Revisiting Coastal Spatial Permitting Regulations toward Sustainable Coastal Zone Management

Didi Nursidi [a,*], Sugianto [b], Nurul Chotidjah [c], Roqiyul Ma'arif Syam [d]

[a] Faculty of Law, Universitas Wiralodra, Indramayu, Indonesia.
[b] Faculty of Sharia, IAIN Syekh Nurjati Cirebon, Cirebon, Indonesia.
[c] Faculty of Law, Universitas Islam Bandung, Bandung, Indonesia.
[d] Kent Law School University of Kent, Centerbury, United Kingdom.

* Corresponding Author: didi.nursidi@unwir.ac.id

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ABSTRACT

Indonesia faces increasingly complex challenges in managing coastal zones because the rapid expansion of marine spatial utilization has not been followed by an integrated, coherent, and consistent permitting governance system. This study analyzes regulatory inconsistencies in coastal spatial permitting, examines foreign regulatory frameworks through comparative assessment, and formulates a more adaptive and integrated model of coastal permitting governance. The research applies a normative legal method through statutory, comparative, and case study approaches. The findings present three major conclusions. First, Indonesia's coastal spatial permitting regime contains horizontal, vertical, and temporal inconsistencies among overlapping legal norms and institutional arrangements. These conditions fragment governmental authority, create legal uncertainty, weaken coordination between central and regional institutions, delay approvals for Conformity of Marine Spatial Utilization Activities, and trigger recurring conflicts in coastal space utilization. Second, comparative analysis of the United Kingdom and China demonstrates that effective coastal governance requires integrated spatial planning, strong institutional capacity, and coherent regulatory design. These elements clarify authority allocation, improve licensing efficiency, and strengthen environmental protection. Third, reform of the permitting system through the Coastal Waters Spatial Utilization Conformity framework should integrate planning and licensing mechanisms, apply an ecosystem-based approach, strengthen digital and spatial data systems, expand meaningful public participation, and improve interinstitutional coordination. These measures can create a more equitable, transparent, and sustainable model of coastal governance in Indonesia.

Introduction

Coastal areas play a strategic role in supporting environmental sustainability, driving economic activities, and sustaining the social dynamics of communities.[1] This significance is closely linked to the inherent characteristics of coastal zones as

[1] Naimah Lutfi Talib and others, 'Three Centuries of Marine Governance in Indonesia: Path Dependence Impedes Sustainability', *Marine Policy*, 143 (2022), 105171 https://doi.org/10.1016/j.marpol.2022.105171

spatial areas with high ecological sensitivity and significant exposure to intensive development pressures. In archipelagic states, coastal zones simultaneously function as environmental buffers, public spaces, and economic assets, particularly in regions where tourism serves as a primary driver of development.[2] Within this context, Indonesia represents a country with a substantial dependence on its coastal areas, given its extensive coastline and rich marine biodiversity. These potential positions coastal zones as one of the central pillars of national strategic development initiatives, particularly in the fisheries, marine tourism, and trade sectors.[3]

In line with these developments, the utilization of coastal and marine space in Indonesia has increased significantly in recent years, particularly in relation to infrastructure development and the growing involvement of multiple sectors in marine spatial use.[4] Data from the Ministry of Marine Affairs and Fisheries of Indonesia indicate that over the past five years, the number of permit approvals has risen substantially. In 2025 alone, the Ministry issued 773 approvals, exceeding its initial target of 600 (reaching 128.83%). This upward trend reflects the growing demand for marine space to support a wide range of investment and development activities.[5] However, the expansion in the number of permits must be accompanied by more sophisticated governance mechanisms, especially in relation to spatial licensing. The intensification of coastal space utilization has not yet been fully matched by an integrated and sustainable marine spatial management system. As a result, a range of environmental, social, and spatial planning challenges has emerged, ultimately posing risks to the long-term sustainability of Indonesia's marine resources.[6]

In response to the various challenges in governing marine spatial utilization, the government has introduced the Conformity of Marine Spatial Utilization Activities policy as part of the broader licensing reform following the enactment of Law

[2] Dimitrios Koumoulidis and others, 'Land Cover Dynamics in Cyprus: Land Use Transitions between 2000 and 2020 across a Coastal Buffer Zone', *City and Environment Interactions*, 29 (2026), 100327 https://doi.org/10.1016/j.cacint.2026.100327

[3] Wellem Anselmus Teniwut and others, 'Do Coastal Communities in Small Islands Value Marine Resources through Marine Protected Areas?: Evidence from Kei Islands Indonesia with Choice Modelling', *Marine Policy*, 157 (2023), 105838 https://doi.org/10.1016/j.marpol.2023.105838

[4] Tubagus Solihuddin and others, 'Coastal Dynamics along the Northern Coast of Java, Indonesia: Scales, Impacts, and Governance Strategies', *Regional Studies in Marine Science*, 95 (2026), 104825 https://doi.org/10.1016/j.rsma.2026.104825

[5] Rina Yulianti and others, 'Reviewing the Regulation of Dispute Settlement Mechanism for Marine Spatial Utilization', ed. by A. Ma'arif and others, *BIO Web of Conferences*, 146 (2024), 01060 https://doi.org/10.1051/bioconf/202414601060

[6] Jiaqi Zhang, Mengdi Liu and Bing Zhang, 'Environmental Policy Integration and Performance: The Effectiveness of China's One Permit Management Reform', *Environmental Impact Assessment Review*, 98 (2023), 106951 https://doi.org/10.1016/j.eiar.2022.106951

Number 6 of 2023 on Job Creation.[7] This policy replaces the previous mechanism, namely the Coastal and Small Islands Zoning Plan, which had not fully met the need for a licensing system that is simplified, integrated, and capable of ensuring legal certainty.[8] Through the Conformity of Marine Spatial Utilization Activities, the government seeks to establish a more adaptive approach that responds to the growing complexity of marine spatial management, while also addressing the persistent issue of regulatory overlap.[9] The Conformity of Marine Spatial Utilization Activities is designed not merely as an administrative requirement but as a strategic instrument to ensure alignment between marine space utilization activities and established spatial planning frameworks.[10] It is expected to enhance both the effectiveness and efficiency of the licensing process, while simultaneously providing greater legal certainty for business actors, investors, and coastal communities. Furthermore, the policy reflects the government's commitment to embedding sustainable development principles into coastal and marine governance, emphasizing a balanced integration of economic interests, environmental protection, and social sustainability.[11]

As a strategic instrument, the Conformity of Marine Spatial Utilization Activities operates within the broader framework of risk-based business licensing implemented through the Online Single Submission – Risk Based Approach (OSS-RBA) system.[12] Its introduction marks a significant shift in Indonesia's licensing paradigm, from a predominantly administrative and procedural model toward one that is more risk oriented. Normatively, this policy is rooted in Law Number 11 of 2020 on Job Creation, later refined through Law Number 6 of 2023, with the aim of strengthening regulatory consistency and enhancing investment competitiveness. The institutional strengthening of the Conformity of Marine Spatial Utilization Activities within the OSS-RBA framework is further reinforced by Government

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[7] Jun Wang and others, 'Monitoring Marine Aquaculture and Implications for Marine Spatial Planning—An Example from Shandong Province, China', *Remote Sensing*, 14.3 (2022), 732 https://doi.org/10.3390/rs14030732

[8] Yingxian Long and others, 'A New Exploration of the "Three Lines One Permit" Policy: Marine Zoning Strategy Based on Land-Sea Coordination', *Environmental Impact Assessment Review*, 103 (2023), 107260 https://doi.org/10.1016/j.eiar.2023.107260

