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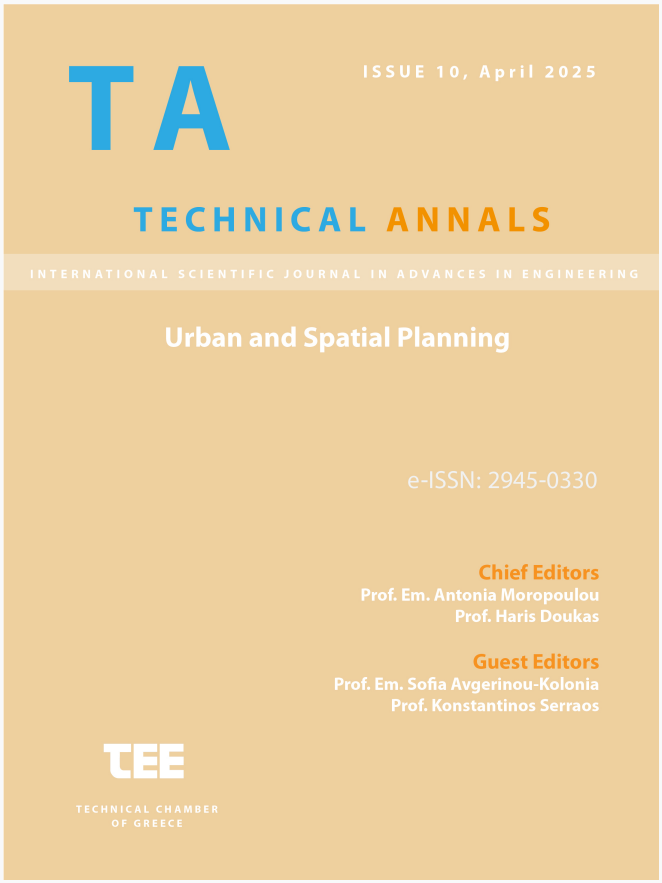

Maritime Spatial Planning in Greece: Assessing the balance between energy infrastructure and marine protection

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Maritime Spatial Planning in Greece: Assessing the balance between energy infrastructure and marine protection

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Abstract. This paper examines the challenges and contradictions of Maritime Spatial Planning (MSP) in Greece, focusing on the tension between energy infrastructure development and marine conservation. Through an analysis of legislative frameworks, energy projects, and marine protected areas (MPAs), it highlights how Greece's pursuit of blue growth and energy hub status has led to the privatization and fragmentation of marine spaces. The study critiques the prioritization of hydrocarbon extraction, LNG infrastructure, and offshore renewable energy investments over environmental protection, emphasizing the risks posed to marine ecosystems and local communities. It further explores governance deficiencies within Greece's MSP framework, particularly delays in adopting regulatory tools, illustrating how the existing regulatory landscape facilitates economic exploitation at the expense of conservation, resulting in fragmented and politically driven spatial planning. Drawing on recent critical literature, the paper argues for a shift toward a truly ecosystem-based approach that prioritizes environmental sustainability and community resilience. It concludes by advocating for more adaptive, dynamic conservation strategies, such as flexible MPAs, that respond to ecological needs rather than rigid economic planning.

Keywords: Greece, Maritime Spatial Planning (MSP), ocean grabbing, energy infrastructure, marine conservation, hydrocarbon extraction, governance

1 Introduction

As European countries increasingly rely on natural gas as a transitional energy source to meet climate targets, the adoption of "blue growth" policies by international forums and organizations has intensified the exploitation and privatization of coastal and marine spaces. This paper examines the concept of the "Blue Fix" as described by Brent et al. (2020), which argues that the discourse surrounding blue growth facilitates new opportunities for capital accumulation. Through an in-depth document analysis, this study explores the legal framework governing maritime space, with a particular focus on energy infrastructure, including hydrocarbon extraction, floating LNG installations, and renewable offshore energy projects.

The transnational and multi-scalar nature of hydrocarbon extraction and blue growth policies has contributed to the increasing enclosure of marine and coastal areas, exerting considerable pressure on ecosystems. Numerous scholars in human geography, as well as international organizations, have documented the environmental and socio-political consequences of such activities, often referring to them as instances of "ocean grabbing" (UN, 2020; Agardy, 2020; Barbesgaard, 2018; Bennett et al., 2015; Pedersen et al., 2014; De Schutter, 2012) and "ocean privatization" (Schlüter et al., 2020; Ertör & Hadjimichael, 2020).

This article critically examines the environmental and governance challenges associated with Maritime Spatial Planning (MSP) in Greece, particularly in relation to:

1. The legal framework enabling hydrocarbon extraction projects, which have already been ratified by the Greek state
2. The development of Floating Storage and Regasification Units (FSRUs), with one already operational and four others in various stages of permitting and development
3. The development of offshore wind farms and floating photovoltaic installations

In light of these developments, the article addresses the following research questions:

1. To what extent does Greece's maritime spatial planning framework accommodate or challenge the dominance of energy infrastructure over marine conservation?
2. How do existing legal and governance frameworks enable or constrain the spatial overlap between extractive concessions and Marine Protected Areas?
3. What are the implications of this overlap for ecological integrity and spatial justice in coastal and marine areas?

Three key themes emerge from this analysis:

First, the Greek state actively promotes blue growth by emphasizing the vast, untapped energy potential of the marine space. This approach has led to the delegation of marine space management to private entities through state-owned companies such as the Hellenic Hydrocarbons and Energy Resources Management Company (HEREMA)[1].

Second, the Greek state employs legal frameworks designed to facilitate capital circulation and resource control, ensuring that powerful economic actors maintain their influence over marine space governance.

Lastly, privatization processes span multiple domains. For example, the establishment of private rights over hydrocarbon exploitation is not merely a spatial issue but also a matter of governance. The extractive industry not only acquires the right to extract resources but also assumes authority over determining the suitability of various

[1]Hellenic Hydrocarbon Resources Management S.A. (the precursor of HEREMA) was established by Law 4001/2011 as the competent authority responsible for managing and overseeing the licensing process for hydrocarbon prospecting, exploration, and production rights on behalf of the Greek state. Its creation aimed to facilitate a more favorable investment environment for large-scale offshore hydrocarbon energy projects.

energy or other installations within specific marine areas. Consequently, extractive corporations exercise significant control over marine spaces, shaping their governance according to corporate interests rather than environmental sustainability or public benefit.

This study adopts a qualitative research design grounded in critical policy analysis. Primary sources include Greek legislation on environment and energy, spatial planning documents, and EU-level strategies such as the EU Biodiversity Strategy for 2030 and the Ecosystem-based Approach in Maritime Spatial Planning. The paper also draws on scholarly literature on blue growth, ocean governance, and MSP, drawing from Greek, Mediterranean, and broader international contexts. To support the analysis, visual data are included: a geospatial map showing the overlap between hydrocarbon blocks and designated MPAs, and a table summarizing these overlaps. A case study of the Ionian Sea and the marine corridor stretching from western Peloponnese to south Crete illustrates the spatial overlap between energy development zones and biodiversity protection areas (e.g., Natura 2000 sites and the proposed Ionian Marine Park). The analytical framework emphasizes regulatory gaps, contradictions between energy and environmental policy, and spatial justice concerns.

