of common requirements for the PEM, so that these countries can, from there, legally internationalize this "Directive", and subsequently prepare and implement the PEM individually?

2) How can maritime spatial planning be carried out, taking into account land-sea interactions, given that it is an area prone to planning conflicts due to the physical and institutional complexity inherent to coastal environments? How would coastal states and municipalities influence the development of the PEM? How can the urban planning/ zoning system be integrated with the planning of the marine system?

3) Should rules (general criteria) be pre-established for the coexistence of uses and activities? Would it be necessary to define a "zoning" in advance, defining, for example, "areas of common use" and "areas of private use", the latter being granted by a title of use, for example, a concession (prolonged use of an area or volume, carried out uninterruptedly and lasting 12 months or more) or a license (temporary, intermittent or seasonal use of a reserved area or volume)? In the case of multi-use use/coexistence of activities in the same maritime zone, would it be necessary to establish a "coexistence plan", mutually agreed between the user parties, as a way of ensuring legal certainty?

4) Decree-Law No. 38/2015 of Portugal determines in its article 27 the criteria in cases of conflicts of uses or activities, ongoing or to be developed, in the national maritime space, in determining the prevailing use or activity, the following preference criteria are followed in determining the prevailing use or activity, provided that "the identified singular biodiversity values, the good environmental status of the marine environment and the good status of coastal and transitional waters are ensured:

a) Greater social and economic advantage for the country;

b) Maximum coexistence of uses or activities.

The preference criterion referred to in paragraph a) of the previous number is assessed according to the following parameters:

a) Creation of number of jobs;

b) Qualification of human resources;

c) Volume of investment;

d) Economic viability of the project;

e) Forecast of results;

f) Contribution to sustainable development;

g) Creation of value;

h) Expected synergies in related activities;

i) Social responsibility of those interested in the development of the use or activity.

Could this methodology be applied in Brazil? Why?

5) When assessing the implementation of the PEM in other countries, one situation that has been highlighted is the effectiveness of social participation. It was found that in some European countries, PEM responsibilities have been delegated to authorities with an economic focus and that many PEM processes are initiated with specific economic objectives in mind, that is, some activities (e.g., maritime transport, ports, offshore extraction, renewable energy, etc.) have greater economic importance compared to other activities (e.g., small-scale fishing). So, how can we be inclusive and accessible, and ensure effective representation and transparency of social participation throughout the process, considering sociocultural and geographic diversity, as well as guaranteeing the rights of traditional peoples and communities and the maintenance of their rights and traditions? Would the use of a model similar to the "public hearings" provided for in some EIA/ RIMA cases in Brazilian legislation be a methodology? Would the development of comprehensive non-technical documents and infographics on the PEM and plans to make the content more understandable for different audiences be a way forward?