[9] B. Bergseth and others, 'A Practical, Adaptive Compliance Management Framework for Improving Marine Protected Area Effectiveness', *Conservation Biology*, 2026 https://doi.org/10.1111/cobi.70246

[10] Ibon Galparsoro and others, 'Assessment Tool Addresses Implementation Challenges of Ecosystem-Based Management Principles in Marine Spatial Planning Processes', *Communications Earth & Environment*, 6.1 (2025), 55 https://doi.org/10.1038/s43247-024-01975-7

[11] Vasiliki-Maria Perra and Maria Boile, 'Developing a Monitoring and Evaluation Framework for Sustainable Maritime Spatial Planning: A Stakeholder-Driven Approach', *Sustainability*, 17.13 (2025), 5813 https://doi.org/10.3390/su17135813

[12] Sawitri Yuli Hartati S and others, 'Legal Aspects in the Investment Opportunity Map for the Development of Soybean Cultivation in South Sulawesi Province, Indonesia', in *Proceedings of the International Conference on "Changing of Law: Business Law, Local Wisdom and Tourism Industry" (ICCLB 2023)*, 2023, pp. 1395–1408 https://doi.org/10.2991/978-2-38476-180-7_142

Regulation Number 28 of 2025 on Risk-Based Business Licensing, which provides a more detailed operational foundation for integrating spatial planning with licensing mechanisms. This regulation underscores that marine spatial planning is no longer treated as a standalone instrument, but rather as an integral component of a structured, risk-based licensing system. Consequently, any activity involving the use of marine space must first comply with spatial planning requirements as a primary prerequisite before obtaining formal licensing approval.[13]

However, the implementation of the Conformity of Marine Spatial Utilization Activities in practice continues to face several challenges, particularly in terms of coordination between the central government, through the Ministry of Marine Affairs and Fisheries of Indonesia and regional governments.[14] The dynamics of authority distribution in the coastal and marine sector have shifted significantly following the introduction of this policy.[15] Previously, governance authority in coastal and marine areas was largely delegated to regional governments under Law Number 23 of 2014 on Regional Government, which reassigned marine jurisdiction from regency/municipal governments (0–4 nautical miles) to provincial governments (0–12 nautical miles). This restructuring already reflected a degree of centralization at the provincial level.[16] With the enactment of Omnibus Law, a further shift has occurred through the reallocation of key licensing powers, particularly the Conformity of Marine Spatial Utilization Activities to the central government. This development has generated normative tensions. On the one hand, the principle of regional autonomy emphasizes the authority of local governments to manage their own affairs, including coastal resources closely tied to local livelihoods.[17] On the other hand, the centralization of strategic licensing authority under the Job Creation framework reflects a policy orientation toward regulatory streamlining and investment facilitation. Criticism of this regulatory shift highlights indications of re-centralization that may risk sidelining local knowledge systems and undermining the precautionary principle in environmental governance. In this context, the imbalance between centralized control and decentralized management raises concerns regarding the effectiveness,

[13] Nurainun Mangunsong and Surur Roiqoh, 'Repositioning DPD Oversight in Aceh's Licensing Qanun and Asymmetry', *Jurnal Hukum IUS QUIA IUSTUM*, 32.3 (2025), 681–708 https://doi.org/10.20885/iustum.vol32.iss3.art7

[14] Anis Mashdurohatun and Abdul Hanis Embong, 'Legal Protection of Coastal Community Land Tenure Rights', *Contrarius*, 1.2 (2025), 89–108 https://doi.org/10.53955/contrarius.v1i2.209

[15] Caitriona Carter and Françoise Vernier, 'Anticipating Climate Change Along the Land–Sea Continuum: Why Policy and Organisational Dynamics Matter', *Environmental Policy and Governance*, 36.1 (2026), 51–65 https://doi.org/10.1002/eet.70033

[16] Caizhi Sun, Zhennan Yang and Yudi Yang, 'Navigating the Tides of Change: The Local Dynamics of China's Marine Economic Policy', *Marine Policy*, 165 (2024), 106207 https://doi.org/10.1016/j.marpol.2024.106207

[17] Ignacio Toledo and others, 'Local Authorities or National Frameworks? A Global Review on Coastal Protection Policies', *Environmental Development*, 53 (2025), 101119 https://doi.org/10.1016/j.envdev.2024.101119

legitimacy, and sustainability of coastal and marine resource governance in Indonesia.[18]

Based on various studies and reports, it has been found that regional governments are often insufficiently involved in the technical assessment process of the Conformity of Marine Spatial Utilization Activities, despite possessing relevant authority, local knowledge, and context-specific data.[19] This situation has led to a dualism of authority and administrative uncertainty, particularly when overlaps occur between the Conformity of Marine Spatial Utilization Activities policies and regional spatial planning frameworks. Such conditions risk hindering both the efficiency of licensing processes and the implementation of development initiatives in coastal areas.[20] Moreover, the centralization of licensing authority through the Conformity of Marine Spatial Utilization Activities mechanism raises concerns regarding potential infringements on the principle of regional autonomy. Under the previous framework of coastal zoning, regional governments played a significant role in issuing location permits. However, their role has now been reduced, largely limited to administrative functions. This shift creates a fundamental dilemma in the application of asymmetric decentralization, as well as in the recognition of local wisdom, which has long been a key pillar in the sustainable management of coastal regions.[21]

These conditions ultimately give rise to the problem of legal inconsistency within the governance of coastal spatial licensing. Such inconsistency primarily stems from a lack of horizontal harmonization, where regulations at the same hierarchical level contain conflicting norms.[22] This phenomenon is evident in the overlapping licensing authorities across sectors, with each sectoral legal regime maintaining its own jurisdiction without sufficient integration. As a result, regulatory fragmentation occurs, creating confusion among policy implementers and generating legal uncertainty for both business actors and coastal

[18] Talib and others.
[19] I Wayan Gde Wiryawan and others, 'Integrated Spatial Governance for Sustainable Tourims in Bali', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 4.1 (2026) https://doi.org/https://doi.org/10.53955/jsderi.v4i1.135
[20] M. Adnan Lira, 'Disconnect Between Planning and Practice? A Critical Evaluation of Urban Spatial Policies in South Sulawesi', *Golden Ratio of Law and Social Policy Review*, 5.1 (2025), 69–77 https://doi.org/10.52970/grlspr.v5i1.1531
[21] Shinta Hadiyantina and others, 'Revisiting Local Government Authority in Energy Licensing: The Case of Gresik SEZ under Regional Autonomy', *Media Iuris*, 8.3 (2025), 513–28 https://doi.org/10.20473/mi.v8i3.73972
[22] M. Juschten, F. Reinwald and A. Jiricka-Pürrer, 'Challenge Accepted – Identifying Barriers and Facilitating Climate Change Adaptation in Spatial Development across Planning Boundaries, Sectors and Planning Levels', *Environmental Science & Policy*, 171 (2025), 104152 https://doi.org/10.1016/j.envsci.2025.104152

communities.[23] In addition, inconsistencies also emerge in a temporal dimension, where outdated regulations continue to be applied despite the introduction of newer legal frameworks. This situation produces ambiguity in the application of legal norms, as multiple legal references are simultaneously used in practice. The coexistence of old and new regulations highlights the weakness of synchronization and harmonization mechanisms within the legislative system, particularly in the context of risk-based licensing reforms.[24]