By critically assessing the intersection of blue growth policies, energy infrastructure expansion, and maritime spatial governance, this study aims to highlight the tensions between economic development and marine conservation in Greece's MSP policies.

Chapter 2 provides an overview of the legislative and policy framework governing MSP in Greece, highlighting the challenges of reconciling energy development with environmental protection. It explores the evolution of maritime spatial policies, and examines the role of EU directives and international agreements in shaping Greece's approach to MSP.

Chapter 3 delves into the impacts of MSP policies on Marine Protected Areas (MPAs). It examines governance challenges, including delays in management plan approvals and the subordination of conservation priorities to economic zoning. Through pilot case studies from the Greek Seas, the chapter illustrates how regulatory loopholes and political pressures undermine the integrity of MPAs.

Chapter 4 critically assesses the broader implications of Greece's MSP strategy, highlighting its alignment with the expansion of offshore energy infrastructure, including hydrocarbon exploration, LNG terminals, and offshore renewable energy investments. It discusses how Greece's spatial planning has been shaped by industrial and energy-sector imperatives, resulting in fragmented governance and the marginalization of conservation efforts. The discussion extends to alternative MSP models, such as ecosystem-based management, that could provide a more adaptive and sustainable approach to marine governance.

Chapter 5 synthesizes the study's findings, emphasizing the need for a shift toward an ecosystem-based approach to MSP. It argues that without significant policy reforms and stricter environmental safeguards, Greece's marine and coastal environments will continue to face increasing degradation. The chapter calls for a re-evaluation of hydrocarbon licensing, and advocates for a more holistic approach that fosters sustainable marine governance, ensuring that marine protection is not an afterthought but a fundamental pillar of a viable marine environment, prioritizing local community needs over energy infrastructure expansion.

2 Different Approaches and Challenges in Maritime Spatial Planning

In recent years, there has been a growing global interest in the development of maritime spatial plans by coastal nations. A recent review of the international literature (Frazão Santos et al., 2018) indicates that the vast majority of coastal states are actively engaging in MSP initiatives, drafting maritime spatial plans for their marine and coastal zones. Today, MSP has become an increasingly significant field, both scientifically and politically, on a global scale. As of 2021, over forty-five countries worldwide are either implementing or approving marine spatial plans, with dozens more laying the groundwork[2]. According to UNESCO-IOC, 126 countries and territories are engaged in MSP initiatives, ranging from early stages (such as establishing pilot projects and MSP working groups) to the revision and adaptation of existing plans[3].

Given that MSP is a relatively new and inherently broad field, a significant concern that has emerged is its predominant focus on the economic exploitation of marine resources. This approach often prioritizes the use of marine spaces for industrial activities such as fisheries, energy extraction, and large-scale tourism infrastructure, rather than adopting a holistic perspective that balances economic, social, and environmental dimensions.

Relevant literature has raised concerns regarding the protection of marine ecosystems and the safeguarding of traditional land and sea uses (Portman et al., 2013) in light of the increasing expansion of large-scale, high-impact industries in marine spaces. Within this context, there is a growing risk that MSP primarily serves as a tool to mitigate conflicts between large industrial users rather than as a mechanism that benefits the diverse groups who share the commons of the seas (Agardy, 2020).

In recent years, the promotion of "blue growth" has gained significant interest, contributing to the further exploitation of coastal and marine spaces alongside other energy infrastructure projects, such as hydrocarbon extraction and floating LNG platforms. Over a decade since the European Union formalized blue growth as a policy framework (European Commission, 2012), it has become nearly impossible to engage with marine governance or development without encountering this concept. However, the precise nature of the blue economy's promise for sustainable ocean development remains persistently unresolved, with various stakeholders advancing divergent, and at times conflicting, visions of what sustainable ocean development should look like, how it should be achieved, and whom it should serve.

The critical literature surrounding blue growth (Barbesgaard, 2018; Ertör & Hadjimichael, 2020; Mallin & Barbesgaard, 2020; Brent et al., 2020) frames it as an economic strategy aimed at securing growth in marine spaces, where emerging industries seek opportunities for resource exploitation. Within the EU, blue growth is officially described as "the long-term strategy to support sustainable growth in the marine and maritime sectors as a whole," portraying the seas as "a driver for the European

[2]https://maritime-spatial-planning.ec.europa.eu/practices/mspglobal-international-guide-marinemaritime-spatial-planning-0
[3]https://www.mspglobal2030.org/msp-roadmap/msp-around-the-world/

economy with great potential for innovation and growth" (European Commission, 2019). The five key sectors prioritized under this strategy include marine aquaculture, coastal and maritime tourism, marine biotechnology, ocean energy, and seabed mining.

According to Bennett et al. (2019), the intensive global focus on developing the "blue economy" frequently overlooks principles of social equity and environmental sustainability, posing risks to both marine ecosystems and human well-being. Therefore, bold policies and institutional actions are required, as the unregulated expansion of new economic activities at sea coupled with the further intensification of existing ones, threatens to exacerbate pressures on already vulnerable marine ecosystems.

The impacts of seabed extraction on marine ecosystems can be devastating, including the loss of unique species and the destruction of sensitive deep-sea habitats. According to Vanreusel et al., (2016) and Danovaro et al., (2017), other significant impacts include the generation of massive sediment plumes that threaten marine life, noise pollution, vibrations, and light pollution from extraction machinery and seismic surveys, which affect sensitive ecosystems and marine mammals, as well as the disruption of submarine carbon pipelines. In response to these risks, the aforementioned studies propose stringent precautionary measures to mitigate these negative impacts. These include a strict zoning of protected areas based on the current biodiversity of these habitats. This must occur before extraction begins, allowing scientists to proactively identify at-risk species rather than retroactively documenting extinctions. Additionally, they advocate a moratorium on new exploration licenses for hydrocarbons and seabed minerals in the deep sea until a network of protected habitat zones is established. Moreover, careful monitoring of the intensity and scale of disturbances caused by seabed extraction is necessary, with immediate cessation of activities if any failures are detected.

Uncontrolled economic development in marine spaces can result in economic inequality, benefiting only large industrial investors while causing devastating social and cultural impacts. This may expose vulnerable social groups to pollution and displace local populations (Bennett et al., 2019). Social movements and environmental organizations argue that “ocean grabbing” (analogous to “land grabbing”) occurs as marine space is enclosed and privatized for the benefit of large industrial sectors (Bennett et al., 2015), such as extraction, energy installations, transportation, and aquaculture. Bennett et al. (2021) underline how increasing competition over marine space has led to the exclusion of small-scale fishers (SSF), Indigenous communities, and other marginalized users. In the U.S., for instance, marine renewable energy development has triggered space-use conflicts between SSF and government agencies, with fishers holding little power in decision-making. In Scotland, Canada, New Zealand, and Australia, blue growth projects, such as offshore wind farms, have jeopardized marine tenure rights of Indigenous communities (Kerr et al., 2015). Global discussions highlight the need for achieving social equity and “blue justice” in contrast to the problematic policy framework of the “blue economy” that dominates current marine policies and governance (Schutter et al., 2021).