From an economic law perspective, these inconsistencies generate significant transaction costs, regulatory uncertainty, and inefficiencies in resource allocation. Investors are confronted with rising compliance costs due to overlapping permits, delays in licensing procedures, and legal ambiguity, all of which ultimately discourage investment.[25] Using a law and economics approach, potential state losses can be assessed through three main components. *First,* the loss of investment inflows resulting from regulatory uncertainty, which can be estimated by comparing actual investment realization with its potential level under a stable regulatory framework.[26] *Second,* the loss of state revenue, both tax and non-tax, due to delayed or cancelled projects.[27] *Third,* inefficiency costs arising from administrative duplication and conflicts in law enforcement.[28] For instance, if regulatory inconsistency leads to the delay or cancellation of coastal investment projects valued at approximately USD 100 million annually, and assuming a conservative tax ratio of 10 percent, the state stands to lose at least USD 10 million per year in direct fiscal revenue. This estimate does not yet account for multiplier effects, such as job losses, reduced local economic activity, and declining foreign exchange earnings. Furthermore, inefficiencies in spatial licensing may result in

[23] Eunice O. Olaniyi, Maria Claude Solarte-Vasquez and Tommi Inkinen, 'Smart Regulations in Maritime Governance: Efficacy, Gaps, and Stakeholder Perspectives', *Marine Pollution Bulletin*, 202 (2024), 116341 https://doi.org/10.1016/j.marpolbul.2024.116341

[24] Yunhao Yao and others, 'Fragmentation of China's Yacht Industry Policy: A Three-Dimensional Framework Based on Policy Purposes, Instruments, and Subjects', *SAGE Open*, 15.3 (2025) https://doi.org/10.1177/21582440251367277

[25] Siddartha Ramakanth Keshavadasu, 'Regulatory and Policy Risks: Analyzing the Uncertainties Related to Changes in Government Policies, Regulations, and Incentives Affecting Solar Power Project Development and Operations in Kenya', *Energy Policy*, 182 (2023), 113760 https://doi.org/10.1016/j.enpol.2023.113760

[26] Kulyanda K. Nurasheva and others, 'Capital Inflow and Investment Attractiveness of Central Asian Countries (on the Example of Kazakhstan)', *Regional Science Policy & Practice*, 16.9 (2024), 100039 https://doi.org/10.1016/j.rspp.2024.100039

[27] Mohd Yousuf Malik, Syed Hasan Jafar and Ananya Dixit, 'Efficiency Analysis and Macroeconomic Determinants of Non-Tax Revenues: Evidence from Special Category States of India', *The Indian Economic Journal*, 2025 https://doi.org/10.1177/00194662251330385

[28] Felipe S. M. Nunes and others, 'Lessons from the Historical Dynamics of Environmental Law Enforcement in the Brazilian Amazon', *Scientific Reports*, 14.1 (2024), 1828 https://doi.org/10.1038/s41598-024-52180-7

suboptimal land use, environmental degradation, and increased enforcement costs, thereby exacerbating long-term economic losses.[29]

As an example, this issue is evident in several areas along the northern coast of Java, including Tangerang Regency, Rembang Regency, and Semarang City. Despite experiencing high levels of coastal development activity, these regions face significant challenges related to cross-sectoral coordination and weak policy harmonization between central and regional governments. Spatial data conflicts between the Conformity of Marine Spatial Utilization Activities and provincial as well as regional spatial plans have resulted in administrative bottlenecks, particularly affecting the implementation of port development projects and coastal industrial zones. Furthermore, regulatory adjustments introduced through Government Regulation Number 28 of 2025 on Risk-Based Business Licensing, which aim to clarify basic licensing requirements within the risk-based business licensing system, have, in practice, added new layers of procedural complexity. In the absence of strong alignment among ministries, agencies, and regional governments, these reforms risk creating additional verification points and administrative queues on the ground, thereby undermining the very objective of streamlining the licensing process. [30]

In contrast, coastal spatial licensing governance in United Kingdom and China demonstrates a comparatively more integrated, consistent, and effective model in managing the utilization of coastal space. Both countries have developed regulatory frameworks that are better aligned across sectors, enabling more coherent control over coastal development while minimizing institutional fragmentation. In the United Kingdom, coastal permitting governance is characterized by a complex, decentralized, and multi-layered (polycentric) system involving multiple governmental bodies. This structure is designed to balance competing interests, such as economic development, fisheries, renewable energy, and environmental conservation, within a unified marine spatial planning framework. Despite its complexity, the system emphasizes coordination and functional integration among institutions, allowing different sectors to operate within a clearly defined and harmonized regulatory environment.[31] Meanwhile, China has developed a coastal governance framework predicated upon robust centralized planning, supported by comprehensive marine zoning instruments such as Marine Functional Zoning (MFZ). Through this approach, all marine territories are classified according to their primary functions, ranging from

[29] Geraldo Willson Fernandes and others, 'Shortcuts to Degradation: Environmental Consequences of Brazil's General Environmental Licensing Law', *Perspectives in Ecology and Conservation*, 24.1 (2026), 48–52 https://doi.org/10.1016/j.pecon.2025.10.004

[30] Jen-Han Yang, Yi Chang and Shih-Chun Hsiao, 'Finding Harmony in the Sea: Resolving Conflicts by Regional Marine Spatial Planning', *Ocean & Coastal Management*, 254 (2024), 107200 https://doi.org/10.1016/j.ocecoaman.2024.107200

[31] Lynne Falconer and others, 'Planning and Licensing for Marine Aquaculture', *Reviews in Aquaculture*, 15.4 (2023), 1374–1404 https://doi.org/10.1111/raq.12783

conservation and fisheries to transportation and industry ensuring that every spatial utilization permit rigorously adheres to the established zoning. The Chinese government also implements a system of 'sea area use rights,' which provides legal certainty while concurrently exerting stringent control over activities within coastal zones. Furthermore, the integration of terrestrial and marine planning is increasingly fortified through territorial spatial planning policies, which amalgamate various sectoral plans into a singular national framework. Employing a paradigm that is inherently centralized yet highly structured, China has successfully mitigated jurisdictional overlaps and enhanced supervisory efficacy, although challenges pertaining to transparency and public participation remain issues requiring continuous remediation.[32]

Both nations can serve as benchmarks for Indonesia in adopting policy reforms for coastal spatial permitting governance that are more integrated and sustainable. Nevertheless, this adoption process cannot be transposed directly without careful consideration of Indonesia's specific social, legal, and institutional characteristics. Reforms in coastal permitting governance must be adapted to the principles of a democratic rule of law, the diversity of local communities, and the recognition of indigenous peoples' rights. Therefore, it is imperative for Indonesia to synthesize the strengths of both models. Consequently, the ensuing reforms should not merely replicate the practices of foreign jurisdictions, but rather develop a governance framework that is contextual, inclusive, and capable of addressing the complex challenges inherent in Indonesia's coastal zones.[33]

Coastal governance and marine spatial planning have garnered increasing attention in recent years, particularly concerning institutional coordination and policy integration. Haas et al. (2022) note that inter-institutional collaboration plays a pivotal role in mitigating fragmentation within coastal governance.[34] Elrick-Barr and Smith (2022) further demonstrate that an integrated policy approach is imperative to address the complex issues that frequently arise in coastal regions.[35] In a similar vein, Zuercher et al. (2022) highlight the critical importance of coordination among actors for effective marine spatial planning.[36] Concurrently, Alexandra (2023) illustrates that water governance is shaped by interacting legal frameworks and institutional arrangements, which subsequently influence the