At a broader policy level, the risks are compounded when MSP fails to adequately anticipate the spatial demands of future sectors or assess trade-offs between uses. Galparsoro et al. (2025), assessing MSP in Spain and France, found that current national

plans often derive from EU requirements but lack foresight in anticipating spatial conflicts. Their evaluation, conducted through the Ecosystem-Based Marine Spatial Planning (EB-MSP) assessment tool, identified major gaps in cross-sector trade-off analysis, such as energy expansion versus fishing ground preservation. Failure to consider these factors, they warn, could result in ecological degradation and social unrest.

In this context, the role of MSP as a policy tool for regulating and organizing marine and coastal spaces is examined. The effectiveness of MSP depends on whether its planning proposals are adopted or undermined through either the absence of planning or the fragmentation of marine spaces into "marine plots" and development zones. For MSP to be effective and equitable, special attention must be given to the fair representation and participation of vulnerable social groups and users in decision-making processes. New approaches to more inclusive and socially conscious governance should be adopted, along with increased awareness of how new boundaries, property rights, and activities can affect the rights, livelihoods, and food security of local communities (Bennett et al., 2019) that depend on the preservation of the marine environment.

By adopting an ecosystem-based approach in MSP, there is potential to reverse detrimental policies that privatize marine spaces and exclude or prohibit the most vulnerable uses and users. According to the relevant literature (Frazão Santos et al., 2018), in various countries where the ecosystem-based approach is implemented, MSP places less emphasis on economic growth and instead focuses on achieving the sustainability of marine space uses and the equitable distribution of benefits among users. In such cases, MSP can identify areas in need of protection and regulate protected zones within a marine spatial plan that prioritizes the conservation of marine areas and their ecosystems. This approach centers on the preservation of marine ecosystems while strengthening traditional values and uses (Gissi et al., 2018; Portman et al., 2013).

The European Union's Directive 2014/89/EU[4], which sets the framework for MSP across the 22 coastal member states, explicitly emphasizes the importance of an ecosystem-based approach. This approach aims to ensure

> "that the collective pressure of all activities is kept within levels compatible with the achievement of good environmental status and that the capacity of marine ecosystems to respond to human-induced changes is not compromised, while contributing to the sustainable use of marine goods and services by present and future generations."

While the Directive mandates member states to establish MSP frameworks, the real challenge lies in balancing the expansion of energy infrastructure with the conservation of marine biodiversity. According to Borja et al. (2024), cumulative pressures from maritime transport, seabed extraction, and infrastructure development are already degrading ocean health and undermining human well-being. The authors call for urgent action to monitor these pressures, arguing that MSP should incorporate the principles of the UN Decade of Ocean Science and the Sustainable Development Goals (SDGs)

[4]European Commission, Report on the implementation of the Marine Strategy Framework Directive, Brussels, 25.6.2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1593613439738&uri=CELEX:52020DC0259

to maintain the resilience of marine ecosystems. New legislative developments at the EU level, such as the Nature Restoration Law (Hering et al., 2023), underscore the need to adapt existing MSP frameworks. These initiatives require integrated assessments of future ecological and socio-economic conditions. Yet, as Galparsoro et al. (2025) demonstrate, many national plans still lack the flexibility and foresight required for long-term adaptive management. In summary, the promise of MSP to deliver sustainable and equitable marine governance hinges on its ability to genuinely balance industrial expansion with biodiversity protection, social equity, and long-term ecosystem health.

This paper examines how Greece is addressing these challenges, particularly in terms of policy development and the resolution of spatial allocation conflicts. However, the recent discovery of underwater mineral deposits introduces additional risks and challenges for MSP, particularly in safeguarding the Mediterranean's fragile ecosystems and unique marine biodiversity. These developments underscore the urgency of implementing robust and precautionary planning measures to prevent irreversible environmental degradation.

3 The Overlapping of Offshore Energy Infrastructures with Marine Protected Areas as a Threat to Marine Conservation

The Mediterranean Sea, as the broader spatial unit encompassing Greece's marine territory, provides a critical lens for examining the complex interactions and conflicts associated with recently discovered mineral resources. This region spans over 20 countries across three continents, characterized by multiple geopolitical tensions, large (and growing) populations, extensive coastal development, and the overexploitation of natural resources. These factors collectively pose significant threats to biodiversity conservation.

While marine protected areas (MPAs) coverage in the Mediterranean more than doubled to 12.3% between 2012 and 2022 efforts must intensify significantly to meet the EU Biodiversity Strategy's target of protecting at least 30% of EU seas by 2030[5]. Moreover, the mere designation of protected areas is insufficient without ensuring their effective management and enforcement, a challenge that remains unresolved. Current trends suggest that achieving this target is unlikely under existing governance frameworks.

These data underscore a broader governance dilemma. While MSP is intended to coordinate competing maritime uses, the absence of explicit restrictions on energy infrastructure within or near protected areas reveals a critical inconsistency in its implementation. The spatial overlap of extractive and renewable energy infrastructures with designated MPAs threatens to erode ecological resilience and undermines the core principles of marine conservation. This regulatory ambiguity is reinforced by high-level EU guidance, which, while nominally promoting sustainability, often frames ocean space as a flexible asset to be optimized for industrial development. For instance, the

[5]https://www.eea.europa.eu/en/analysis/indicators/marine-protected-areas-in-europes-seas

Guidelines for implementing an Ecosystem-based Approach in Maritime Spatial Planning (European Commission, 2021), alongside the *EU Biodiversity Strategy for 2030* (European Commission, 2020), illustrate this tension. The former acknowledges "space-sharing and spatial exclusion conflicts" arising from offshore wind farm proposals and Natura 2000 Special Areas of Conservation, suggesting that "the designation of multiple-use areas in crowded seas may provide one opportunity for sustainable use and for freeing marine space for future blue economy developments while meeting conservation requirements." Similarly, the Biodiversity Strategy explicitly "prioritises solutions such as ocean energy and offshore wind," even within the broader commitment to protect 30% of EU seas.

The European Environment Agency (2024) further emphasizes that "considering trade-offs and implementing maritime spatial planning are crucial to align the EU's ambitions for offshore renewable energy growth with the protection of the marine environment," noting that MSP can enable "co-existence between clean energy, the protection of seas and adequate space for other uses of the marine environment, including transportation, fishing and recreation." By framing spatial conflicts as opportunities and promoting multi-use zones, these strategies implicitly legitimize the encroachment of energy infrastructure into ecologically sensitive areas under the banner of the sustainable blue economy. This discourse risks diluting conservation priorities and subordinating them to growth-oriented policy agendas. Addressing these tensions requires not only improved legal clarity and robust environmental safeguards, but also a fundamental reorientation of MSP from its current function in enabling energy development toward an ecosystem-based and conservation planning paradigm.

Only a few conservation initiatives in the Mediterranean have explicitly acknowledged that oil and gas exploration and production could undermine conservation priorities and objectives (Mazor et al., 2018). This means that even within marine protected areas, there is no de facto explicit prohibition of energy infrastructure. Similarly, a recent study (Lloret et al., 2023) highlights the complex interplay between offshore wind energy development and marine conservation in the Western Mediterranean, describing the overlap or proximity of offshore wind energy zones to Natura 2000 protected areas as "remarkable" and urging "caution." Conducted by researchers from the University of Girona (UdG), the Institut de Ciències del Mar (ICM-CSIC), the University of Barcelona (UB), the International University of La Rioja (UNIR), and the Polytechnic University of Catalonia (UPC), the study reveals that nine offshore wind energy zones and one pilot project either overlap or border marine protected areas within the Natura 2000 Network. The study underscores the need to safeguard these protected areas from the potential adverse effects of offshore wind infrastructure, particularly floating turbines, which represent an emerging technology with limited data on their ecological impacts. The authors argue that, as a general principle and priority, offshore wind energy development in the Mediterranean should be excluded from Natura 2000 sites, other marine protected areas, and their adjacent zones. This precautionary approach is essential to ensure the preservation of marine biodiversity and ecosystem integrity while balancing the growing demand for renewable energy.

Further underlining the need for precaution, Sovinc and Kržič (2025) analyze the IUCN system of protected areas, which comprises six categories based on primary and

secondary management objectives. Categories I a (Strict Nature Reserves) and I b (Wilderness Areas), as well as Category II (National Parks), define 'strict protection' zones—purely natural ecosystems in which human exploitation of resources is either highly restricted or entirely prohibited. In Category I a zones, even anchoring is disallowed; in Category II, all types of extractive use, including recreational fishing, are considered incompatible with conservation objectives. Thus, offshore oil and gas activities or even renewable infrastructure such as wind turbines are fundamentally at odds with the core principles of these protection levels. Yet, most Mediterranean MPAs do not currently fall under these strict categories, enabling legal ambiguities and spatial conflicts to persist.

A particularly illustrative example of these challenges is the Cetacean migration corridor in the Spanish Mediterranean coast[6]. Declared a Marine Protected Area by the Government of Spain in June 2018 and covering approximately 46,385 km², this corridor is used by 10 species of threatened marine mammals. Until its official designation, the corridor was subjected to intense human pressures including maritime traffic, fishing activity, and offshore oil and gas exploration and exploitation. These activities generate noise pollution and vibrations detrimental to cetacean communication, navigation, and overall well-being. The establishment of this MPA - under the Barcelona Convention - represents a landmark step toward cross-border marine conservation in the Western Mediterranean but also exemplifies the delayed recognition of threats posed by industrial encroachment on vital ecosystems.

The overlapping of energy infrastructure with MPAs thus highlights a broader governance challenge. While MSP aims to balance competing uses of marine spaces, the lack of explicit prohibitions on energy infrastructure within protected areas undermines conservation goals. Bridging this gap will require the EU and its member states to clarify legal protections for strictly protected zones, harmonize conservation and energy policies, and recalibrate MSP to prioritize ecological integrity over sectoral optimization.

4 Marine legislative framework, offshore energy infrastructures and marine protected areas: The case of Greece

4.1 Marine legislative framework

The marine legislative framework in Greece has evolved significantly in recent years, shaped by both European Union directives and national policies, reflecting a complex interplay of environmental, economic, and geopolitical interests. Over the past decade, research initiatives such as the SUPREME (2017-2018) and THAL-HOR 2 (2018-2023) projects have played a pivotal role in advancing the understanding and implementation of MSP and Integrated Coastal Zone Management (ICZM) in Greece.

[6]For further reference: https://rac-spa.org/node/1679

The SUPREME project (case studies: Inner Ionian-Corinthian Gulf, and the Myrtoon Sea) focused on supporting the implementation of the EU MSP Directive in Eastern Mediterranean Member States, fostering cross-border MSP initiatives. Aligned with the Barcelona Convention Strategies and Protocols, it advanced the ecosystem-based approach at regional and sub-regional levels while addressing local and transboundary MSP challenges. The project also highlighted risks associated with hydrocarbon extraction and transportation, such as potential accidents that could threaten the unique Mediterranean coastline and the water quality of this semi-enclosed sea. Meanwhile, the THAL-HOR 2 project (case study: wider North Aegean region) emphasized a balanced approach to blue economy development, integrating energy, tourism, fisheries, aquaculture, and transport activities while protecting the natural and cultural environment. This project promoted the coexistence of activities, conflict mitigation, and the minimization of ecological footprints, aiming to enhance socio-economic conditions and resilience in coastal communities (Yiannakou et al., 2024). However, the Greek state appears to have undermined these academic efforts, despite its participation in drafting pilot MSP plans that proposed regulated, synergistic, and environmentally conscious MSP.

MSP was formally incorporated into the Greek spatial planning with the enactment of Law 4546/2018 (later amended by Law 4759/2020). This legislation introduced two primary planning instruments: the National Marine Spatial Strategy (NMSS), integrated into the national spatial strategy, and Marine Spatial Frameworks (MSFs), which replaced Marine Spatial Plans (MSPlans) following Law 4685/2020. MSFs operate at a regional or inter-regional scale, setting strategic guidelines for the spatial allocation and use of marine space.

However, the legislative framework has faced criticism for its contradictions and delays. While Articles 4 and 8 of Law 4546/2018 emphasize the harmonious coexistence of activities and climate resilience, they also include provisions for hydrocarbon extraction, framing it as an economic activity contributing to an integrated marine spatial development. This inclusion has raised concerns about the prioritization of economic interests over environmental protection, particularly given the planned allocation of marine zones for future oil and gas exploration and infrastructure development.

Between 2020 and 2022, four key legislative amendments have shaped Greece's marine spatial planning framework:

1. Law 4685/2020 modernized Greece's environmental legislation, promoting renewable energy projects, even within marine protected areas
2. Law 4759/2020 introduced significant changes to spatial planning regulations, removing coastal zones from the scope of MSP, favoring sectoral over ecosystem-based approaches, and prioritizing economic interests over integrated maritime governance
3. Law 4964/2022 simplified environmental licensing procedures and established a framework for offshore wind farm development, while weakening protections for Natura 2000 sites to accommodate oil and gas infrastructure
4. April 2022 saw the restructuring of the Hellenic Hydrocarbons Company into the Hellenic Hydrocarbons and Energy Resources Management Company

(HEREMA) expanded its portfolio, granting it authority over licensing and managing energy resources, further prioritizing energy sector interests

Despite the EU's requirement for member states to adopt national MSPs by March 31, 2021, Greece failed to comply, leading to a condemnation by the European Court of Justice on February 27, 2025. The court rejected Greece's defense, which cited geopolitical tensions in the Eastern Mediterranean, legislative complexities, and the country's extensive coastline and insular geography as justifications for the delay. The ruling emphasized that Greece's failure to implement MSP cannot be attributed to unresolved maritime boundary disputes, reaffirming that national MSP obligations are independent of Exclusive Economic Zone (EEZ) delineations[7]. This decision highlights the Greek government's persistent reluctance to institutionalize MSP in a manner that balances economic development with marine conservation. This ruling underscored Greece's systemic failure to implement a coherent MSP framework, instead favoring ad hoc regulatory adjustments that facilitate capital-intensive energy investments at the expense of environmental sustainability and communities interests.

The Greek government's approach to marine spatial governance appears to rely on two key policy tools: (1) non-planning, which deliberately postpones regulatory interventions to maintain a legal vacuum that benefits specific economic sectors, and (2) selective planning, which prioritizes industry-driven spatial allocations over comprehensive, ecosystem-based management.