[32] Michele Ford, 'Organizing the Unorganizable: Unions, NGOs, and Indonesian Migrant Labour', *International Migration*, 42.5 (2004), 99–119 https://doi.org/10.1111/j.0020-7985.2004.00303.x
[33] Mashdurohatun and Abdul Hanis Embong.
[34] Bianca Haas and others, 'The Future of Ocean Governance', *Reviews in Fish Biology and Fisheries*, 32.1 (2022), 253–70 https://doi.org/10.1007/s11160-020-09631-x
[35] Carmen E. Elrick-Barr and Timothy F. Smith, 'Problem Framing for Australian Coastal Management', *Environmental Science & Policy*, 127 (2022), 218–27 https://doi.org/10.1016/j.envsci.2021.10.031
[36] Rachel Zuercher and others, 'Narrowing the Gap between Marine Spatial Planning Aspirations and Realities', ed. by Katherine Yates, *ICES Journal of Marine Science*, 79.3 (2022), 600–608 https://doi.org/10.1093/icesjms/fsac009

practical application of policies.[37] Chaffin et al. (2024) emphasize that environmental governance systems increasingly rely on multilevel actor networks, wherein the efficacy of institutional arrangements is inextricably linked to their capacity to coordinate actions, disseminate knowledge, and collectively respond to ongoing social and environmental transformations.[38] Nevertheless, these studies have yet to specifically investigate how regulatory inconsistencies manifest within the context of coastal spatial permitting, particularly concerning overlapping legal frameworks and institutional practices.

Although various studies have emphasized the importance of policy integration and institutional coordination in coastal governance, there remain limitations in understanding how regulatory inconsistencies concretely emerge in spatial licensing practices. In particular, studies that explicitly link the design of legal frameworks, institutional fragmentation, and licensing implementation within empirical cases are still relatively scarce. As a result, a significant research gap persists in explaining how interactions among different legal regimes generate regulatory inconsistencies in the management of coastal space. Accordingly, this study aims to *first*, analyse the dynamics of regulatory inconsistency in coastal spatial licensing in Indonesia, using the case of sea barrier (coastal fence) development; *second*, examine regulatory frameworks in other countries as a comparative perspective; and *third*, formulate a model of coastal permitting governance that is more integrated, consistent, and adaptive in responding to the complexities of marine spatial management, while ensuring legal certainty and sustainability.[39]

Research Method

This study uses a normative legal research method, incorporating statutory, comparative, and case study approaches.[40] The statutory approach is used to examine inconsistencies among regulatory frameworks governing coastal spatial permitting, particularly those related to overlapping norms, jurisdictional conflicts, and regulatory ambiguities. The comparative approach involves analyzing similar regulatory frameworks in other countries to obtain alternative perspectives for regulatory improvement. Meanwhile, the case study approach is applied to assess

[37] Jason Alexandra, 'Climate Adaptation Options for the 2026 Basin Plan: Opportunities for Managing Climate Risk', *Australasian Journal of Water Resources*, 27.2 (2023), 257–70 https://doi.org/10.1080/13241583.2022.2133643

[38] Brian C. Chaffin, Theresa M. Floyd and Peter Anzollitto, 'Environmental Governance Networks and Geography: A Research Agenda at the Confluence of Critical Concepts for Navigating Rapid Environmental Change', *Annals of the American Association of Geographers*, 114.8 (2024), 1718–30 https://doi.org/10.1080/24694452.2024.2343493

[39] Aris Irawan and others, 'Criminal Penalties for Foreigners Engaged in Illegal Fishing Indonesia's ZEE Impact SDGs', *Journal of Sustainable Development and Regulatory Issues (JSDERI)*, 3.1 (2025), 95–120 https://doi.org/10.53955/jsderi.v3i1.42

[40] Anila Robbani, Raffy Arnanda Faturrohman and Ahmad Hananul Amin, 'Optimization of Income Tax Revenue in Land and Building Rights Transfer Transactions', *Journal of Justice Dialectical*, 2.1 (2024), 28–42 https://doi.org/10.70720/jjd.v2i2.38

the practical implementation of these regulations, thereby identifying gaps between legal norms and their application in practice. The analysis is based on primary legal materials, including statutory instruments and relevant academic literature. The case study in this research focuses on permitting governance in the North Coast of Java, which serves to illustrate how licensing mechanisms operate in practice as well as the roles of the stakeholders involved. This case also highlights the discrepancies between established legal norms and the actual practice of coastal permitting governance.[41]

Results and Discussion

Regulatory Inconsistencies in Coastal Spatial Permitting in Indonesia

Indonesia's coastal spatial permitting system is governed by a complex array of legal frameworks that regulate the utilization of marine and coastal territories.[42] This system is implemented through a combination of national laws and regional zoning plans, which collectively determine the allocation and utilization of coastal zones.[43] In its development, following the enactment of Law Number 6 of 2023 on Job Creation, along with its implementing regulations, the paradigm of marine spatial utilization licensing has undergone significant transformation, Nevertheless, its implementation has not been fully aligned with regional regulations or spatial planning documents formulated by local governments. Many regions have yet to revise their Regional Spatial Plans to accommodate the Coastal and Small Islands Zoning Plans, even though these documents serve as key references in the issuance of the Conformity of Marine Spatial Utilization Activities approvals by the central government. This inconsistency has resulted in overlapping marine spatial designations and has triggered cross-sectoral conflicts, particularly between conservation and fisheries activities.[44]

Referring to these dynamics, particularly concerning the implementation of the Conformity of Marine Spatial Utilization Activities, the multiplicity of authorities governing coastal spatial permitting engenders issues of legal uncertainty precipitated by three primary factors are ambiguity, inconsistency, and regulatory

[41] Yahya Ahmad Zein, Aditia Syaprillah and Rafiq Idris, 'The Regulations for Management of Coastal Natural Resource Conflicts in Indonesia-Malaysia Border', *BESTUUR*, 11.2 (2023), 192 https://doi.org/10.20961/bestuur.v11i2.69205

[42] Martiwi Diah Setiawati and others, 'Application of Coastal Hazard Index to Advance Nature Based Protection for Coastal Communities in the Small Islands', *Discover Applied Sciences*, 6.9 (2024), 462 https://doi.org/10.1007/s42452-024-06164-x

[43] Mulyadi Alwi, Bachtiar W. Mutaqin and Muh Aris Marfai, 'Coastal Management Based on Multi-Hazard Assessment in the Very Small Islands of Karimunjawa, Indonesia', *Anthropocene Coasts*, 8.1 (2025), 5 https://doi.org/10.1007/s44218-025-00069-x

[44] Charlene Sharee-Ann Charles and Yi Chang, 'Cross-National Analysis of Marine Spatial Planning (MSP) Frameworks: Collaboration, Conservation, and the Role of NGOs in Australia, Germany, Seychelles, and England', *Sustainability*, 17.18 (2025), 8306 https://doi.org/10.3390/su17188306

incompleteness.[45] Several factors contribute to this condition. *First*, the administrative bifurcation of the spatial boundary between terrestrial and marine domains paradoxically creates institutional voids and jurisdictional overlaps. This condition precipitates a scenario wherein disparate legal frameworks and institutions operate in parallel, devoid of adequate coordination. Consequently, decision-making processes frequently become discretionary and opportunistic, contingent upon whichever legal regime is most advantageous for specific actors.[46] This phenomenon is indicative of legal pluralism, wherein stakeholders may be subject to divergent regulations, thereby harbouring the potential to incite conflicts, foster inequities, and erode trust in the regulatory system. To ameliorate these issues, the governance of terrestrial and marine territories must be conceptualized as an interconnected entity within a spatial and legal continuum. This paradigm can serve as the foundational basis for regulatory harmonization through an integrated legal model, such as an omnibus law, to cultivate consistency and legal certainty in coastal zone management.[47] *Second*, contemporary coastal governance fundamentally constitutes a combination of terrestrial land-use planning systems and marine spatial planning, which currently operate in isolation. This fragmentation precipitates policy overlaps, alongside disparities in spatial allocation and the distribution of rights, restrictions, and responsibilities among stakeholders.[48] Therefore, it is imperative to integrate the spatial legal and policy frameworks to comprehensively unify these two systems. This integration must account for all values, interests, and claims of stakeholders across both terrestrial and marine domains, thereby actualizing a more coherent, inclusive, and sustainable coastal governance framework.[49]