In conclusion, while Greece has made nominal progress in integrating MSP into its legal framework, its implementation remains heavily skewed toward facilitating energy sector interests. The continued regulatory delays and sectoral favoritism suggest a deliberate strategy that undermines sustainable marine governance. The following section will examine the licensing and spatial allocation of offshore energy infrastructures, shedding light on how Greece's MSP policies have been shaped to accommodate specific economic and geopolitical agendas.

4.2 Offshore energy infrastructures

Since 2019, Greece has actively pursued hydrocarbon exploration in its marine areas, seeking to integrate fossil fuel extraction into its national energy model. This move aligns with the broader blue growth agenda, which prioritizes the expansion of the energy sector and treats marine spaces as a new frontier for energy development. Offshore energy infrastructures -encompassing both fossil fuel extraction and renewable energy installations- have become a central component of Greece's evolving MSP strategy. These policies are designed to maximize the utilization of marine spaces, often at the expense of environmental and social considerations.

This approach has led to distinct patterns of marine space appropriation and privatization Schlüter et al., 2020; Ertör & Hadjimichael, 2020), as spatialized legislation seeks to accommodate multiple uses of marine areas, capitalizing on the blue growth narrative. Greece's ambition to position itself as a regional energy hub underscores its geopolitical aspirations. To achieve this, the country has facilitated numerous energy

[7]Point 38 of the condemnatory decision

projects, particularly in liquefied natural gas (LNG), hydrocarbon exploration, and, more recently, offshore wind farms. Several factors support this objective.

On September 18, 2019, Greece's parliament ratified four offshore hydrocarbon exploration and exploitation contracts, covering maritime zones adjacent to Crete and the Ionian Sea. These agreements were formalized through Laws 4628/2019 (Southwest Crete), 4629/2019 (Ionian Sea), 4630/2019 (Ionian Block 10, Kyparissia Gulf), and 4631/2019 (West Crete). In April 2022, hydrocarbon projects were further elevated to projects of national importance, drastically accelerating licensing procedures and streamlining government approvals. The active contract portfolio now includes the Katakolon field, currently in the development phase with a proven oil and gas discovery, as well as five offshore blocks in the exploration phase[8]. These concessions span vast maritime areas, covering nearly all of western Greece, the Ionian Sea, and extending offshore from the western Peloponnese to southeastern Crete.

Recent updates in 2025 indicate renewed investment interest in hydrocarbon exploitation, particularly from the US oil giant Chevron, alongside ExxonMobil, which already controls the two offshore Crete blocks (West of Crete and Southwest of Crete). Chevron, in a joint venture with HELLENiQ ENERGY, has acquired seismic data for offshore blocks 'Block A2' and 'South of Peloponnese.' The Greek Ministry of Environment and Energy has announced an international tender for two offshore blocks covering more than 11,000 km², with a 25-year lease term and a seven-year exploration period. In January and March 2025, the Greek government accepted Chevron's expressions of interest for hydrocarbon exploration in two offshore areas—one spanning from southwest of the Peloponnese to west of Crete, and another south of Crete—covering a combined area of approximately 46,000 km². The tender process appears tailored to Chevron's strategic goals, reinforcing natural gas's role as a transitional fuel under the EU's green transition framework (Widuto, 2023). However, this strategy has been widely criticized for contradicting climate commitments by perpetuating fossil fuel dependency.

These four concessions are the latest additions to Greece's hydrocarbon portfolio, with HEREMA advising the Greek State on their acceptance (HEREMA, 2025).[9]

Alongside hydrocarbon investments, Greece is advancing two additional fields of offshore energy infrastructure development as policy priorities. First, the country is expanding its FSRU network, integrating these facilities with the national gas transmission system. The Revithoussa LNG terminal, Greece's first LNG import facility, has been operational since 2000. More recently, the Alexandroupoli FSRU began operations, marking the country's first FSRU-based facility. By 2025–2026, four additional FSRUs are expected to become operational[10], further solidifying Greece's role as a gas

[8]Katakolon is in the development phase, while five concessions are in the exploration phase: three offshore blocks located in the Ionian Sea (Block 2, Block 10, and the Ionian Block), two blocks offshore Crete (West of Crete and Southwest of Crete). For further reference: https://herema.gr/upstream-oil-gas-exploration/

[9]Map of the hydrocarbon concession is available at: https://herema.gr/start-of-licensing-process-for-new-concessions-for-hydrocarbon-exploration/

[10]The four new FSRUs: 1. Alexandroupolis LNG Terminal: Following the launch of operations at the Alexandroupolis LNG terminal, Gastrade has announced that it has received regulatory

hub for Southeastern Europe and the Balkans. These facilities are anticipated to serve as new supply gateways, strengthening Greece's energy export capabilities and geopolitical influence.

Second, a notable policy advancement is taking shape in the domain of offshore wind energy. In October 2023, HEREMA unveiled the Draft National Programme for Offshore Wind Energy. This strategic initiative delineates 25 Organized Development Areas (ODAs), covering approximately 2,712 km². These areas, primarily suitable for floating wind technologies, are located in maritime zones such as Eastern Crete, Southern Rhodes, the central Aegean, the Evia–Chios axis, and the Ionian Sea (HEREMA, 2023b). Licensing has already begun for two pilot offshore wind farms[11] and floating photovoltaic installations[12]. In January 2025, a partnership between Motor Oil and Terna Energy (with UAE-based Masdar) announced Greece's first full-scale offshore wind farm: a 600 MW installation located south of Alexandroupolis, expected to become operational by 2030[13].

This marks a strategic shift towards integrating offshore wind farms, energy pipelines, and storage infrastructure under Greece's broader energy framework. The CEO of HEREMA has explicitly linked this strategy to regional stability, stating that the company's vision is to ensure national energy security while contributing to peace in the region (HEREMA, 2023a). However, the increasing demand for new energy resources—whether renewable or non-renewable—has extended the frontier of exploitation to marine environments.

While the emergence of a structured national framework signals significant progress, critical challenges remain in terms of spatial planning, ecological impact, and regulatory coherence. Consequently, the fragmentation of maritime space into geopolitical spheres of influence, mining blocks, and energy infrastructures is closely linked with its ongoing privatization, which has rapidly evolved since 2019. Legislative amendments have accelerated this process, reshaping geopolitical dynamics and intertwining energy disputes with broader international and regional power politics. However, this vision is fraught with contradictions. Offshore oil and gas exploration in the Eastern

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approval for a second FSRU, which will be installed offshore in the same area. 2. Dioryga Gas in the Gulf of Agioi Theodoroi: Another LNG import project, led by Greek refiner Motor Oil, is planned for Corinth. This project, called 'Dioryga LNG', is currently in development. 3. Thessaloniki FSRU: Elpedison has its own project, the Thessaloniki FSRU, which is expected to become operational in 2025. This facility will also utilize a floating platform. 4. Mediterranean Gas in Volos: The Company has not yet begun operations, as it is still in the process of conducting studies and obtaining permits for its business plan, the 'Argo FSRU'. For further reference:

- Balkan Green Energy News: Launch of works on Alexandroupolis LNG terminal in Greece heralds reduced dependence on Russian gas for the Balkans
- Greek News Agenda: Greece as an LNG Hub

[11]For further reference: https://www.terna-energy.com/deltio-tipou/ekdosi-adeias-ereynas-gia-pilotika-er/ & https://herema.gr/issuance-of-the-first-2-research-licenses-for-offshore-wind-farm-pilot-projects/

[12]For further reference: https://energyin.gr/2025/03/12/

[13]For further reference: https://www.trade.gov/market-intelligence/greece-offshore-wind-projects

Mediterranean has intensified geopolitical competition rather than fostering stability. The prioritization of sectoral investments through legislative measures—including offshore renewables under Law 4964/2022—alongside geopolitical and energy market-driven expansions, defines the broader framework governing Greece's offshore energy exploitation.

Recent Greek scientific literature highlights the critical role of MSP as an evolving governance tool aiming to address the challenges posed by the intensification of offshore energy infrastructure and other competing maritime uses. As Gourgiotis, Coccossis, and Tsilimigkas (2023) underscore, MSP in Greece must operate as a dynamic and adaptive process capable of adjusting to rapid geopolitical, environmental, and technological changes while remaining grounded in long-term strategic choices. The National Spatial Strategy for the Maritime Space aspires to harmonize ecological protection with economic development, offering a clear spatial framework to both preserve sensitive marine ecosystems and create conditions conducive to sustainable investment. As Gourgiotis et al. (2024) note in a case study of the Northern Aegean, maritime space is becoming increasingly congested due to the cumulative pressures of offshore energy infrastructure (e.g. FSRUs and future wind farms), growing maritime transport linked to port expansion and LNG trade routes, the spatial demands of aquaculture and fisheries, and the dual role of coastal zones as tourism hotspots and biodiversity repositories. Strategic infrastructure, such as the ports of Thessaloniki, Kavala, and Alexandroupoli, is transforming into energy and logistics hubs, thereby increasing the intensity of maritime activity. At the same time, the push for offshore renewables (especially in light of the war in Ukraine and the shift to LNG) raises urgent questions about spatial compatibility, ecological thresholds, and equity among uses. While new MSP instruments aim to provide a coordinated framework, many current developments, such as FSRU deployments, have proceeded in the absence of an approved marine spatial plan. This regulatory lag underscores the need for robust participatory processes, integrated land-sea governance mechanisms, and a clear articulation of carrying capacities to ensure the equitable and ecologically sound distribution of maritime uses.

The rapid deployment of LNG and FSRU facilities underscores a trajectory favoring fossil fuel infrastructure, a trend extensively critiqued for its climate, environmental, and social impacts. Kieninger et al. (2024) highlight the risks of locking into fossil gas pathways, emphasizing their long-term incompatibility with climate mitigation targets. Their study outlines how "a lock-in of fossil gas now means a pathway for even more fossil fuel infrastructure in the future […] supporting the exact opposite of what is needed to mitigate catastrophic climate change." This paradox has been analyzed in numerous studies (e.g., UN, 2020; Agardy, 2020; Barbesgaard, 2018; Bennett et al., 2015; Pedersen et al., 2014; De Schutter, 2012; Schlüter et al., 2020; Ertör & Hadjimichael, 2020), which critique the EU's promotion of natural gas as a transitional fuel while simultaneously undermining its climate goals.

The commodification of marine space for energy extraction is not a novel development; rather, it has evolved over decades. The 1973 initiation of the United Nations Convention on the Law of the Sea (UNCLOS) laid the groundwork for exclusive economic zones (EEZs) and state jurisdiction over marine resource exploitation. The 1982 UNCLOS established EEZs (UNCLOS, 1998), granting coastal states rights to exploit

marine resources within 200 nautical miles of their shores (Brent et al., 2020). This framework has facilitated the blue growth agenda, which focuses on emerging industries such as offshore wind energy and deep-sea mining to extract minerals critical for renewable energy technologies (Childs & Hicks, 2019; Childs, 2022). However, the oil and gas industry has remained dominant, accounting for nearly 34% of the total value of ocean-based industries in 2010 (OECD, 2016). This underscores the difficulty of promoting a sustainable blue growth agenda without confronting the entrenched interests of the fossil fuel sector.

The ongoing privatization and appropriation of maritime areas for energy purposes reflect broader patterns of ocean grabbing and blue growth-driven industrialization. The tension between marine conservation and energy expansion remains central to Greece's evolving MSP framework, raising fundamental questions about the sustainability of its offshore energy strategy. The following chapter will examine the implications of these developments for marine protected areas (MPAs) and the broader marine environment.

4.3 Marine protected areas

In Greece, the framework for the protection of both terrestrial and marine protected areas remains fragmented, leading to significant challenges in their effective management. The Natura 2000 sites were formally designated under Law 4519/2018, which established Management Bodies for Protected Areas. This legislative step provided a crucial opportunity to safeguard and promote areas of outstanding natural and cultural significance. However, this progress was soon undermined by Law 4685/2020, which significantly weakened protective measures for coastal and marine environments. This law reflects a policy stance that perceives environmental regulations as obstacles to economic development, while simultaneously prioritizing unrestricted business activity within protected areas.

One of the most controversial provisions of Law 4685/2020 is Article 44, which allows for the licensing of mining and hydrocarbon extraction activities within protected Natura 2000 areas, posing an immediate threat to marine ecosystems. Furthermore, Article 110 removes the authority of local governments to provide input on extraction projects within their jurisdiction, thereby centralizing decision-making and reducing local oversight. The overall effect of the law is to elevate the interests of the fossil fuel industry to a strategic national priority, providing incentives and regulatory tools to facilitate extraction. As a result, the spatial footprint of hydrocarbon activities is expanding offshore, at the expense of other valuable resources, such as Greece's rich marine biodiversity. The intensification of sectoral conflicts in marine space is a direct consequence of this selective economic prioritization, which disregards cultural and non-commercial values, as well as non-industrial actors in marine governance.

Approximately seven months after the enactment of Law 4685/2020, the European Court of Justice issued a ruling (C-849/19), which condemned Greece for its failure to comply with EU biodiversity conservation laws. The court found that Greece had systematically neglected its obligations under the Habitats Directive, with violations affecting all Sites of Community Importance (SCIs). Specifically, 81.5% of Special Areas of Conservation (SACs) within the country's 239 SCIs lacked any conservation

measures, while the remaining 18.5% were subject to incomplete and fragmented protective measures that failed to ensure meaningful protection (Articles 80-82 & 86)[14]. Notably, Article 86 of the ruling explicitly criticizes the inadequacy of conservation efforts for marine habitats and species, emphasizing that the so-called protective measures do not effectively safeguard marine ecosystems.

The push for energy infrastructure has drawn significant criticism from environmental organizations. WWF Greece has denounced the government's approval to grant hydrocarbon exploration licenses to Chevron and HELLENiQ Energy in the Ionian Sea and south of the Peloponnese, arguing that deep-sea mining is fundamentally incompatible with the proclaimed green transition. The organization has specifically denounced the government's decision to alter the boundaries of the planned Ionian National Marine Park to accommodate new hydrocarbon concessions, characterizing this approach as inconsistent with conservation objectives. The Chevron licensing case epitomizes this contradiction, as the designated mining blocks now overlap with areas that were originally intended for environmental protection.