From a legal structural perspective, regulatory inconsistency may arise from three primary sources. *First*, horizontal disharmony occurs when regulations at the same hierarchical level contain conflicting norms, such as overlapping licensing authorities among sectoral legal regimes. Horizontal inconsistencies across ministries and sectoral agencies also pose a serious challenge in coastal spatial permitting governance. Each institution tends to operate with its own technical

[45] Hendra Yournawan and Syafri Hariansah, 'Legal Uncertainty in Coastal Area Regulation: Its Impact on Economic Rights of Tourism Actors in Bangka Belitung', *Journal of Law, Politic and Humanities*, 5.5 (2025), 3464–72 https://doi.org/10.38035/jlph.v5i5.1858

[46] Po-Yi Hung and Yu-Hsiu Lien, 'Maritime Borders: A Reconsideration of State Power and Territorialities over the Ocean', *Progress in Human Geography*, 46.3 (2022), 870–89 https://doi.org/10.1177/03091325221074698

[47] Thaddeus Arkum Aasoglenang, 'Legal Pluralism and Indigenous Conflict Adjudicatory Mechanisms: The Theory and Practice in North-Western Ghana', *SN Social Sciences*, 3.10 (2023), 183 https://doi.org/10.1007/s43545-023-00764-x

[48] Alberto Innocenti and Francesco Musco, 'Land–Sea Interactions: A Spatial Planning Perspective', *Sustainability*, 15.12 (2023), 9446 https://doi.org/10.3390/su15129446

[49] Walter Timo de Vries and Sukmo Pinuji, 'Balancing Between Land and Sea Rights—An Analysis of the "Pagar Laut" (Sea Fences) in Tangerang, Indonesia', *Land*, 14.7 (2025), 1382 https://doi.org/10.3390/land14071382

regulations and sectoral approaches, which are not always harmoniously integrated. As a result, overlapping norms and procedures emerge, complicating the licensing process and creating legal uncertainty for stakeholders. For instance, marine spatial planning under the authority of the Ministry of Marine Affairs and Fisheries of Indonesia is often not fully synchronized with land spatial planning policies managed by the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency.[50] This lack of alignment reflects weak cross-sectoral coordination in formulating spatial policies that should, in principle, be integrated from land to sea. In practice, such regulatory disharmony has significant administrative implications, particularly in strategic activities such as coastal reclamation. Even when a project has been deemed consistent with coastal and marine zoning plans, business actors are still required to obtain location permits from the Ministry of Agrarian Affairs and Spatial Planning/National Land Agency, thereby extending bureaucratic procedures. This condition inevitably slows down the investment process. [51]

Second, vertical inconsistency arises when lower-level regulations conflict with higher legal norms, thereby violating the principle of normative hierarchy as articulated in Hans Kelsen's theory. In the context of coastal spatial governance, such vertical inconsistency is reflected in the dualism of authority between central and regional governments. Following the enactment of omnibus law, licensing authority has been increasingly centralized through the Conformity of Marine Spatial Utilization Activities system. However, many regional governments have not yet adjusted their spatial planning documents, particularly in integrating the Coastal and Small Islands Zoning Plan into the Regional Spatial Plan. This lack of synchronization has led to overlapping designations of marine spatial zones and triggered sectoral conflicts among conservation, fisheries, tourism, and marine industry interests. Furthermore, numerous regional regulations, both in the form of regional bylaws and governor regulations, remain misaligned with the latest national policies, including Government Regulation Number 21 of 2021 on Spatial Planning and Ministerial Regulation of Marine Affairs and Fisheries Number 28 of 2021 on Marine Spatial Planning. Therefore, a policy dualism emerges at the regional level, where certain local regulations continue to govern licensing authorities that have normatively been reassigned to the central government. This situation results in procedural inconsistencies and increases the risk of rejection or

[50] Xidi Chen, Weiming Yang and Yu Liu, 'Recent Developments in China's Coastal Zone Management Legislation: An Appraisal', *Coastal Management*, 52.6 (2024), 315–39 https://doi.org/10.1080/08920753.2024.2425473

[51] Dian Prima Safitri and others, 'Analysing Climate Change in the Coastal Zone: The Case of Kepulauan Riau, Indonesia', *IOP Conference Series: Earth and Environmental Science*, 1186.1 (2023), 012002 https://doi.org/10.1088/1755-1315/1186/1/012002

delays in the issuance of the Conformity of Marine Spatial Utilization Activities approvals.[52]

Third, temporal inconsistency arises when outdated regulations continue to be applied despite subsequent legal reforms, thereby creating regulatory ambiguity. In the context of coastal spatial governance in Indonesia, this phenomenon is reflected in the limited alignment of the Coastal and Small Islands Zoning Plan with the risk-based licensing system implemented through the OSS-RBA. Originally designed as a zoning-based spatial planning instrument, the Coastal and Small Islands Zoning Plan now operates alongside a new framework that emphasizes integrated and risk-based licensing mechanisms. This misalignment illustrates a form of regulatory lag, where normative reforms are not followed by the harmonization of pre-existing legal instruments. Such conditions give rise to legal dualism, which directly contributes to ambiguity in implementation at the regional level. On the one hand, regional governments continue to rely on the Coastal and Small Islands Zoning Plan as the primary basis for controlling marine spatial utilization. On the other hand, the central government, through the OSS-RBA mechanism and the Conformity of Marine Spatial Utilization Activities policy, imposes a more centralized and standardized licensing framework. This dualism not only creates legal uncertainty for business actors but also undermines the effectiveness of coastal governance due to overlapping authorities and confusion over the applicable legal regime. From a theoretical perspective, this phenomenon can be understood as a failure of the legal system to maintain normative coherence and adaptability, as articulated by Hans Kelsen. When new norms do not systematically replace or harmonize with existing ones, the result is not a progressive legal transition but rather regulatory fragmentation. Therefore, temporal inconsistency in coastal spatial licensing should not be viewed merely as a technical issue, but as a structural problem that necessitates a comprehensive and integrated reconstruction of the regulatory framework.[53]

Table 1. Regulatory Framework of Coastal Spatial Permitting in Indonesia

Regulation	Subtance	Institutional Authority	Inconsistency Issues
Law Number 23 of 2014 on Regional Government	Decentralization of marine management authority (0–12 nautical miles under provincial jurisdiction)	Regional Government (Province)	Conflict with re-centralization policies (vertical & horizontal inconsistency)

[52] Sukardi Sukardi and Dodi Jaya Wardana, 'Does the Government Have the Authority to Annul Regional Regulations?', *Legality : Jurnal Ilmiah Hukum*, 32.2 (2024), 263–76 https://doi.org/10.22219/ljih.v32i2.35027

[53] Yuxin Zhang and others, 'Coastline Protection and Restoration: A Comprehensive Review of China's Developmental Trajectory', *Ocean & Coastal Management*, 251 (2024), 107094 https://doi.org/10.1016/j.ocecoaman.2024.107094