This contradiction becomes particularly tangible when examining the spatial configuration of hydrocarbon concessions in relation to designated or proposed MPAs. A prominent case lies in the Ionian Sea and the marine corridor stretching from the western Peloponnese to south Crete, where exploration blocks granted to multinational corporations (ExxonMobil, Chevron, and HELLENiQ Energy) overlap significantly with existing Natura 2000 sites and the announced Ionian Marine Park. Notably, the Ionian exploration zones lie in close proximity to the planned Ionian Marine Park, raising significant concerns about potential conflicts with conservation objectives. These zones host high marine mammal diversity, including critical habitats for cetaceans, deep-sea corals, and other vulnerable marine species, yet they have been targeted for high-impact industrial activities. This spatial overlap is not incidental; it is enabled by Greece's MSP framework, which lacks explicit exclusion zones for extractive industries in ecologically sensitive areas.

As of 2024, Greece's MPAs cover 22,796 km²—18.3% of national marine waters. To meet the 30% target by 2030, mandated by Law 5037/2023, the government has announced two new marine national parks, including the Ionian Marine Park[15]. Spanning over 14,000 km², it encompasses the Ionian segment of the Hellenic Trench and supports rich biodiversity, including endangered whales, dolphins, monk seals, sea turtles, Posidonia oceanica meadows, and deep-sea coral habitats[16]. While this initiative was presented as a commitment to marine biodiversity protection, it has been overshadowed by the state's failure to meet its existing regulatory obligations for MPAs. A comprehensive evaluation report published by nine Greek environmental organizations in

[14]For further reference: https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX:62019CJ0849

[15]In April 2024, during the 9th Our Ocean Conference held in Athens, the Greek government announced plans to establish two new extensive Marine Parks—one in the Aegean Sea, covering approximately 45 uninhabited rocky islets and their surrounding marine zones, and one in the Ionian Sea.

[16]For further reference: https://sdgs.un.org/partnerships/enlargement-marine-protected-areas-network-greece-meet-30-target

2024[17] highlights significant shortcomings in MPA governance, primarily caused by extensive delays in implementing required Presidential Decrees and Management Plans. The report further points to systemic understaffing and lack of coordination, leaving all protected areas in a state of legal uncertainty. Moreover, much of the proposed park overlaps with active hydrocarbon concessions, further illustrating the incoherence of spatial governance and the subordination of conservation priorities to industrial and geopolitical interests.

Region	Hydrocarbon Concession Blocks	Block Size (Km2)	Licensees	Overlapping Protected Areas	Latest developments / Key facts	Key Biodiversity Features	Notable Events / Advocacy
Ionian Sea: Corfu Region	Block 2	2,422.10	Energean Hellas Ltd. (75% and Operator) and HELLENiQ Upstream West Kerkyra Single Member S.A. (25%)	Proximity to Hellenic Trench IMMA, adjacent Natura 2000 sites	March 2024: Block 2 license granted 12-month extension	Ionian Archipelago IMMA	February 2022: 3 Cuvier's beaked whales stranded on Corfu's beaches coinciding with seismic exploration activities. OceanCare and other NGOs urged the Greek government to halt oil and gas exploration.
	Ionian Block	6,671.13	HELLENiQ Upstream Ionian Single Member S.A. (100%)		July 2023: Launch of 2nd exploration phase in the offshore areas of Ionian block & Block 10		
Ionian Sea & Crete: Hellenic Trench	Block 10: Kyparissiakos Gulf	3,420.60	HELLENiQ Upstream Kyparissiakos Gulf Single Member S.A. (100%)	Natura 2000 sites, Proposed Ionian Marine Park, overlapping with Hellenic Trench IMMA		Hellenic Trench IMMA	May 2019: over 100 scientists organizations called on the Greek Prime Minister for immediate protection of the Hellenic Trench from hydrocarbon exploration.
	Block A2	826	Chevron Balkans Exploration B.V. and HELLENiQ		January 2025: Greek government accepted Chevron's expression of interest for hydrocarbon exploration in this area. The block lies near the proposed Ionian Marine National Park and overlaps with ecologically sensitive areas, triggering criticism from environmental NGOs regarding spatial planning inconsistencies.		
	South of Peloponnese	10,211	Chevron Balkans Exploration B.V. and HELLENiQ				
	West of Crete	20,058.40	ExxonMobil Exploration & Production Greece B.V. (70% and operator) and HELLENiQ Upstream West Crete Single Member S.A. (30%)	Proximity to proposed Ionian Marine Park, overlapping with Hellenic Trench IMMA	October 2024: 2nd phase of surveys conducted by the ExxonMobil/HELLENiQ ENERGY joint venture officially started		
	Southwest of Crete	19,868.37	ExxonMobil Exploration & Production Greece B.V. (70% and operator) and HELLENiQ Upstream SouthWest Crete Single Member S.A. (30%)				
	South of Crete 1	13,347	Chevron Balkans Exploration B.V. and HELLENiQ	overlapping with Hellenic Trench IMMA	March 2025: Greek government accepted Chevron's expressions of interest for these two offshore zones, together covering more than 35,000 km². These blocks intersect with the Hellenic Trench IMMA, prompting renewed concerns about cumulative impacts on deep-sea habitats and marine mammals.		
	South of Crete 2	21,805.00	Chevron Balkans Exploration B.V. and HELLENiQ				

Fig. 1. Spatial overlaps between Hydrocarbon Concessions and Marine Protected Areas in Greece

[17]For further reference: https://wwfeu.awsassets.panda.org/downloads/mpasesen.pdf