Law Number 6 of 2023 on Job Creation	Licensing reform through the Conformity of Marine Spatial Utilization Activities and integration into the OSS-RBA system	Central Government and Ministry of Marine Affairs and Fisheries of Indonesia	Potential overlap of authority and centralization of licensing (vertical inconsistency)
Government Regulation Number 28 of 2025 on Risk-Based Business Licensing	Technical implementation of OSS-RBA and risk-based licensing	Central Government	Disharmony with sectoral and regional regulations (horizontal inconsistency)
Regional Regulations on the Coastal and Small Islands Zoning Plan	Coastal spatial zoning	Provincial Government	Lack of synchronization with central policies (horizontal and temporal inconsistency)

Source: Processed by the author

These inconsistencies have directly affected the implementation of licensing processes in coastal areas along the North Coast of Java, particularly in Tangerang Regency, Rembang Regency, and Semarang City. These regions exhibit complex dynamics in terms of legal-formal aspects, institutional coordination, technical capacity, and alignment with regional marine spatial planning frameworks. According to data from the Ministry of Marine Affairs and Fisheries of Indonesia (2024), Semarang City and Rembang Regency are among the five regions with the highest number of the Conformity of Marine Spatial Utilization Activities applications along the Pantura. The dominant activities include port reclamation, integrated fisheries industry development, floating net cage aquaculture, and offshore coal-fired power plant development. Despite this high level of activity, the Conformity of Marine Spatial Utilization Activities application process in many regions continues to face administrative obstacles, such as incomplete environmental impact assessment documents and inconsistencies with regional marine zoning maps. From an institutional perspective, there are still significant capacity gaps, as not all regions possess technical units or human resources with sufficient expertise to integrate the Conformity of Marine Spatial Utilization Activities within the OSS-RBA system. This limitation further constrains the effectiveness of licensing governance and exacerbates delays in coastal development projects.[54]

Beyond the Pantura coastal areas in Central Java, similar issues also arise along the northern coast of Tangerang Regency, which faces multiple challenges in the licensing process for marine spatial utilization. These problems are particularly evident in the sea barrier (coastal fence) development project, which intersects with reclamation plans under the broader development of the Tangerang International City area. This project is designed as an integrated coastal development consisting of seven artificial islands to be constructed in offshore waters stretching from Kosambi to Kronjo. The TIC development itself is planned to begin from the Pantai

[54] Ida Bagus Indra Wiratma Pidada, I. Made Arjaya and I. Ketut Kasta Arya Wijaya, 'The Impact of Environmental Permitting with a Risk-Based Approach on Investments Based on the Job Creation Law', in *Proceedings of the International Conference on "Changing of Law: Business Law, Local Wisdom and Tourism Industry" (ICCLB 2023)*, 2023, pp. 850–68 https://doi.org/10.2991/978-2-38476-180-7_91

Indah Kapuk area, which had previously been developed by the Agung Sedayu Group. In its implementation, the Tangerang Regency Government appointed PT Tangerang International City, a subsidiary affiliated with the Salim Group, as the primary developer of the project. According to data from the Geographic Information System (GIS) of Banten Province's spatial planning, the developer claims that the reclamation plan had already obtained approval since 2011, allegedly linked to the designation under the Tangerang Regency Spatial Plan for the period 2011–2031. This claim further examples the complexity of regulatory layering, where older spatial planning approvals are invoked within a significantly transformed licensing regime, thereby contributing to legal ambiguity and administrative disputes in coastal governance.[55]

However, the evolving regulatory landscape, particularly following the shift toward risk-based licensing has created uncertainty regarding the validity of previously issued permits. On the one hand, the developer has reported that approximately 15 of its subsidiaries are currently applying for reclamation permits covering an area of around 4,500 hectares. On the other hand, parts of the project, spanning Kosambi, Teluk Naga, Pakuhaji, and Sukadiri, with a total area of approximately 1,000 hectares have already entered the development phase. This situation reflects a classic dilemma in coastal permitting governance, namely the tension between long-term investment continuity and the dynamics of regulatory change. The Agung Sedayu Group, for instance, has emphasized the importance of policy consistency and continuity, given that reclamation projects represent large-scale investments with long-term horizons. Regulatory changes that are not properly synchronized or lack transitional mechanisms may generate legal uncertainty, which in turn can delay project realization and reduce investor confidence. Moreover, this case illustrates a conflict of authority between central vertical institutions, particularly the Ministry of Marine Affairs and Fisheries of Indonesia, and regional marine agencies, especially during the stages of technical consultation and spatial conformity assessment. This institutional tension has contributed to delays in the approval of reclamation project locations, particularly in strategic areas such as commercial ports and projects classified as National Strategic Projects.[56]

From a social perspective, the level of understanding among coastal communities regarding the substance and objectives of the Conformity of Marine Spatial Utilization Activities remains relatively low. As a result, resistance has emerged in several areas toward marine spatial development projects, driven by concerns over the potential loss of access for traditional fishers and broader

[55] Justyna Breś, 'Coordination of Planning Regulations at the Edge of Water and Land. Conflicts within Planning Policy for Urban Blue Space in Small and Medium-Sized Polish Port Cities and Possible Directions of Change', *Marine Policy*, 173 (2025), 106568 https://doi.org/10.1016/j.marpol.2024.106568

[56] Nan Wang and others, 'Transitions and Suggestions for China's Coastal Port Reclamation Policies', *Ocean & Coastal Management*, 236 (2023), 106532 https://doi.org/10.1016/j.ocecoaman.2023.106532

environmental changes in coastal ecosystems. This condition underscores the urgency of conducting comprehensive public outreach and ensuring meaningful community participation prior to the issuance of the Conformity of Marine Spatial Utilization Activities approvals. Such measures are essential to balance development objectives with social acceptance, while also safeguarding the rights and livelihoods of coastal communities and ensuring the long-term sustainability of marine spatial governance. In this context, there are at least three primary dimensions of ecological justice relevant for analyzing this issue: distributional justice, procedural justice, and recognition justice.[57] *First,* from the perspective of distributional justice, regulatory inconsistency engenders a disproportionate distribution of environmental benefits and burdens. Overlapping and asynchronous permitting systems create avenues for the exploitation of coastal resources by actors possessing economic and political leverage, whereas coastal communities invariably endure the adverse consequences, including environmental degradation, pollution, and the forfeiture of access to natural resources.[58] The case of the 'sea fence' construction in Tangerang Regency, for instance, exemplifies how uncoordinated permitting policies can precipitate the deterioration of coastal ecosystems without being counterbalanced by commensurate protection for the affected communities. In this regard, the state fails to execute its redistributive function to ensure that the utilization of coastal space yields equitable benefits for all stakeholders.[59]

Second, from the perspective of procedural justice, significant deficiencies are evident within the permitting decision-making process. Although the OSS-RBA system was designed to enhance efficiency and transparency, in practice, this process tends to adopt a top-down approach, lacking substantial involvement from both regional governments and local communities. The paucity of public participation in the verification and permit-issuance processes, including the issuance of the Conformity of Marine Spatial Utilization Activities, indicates that the procedural mechanisms are not yet entirely inclusive. Conversely, ecological justice necessitates meaningful participation, wherein all affected parties are afforded equitable opportunities to articulate their aspirations and objections. When this process is marginalized, the resultant decisions are potentially biased toward specific interests, thereby neglecting environmental sustainability.[60]

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[57] Nynke van Uffelen, 'Revisiting Recognition in Energy Justice', *Energy Research & Social Science*, 92 (2022), 102764 https://doi.org/10.1016/j.erss.2022.102764

[58] Ulf Liebe and others, 'One Justice for All? Social Dilemmas, Environmental Risks and Different Notions of Distributive Justice', *Games*, 15.4 (2024), 25 https://doi.org/10.3390/g15040025

[59] Alejandro Vega-Muñoz and others, 'Scientific Mapping of Coastal Governance: Global Benchmarks and Trends', *Journal of Marine Science and Engineering*, 10.6 (2022), 751 https://doi.org/10.3390/jmse10060751

[60] Medareshaw Tafesse Melkamu and Woldeab Teshome, 'Public Trust in the Police: Investigating the Influence of Police Performance, Procedural Fairness, and Police-Community Relations in Addis Ababa, Ethiopia', *Cogent Social Sciences*, 9.1 (2023) https://doi.org/10.1080/23311886.2023.2199559

Third, within the dimension of recognition justice, regulatory inconsistency also reflects a fundamental failure to acknowledge the existence and rights of coastal communities, encompassing indigenous peoples and traditional fishers.[61] Unintegrated legal pluralism frequently results in the marginalization of customary laws and local practices by predominantly centralized formal legal regimes.[62] In numerous instances, local communities are not recognized as legal subjects possessing inherent rights to their living spaces; rather, they are merely positioned as objects of development. This paradigm directly contradicts the tenets of ecological justice, which emphasize the imperative of recognizing local identities, values, and knowledge systems in natural resource management. Furthermore, inconsistencies between central and regional regulations, as well as intersectoral discordance, engender what may be conceptualized as structural ecological injustice. This injustice transpires not merely at the individual or communal level but is inextricably embedded within institutional designs and the legal framework itself. Ultimately, regulatory fragmentation and the dualism of authority exacerbate disparities in resource access while concurrently eroding accountability mechanisms in coastal environmental management.[63]

Based on these premises, the permitting system must fundamentally function as an effective regulatory instrument for diverse activities within coastal zones, ensuring that spatial utilization is not solely driven by economic imperatives, but simultaneously respects the rights of local communities, including indigenous peoples and safeguards the ecological sustainability of the region. Ideally, permitting should not be construed merely as an administrative formality; rather, it must serve as a rigorous selection mechanism predicated upon the precautionary principle, environmental carrying capacity, and ecological justice. Consequently, every issued permit must genuinely reflect an equilibrium between resource utilization and environmental protection, thereby minimizing the potential for social conflicts and the degradation of coastal ecosystems. Therefore, fundamental reform in the governance of coastal permitting is imperative, with a distinct emphasis on cross-sectoral regulatory integration.[64]

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[61] Annie Lalancette and Monica Mulrennan, 'Competing Voices: Indigenous Rights in the Shadow of Conventional Fisheries Management in the Tropical Rock Lobster Fishery in Torres Strait, Australia', *Maritime Studies*, 21.2 (2022), 255–77 https://doi.org/10.1007/s40152-022-00263-4

[62] Faijul Islam, 'Legal Pluralism in South Asia: The Sustainable Role of Customary Law in Modern Legal Systems', *Journal of Legal Research and Polity*, 2.2 (2025), 67–88 https://doi.org/10.64322/JLRP.2025.2206

[63] Cong Zhang and others, 'Regional Competition, Rural Pollution Haven and Environmental Injustice in China', *Ecological Economics*, 204 (2023), 107669 https://doi.org/10.1016/j.ecolecon.2022.107669

[64] Juul E. H. Kusters, Ferry M. G. van Kann and Christian Zuidema, 'Spatial Conflict Resolution in Marine Spatial Plans and Permitting Procedures for Offshore Wind Energy: An Analysis of Measures Adopted in Denmark, England and the Netherlands', *Frontiers in Marine Science*, 12 (2025) https://doi.org/10.3389/fmars.2025.1468734

Regulatory Dynamics of Coastal Spatial Permitting Governance from an International Perspective

Coastal zone management constitutes an increasingly complex global issue as pressures from human activities, resource exploitation, and the impacts of climate change continue to intensify.[65] The cross-sectoral and trans-jurisdictional characteristics of coastal areas necessitate that governance cannot be addressed through isolated sectoral approaches.[66] Conversely, a multidisciplinary approach is required to simultaneously integrate environmental, economic, social, and legal dimensions. In this context, coastal complexity lies not only in the diversity of involved actors but also in the dynamic interactions between often conflicting interests, thereby demanding a governance framework that is both adaptive and responsive to change.[67] In international practice, marine spatial planning (MSP) has emerged as a primary instrument to navigate such complexities.[68] Nevertheless, its implementation depends not solely on regulatory design, but also on the capacity to foster inter-institutional coordination and the active engagement of stakeholders.[69] Consequently, modern coastal governance mandates a collaborative governance approach capable of accommodating various interests while adaptively responding to dynamic threats. This approach underscores the imperative of cross-sectoral policy integration and transparency in decision-making processes to cultivate inclusive and sustainable governance.[70]

As an example, the United Kingdom treats its marine and coastal environment as a vital national economic asset. Consequently, the economic use of the marine environment is a key consideration in its marine policy and spatial planning framework.[71] Within this context, marine industrial activities, such as aggregate

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[65] Wen Wu and Liu Wan, 'Coastal Ecological and Environmental Management under Multiple Anthropogenic Pressures', in *Current Trends in Estuarine and Coastal Dynamics* (Elsevier, 2024), pp. 385–415 https://doi.org/10.1016/B978-0-443-21728-9.00013-2

[66] Tao Wu and Juliana Barrett, 'Coastal Land Use Management Methodologies under Pressure from Climate Change and Population Growth', *Environmental Management*, 70.5 (2022), 827–39 https://doi.org/10.1007/s00267-022-01705-9

[67] Mosa Tania Alim Shampa and others, 'A Comprehensive Review on Sustainable Coastal Zone Management in Bangladesh: Present Status and the Way Forward', *Heliyon*, 9.8 (2023), e18190 https://doi.org/10.1016/j.heliyon.2023.e18190

[68] Julie M. Reimer and others, 'The Marine Spatial Planning Index: A Tool to Guide and Assess Marine Spatial Planning', *Npj Ocean Sustainability*, 2.1 (2023), 15 https://doi.org/10.1038/s44183-023-00022-w

[69] Stephen D. Holness and others, 'Using Systematic Conservation Planning to Align Priority Areas for Biodiversity and Nature-Based Activities in Marine Spatial Planning: A Real-World Application in Contested Marine Space', *Biological Conservation*, 271 (2022), 109574 https://doi.org/10.1016/j.biocon.2022.109574

[70] Margarita Stancheva and others, 'Supporting Multi-Use of the Sea with Maritime Spatial Planning.The Case of a Multi-Use Opportunity Development - Bulgaria, Black Sea', *Marine Policy*, 136 (2022), 104927 https://doi.org/10.1016/j.marpol.2021.104927

[71] Emily Stebbings and others, 'The Marine Economy of the United Kingdom', *Marine Policy*, 116 (2020), 103905 https://doi.org/10.1016/j.marpol.2020.103905

dredging, are strictly regulated through a comprehensive system of marine licensing and marine spatial planning. Any activity that may affect Marine Protected Areas (MPAs) is required to undergo rigorous environmental assessment procedures. In particular, applications for activities within designated conservation areas are subject to either a Habitat Regulations Assessment (HRA) or a Marine Conservation Zone (MCZ) Assessment. These mechanisms are designed to ensure that any potential impacts on protected areas are properly identified, avoided, or adequately mitigated. The system also applies the precautionary principle, meaning that activities with potential risks to the ecological integrity of MPAs can only be approved if they meet strict mitigation standards established under the HRA or MCZ frameworks. In this way, the UK's licensing regime functions not merely as an administrative procedure, but as a regulatory control mechanism ensuring that marine resource utilization remains within ecological sustainability limits.[72]