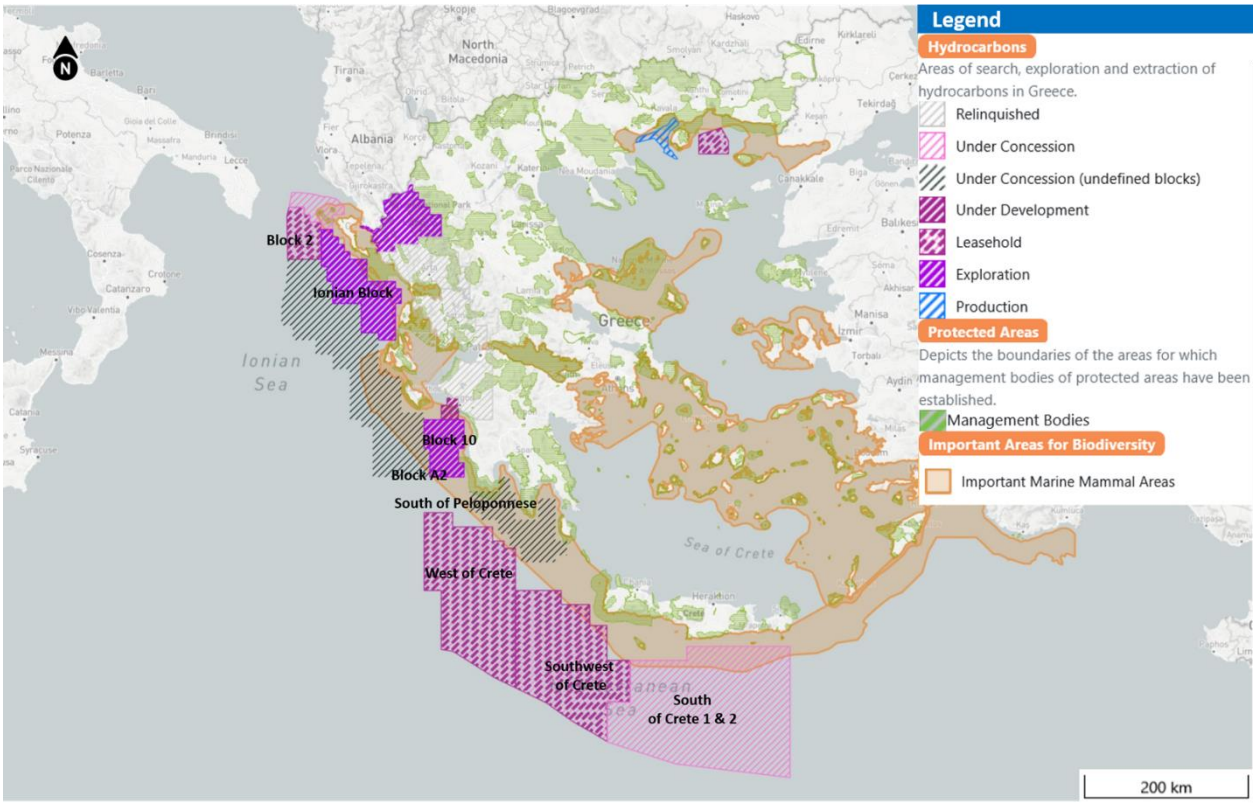

Fig. 2. Hydrocarbon Concessions vs. Marine Protected Areas in Greece (with oikoskopio.geodiv.page base map)

Drawing on the analysis of Klampatsea (2023)[18], the prevailing political approach to spatial planning in Greece has been characterized by "non-planning" - a pattern of delayed or incomplete regulatory frameworks that enable inconsistent development patterns. This dynamic is particularly evident in marine and coastal areas, where the lack of governance protection enables the unregulated expansion of industrial activities, particularly those related to energy exploitation. Under this framework, MPAs are treated not as conservation priorities but as areas subject to technocratic zoning, where economic interests dictate the extent and nature of protection. The zoning imposed by Law 4685/2020 exemplifies this trend, as it subordinates natural capital and biodiversity to the overarching logic of economic development.

This approach aligns with broader trends in Greece's energy strategy, where FSRUs and new hydrocarbon extraction initiatives serve both commercial and geopolitical objectives. At the same time, the state actively promotes new energy infrastructure under the umbrella of *blue growth*, further entrenching extractive industries in Greek waters.

[18] For further reference: https://helios.ntua.gr/pluginfile.php/251246/mod_label/intro/klabatsea-krisi%20xorotaxias%2024-10-2023%20skitsa-b.pdf (in Greek)

Beneath the rhetoric of energy security and resource utilization lies a broader framework of vested interests. The apparent contradiction between environmental protection measures and large-scale energy projects reflects the geopolitical priorities and economic interests at play. HEREMA, now responsible for licensing both fossil fuel and renewable energy projects, embodies this contradiction, demonstrating how state policy serves to facilitate specific corporate interests under the guise of energy transition.

Within this policy landscape, marine conservation remains a secondary concern, and the designation of new MPAs in the Ionian and Aegean Seas appears to prioritize symbolic over a substantive marine conservation policy. The fragmented and politically motivated nature of these initiatives underscores the broader reality that marine protection in Greece continues to be treated as a political maneuver rather than an integrated governance priority.

5 Conclusions

The spatial allocation of installations and activities in marine and coastal areas must ensure the prevention of pollution, the protection and conservation of marine and coastal ecosystems, and the avoidance of disturbances to adjacent uses and activities. This study has shown that the current spatial planning model in Greece systematically prioritizes economic and industrial objectives, particularly energy infrastructure, over environmental protection and marine conservation. Based on the methodology and research focus adopted, specific findings have emerged regarding the regulatory framework, spatial allocations, and the governance gaps that shape marine planning in Greece. The empirical analysis, drawing on legal texts, national planning documents, spatial data, and a focused case study in the Ionian Sea, reveals a recurring pattern of extractive expansion into ecologically sensitive marine zones. Despite formal commitments to sustainability and ecosystem-based planning, the Greek MSP framework reinforces sectoral fragmentation, limited environmental safeguards, and the subordination of marine conservation to energy development imperatives.

The overlap between hydrocarbon concessions and designated or proposed Marine Protected Areas (MPAs) exemplifies these tensions. Facilitated by legal and administrative mechanisms that favor extractive industries, this spatial convergence undermines ecological integrity and raises concerns about spatial justice, particularly for local communities reliant on coastal and marine ecosystems. The risk of accidents or spills further threatens not only environmental quality but also the long-term viability of other productive sectors. This article contributes to ongoing debates on how MSP can be disentangled from fossil fuel dependency while prioritizing the most vulnerable uses of marine space.

Furthermore, the development of LNG and FSRU facilities along with offshore renewables - though framed as part of the green transition or blue growth - continues to follow a business-led model that reproduces many of the governance weaknesses seen in fossil fuel planning. Without stronger environmental enforcement, transparent evaluation mechanisms, and a shift away from cumulative industrial zoning, marine ecosystems remain at risk of irreversible degradation.

As indicated in the paper, a growing literature on MSP reveals that various national policies often create risks for MPAs. Despite the widespread adoption of blue growth rhetoric, MSP frameworks often undermine the sustainable coexistence of activities in marine spaces**.** In recent years, an emerging body of critical literature (Hadjimichael, 2018; Agardy, 2020; Brent et al., 2020; Ertör & Hadjimichael, 2020; Mallin & Barbesgaard, 2020; Lloret et al., 2023) has highlighted the failure of many MSP initiatives to promote sustainable or equitable uses of marine and coastal environments.

To achieve more equitable and sustainable marine governance, Greece must adopt a more integrated and adaptive MSP approach aligned with ecosystem-based principles outlined in EU directives and international best practices. This includes reassessing hydrocarbon licensing, improving the coherence of spatial planning legislation, and embedding marine conservation as a central component of planning frameworks. Effective MSP framework must address both marine-based and land-based drivers of degradation, while also fostering transboundary cooperation and improved management of shared marine resources. MSP processes should go beyond regulating economic activity to also safeguard the rights and needs of local communities whose livelihoods are directly affected by large-scale maritime industries.

As global climate change and political pressures continue to shape marine conservation, there is an urgent need for adaptive, forward-thinking approaches to MPAs. One such approach is the concept of "flexible MPAs"—dynamic, responsive conservation areas that adjust their boundaries and regulations based on ecological and environmental needs rather than rigid, static zoning models (De Santo, 2024). Given the current trajectory of MSP in Greece, the challenge remains to transition from business-driven policymaking to a truly ecosystem-based approach that values marine biodiversity and integrates conservation into national and regional planning strategies.

Ultimately, the study highlights the need to rethink how marine space is governed in Greece, ensuring that planning frameworks prioritize ecological resilience, the public interest, and the long-term viability of marine and coastal systems over short-term industrial gain.

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