In addition to United Kingdom, China has demonstrated significant progress in establishing an integrated coastal zone management framework supported by comprehensive regulatory backing.[73] Marine spatial management in China is predicated upon several key legal instruments, such as the Marine Environment Protection Law, the Law on the Administration of the Use of Sea Areas, and the Environmental Impact Assessment Law, which collectively constitute a system for controlling marine spatial utilization based on zoning and environmental protection. A pivotal instrument within this system is Marine Functional Zoning (MFZ), a marine spatial planning framework that categorizes coastal territories into specific functional zones, such as conservation, fisheries, industry, and tourism. The MFZ serves as the fundamental basis for issuing marine space utilization permits, ensuring that every activity strictly adheres to the nationally established spatial designations.[74]

In relation to the previous discussion regarding coastal permitting governance reform in Indonesia, China's experience demonstrates the importance of robust integration between spatial planning and permitting systems. Unlike the conditions in Indonesia, which still face inconsistencies among the Coastal and Small Islands Zoning Plan, Regional Spatial Plans, and other sectoral policies, China is relatively capable of creating alignment between zoning and permit

[72] Jennifer Elston, Hugo Pinto and Carla Nogueira, 'Tides of Change for a Sustainable Blue Economy: A Systematic Literature Review of Innovation in Maritime Activities', *Sustainability*, 16.24 (2024), 11141 https://doi.org/10.3390/su162411141

[73] Yuxin Zhang and others.

[74] Yuncheng Deng and Yubing Shi, 'Recent Developments of China's Institutional Reform for Ocean Management: An Appraisal', *Coastal Management*, 51.2 (2023), 91–114 https://doi.org/10.1080/08920753.2023.2176277

issuance through its system of 'sea area use rights'.[75] This provides higher legal certainty and reduces potential conflicts over spatial utilization. Nevertheless, China's predominantly centralized and top-down approach also reveals limitations, particularly concerning public participation and the recognition of local community interests.[76] From an ecological justice perspective, the Chinese model provides an essential lesson: the success of coastal governance is determined not only by regulatory strength and institutional coordination efficacy but also by the extent to which the system accommodates the dimensions of procedural and recognition justice. Therefore, in the context of coastal permitting reform in Indonesia, the integration between the zoning system and permitting needs to be fortified as seen in Chinese practice, yet it must remain combined with participatory and inclusive approaches. Consequently, governance reform will not only generate legal certainty and administrative efficiency but also actualize coastal zone management that is sustainable and ecologically just.[77]

Regulatory Idealization of Coastal Spatial Permitting toward Sustainable Coastal Governance

Governance reform in permitting through the Conformity of Marine Spatial Utilization Activities instrument is part of the risk-based permitting system transformation introduced following the enactment of Law Number 6 of 2023.[78] In the context of coastal space, the Conformity of Marine Spatial Utilization Activities functions as the primary instrument to ensure that every marine spatial utilization activity complies with the established zoning plans, specifically the Coastal and Small Islands Zoning Plan.[79] Nevertheless, in practice, the implementation of the Conformity of Marine Spatial Utilization Activities still faces various challenges, such as the lack of synchronization between central and regional policies, limited integration of spatial data, and weak intersectoral coordination. This condition indicates that permitting reform has not yet been fully accompanied by substantial

[75] Muhammad Akib and others, 'Constitutionalism in Land Acquisition for Public Interest: A Comparison Between Indonesia, Russia and Several Other Countries.', *Russian Law Journal*, 11.5s (2023), 249–55 https://doi.org/10.52783/rlj.v11i5s.932

[76] Xinrui Zhang and Jiashu Zhang, 'The Application of Restorative Justice in China's Environmental Crime: An Evolutionary Game Perspective', *Crime, Law and Social Change*, 82.3 (2024), 717–50 https://doi.org/10.1007/s10611-024-10165-7

[77] Yansui Liu and Yang Zhou, 'Territory Spatial Planning and National Governance System in China', *Land Use Policy*, 102.January (2021), 105288 https://doi.org/10.1016/j.landusepol.2021.105288

[78] Joseph David Blacklock, Jeanette Baird and Bjørn Stensaker, 'Evolutionary Stages in Risk-Based Quality Regulation in Australian Higher Education 2011–2024', *Policy Reviews in Higher Education*, 9.2 (2025), 240–62 https://doi.org/10.1080/23322969.2025.2493115

[79] Sílvia Gómez, Arnau Carreño and Josep Lloret, 'Cultural Heritage and Environmental Ethical Values in Governance Models: Conflicts between Recreational Fisheries and Other Maritime Activities in Mediterranean Marine Protected Areas', *Marine Policy*, 129 (2021), 104529 https://doi.org/10.1016/j.marpol.2021.104529

governance reform, thereby potentially engendering legal uncertainty and conflicts over spatial utilization.[80]

Marine governance policy fundamentally constitutes an integrated policy framework within the context of national development that simultaneously links economic, social, and environmental dimensions.[81] From a theoretical perspective, a governance system can be understood as a complex adaptive system, wherein various actors, institutions, legal norms, and interests interact dynamically and non-linearly. This complexity intensifies in the context of coastal zone management, given that this area sits at the intersection of terrestrial and marine spaces and involves various strategic sectors such as fisheries, tourism, industry, and conservation. In such conditions, the permitting system can no longer be positioned merely as an administrative instrument, but rather as a strategic mechanism for distributing access, benefits, and responsibilities regarding coastal resource utilization.[82] However, as previously outlined, regulatory inconsistency, characterized by fragmented norms, a dualism of authority, and weak institutional coordination has caused the permitting system to lose its primary function as a tool for control and environmental protection. From an ecological justice perspective, this condition reflects a systemic failure that engenders inequitable distribution of benefits, the exclusion of participation, and the marginalization of coastal communities.[83]

Therefore, the reform of the Conformity of Marine Spatial Utilization Activities permitting governance must be directed toward strengthening the integration of the permitting system with comprehensive coastal spatial planning. This integration is essential to eliminate the dualism of authority and to create legal certainty within the permitting process, ensuring that policy overlaps, which potentially incite spatial conflicts and uncertainty for stakeholders no longer occur. This reform encompasses several key aspects as follows,[84] *first*, the synchronization of the permitting system with the Region Spatial and the Coastal and Small Islands Zoning Plan to prevent overlaps in the designation of spatial utilization zones.

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[80] Anthony Boxshall, 'Perspectives on Building Climate Resilience via Marine and Coastal Management from the Governance Frontline in Victoria, Australia', *Ocean & Coastal Management*, 228 (2022), 106291 https://doi.org/10.1016/j.ocecoaman.2022.106291

[81] Jordan Gacutan and others, 'Marine Spatial Planning and Ocean Accounting: Synergistic Tools Enhancing Integration in Ocean Governance', *Marine Policy*, 136 (2022), 104936 https://doi.org/10.1016/j.marpol.2021.104936

[82] Michael Elliott, Ángel Borja and Roland Cormier, 'Managing Marine Resources Sustainably – Ecological, Societal and Governance Connectivity, Coherence and Equivalence in Complex Marine Transboundary Regions', *Ocean & Coastal Management*, 245 (2023), 106875 https://doi.org/10.1016/j.ocecoaman.2023.106875

[83] Miguel Frohlich and others, 'A Network Approach to Analyse Australia's Blue Economy Policy and Legislative Arrangements', *Marine Policy*, 151 (2023), 105588 https://doi.org/10.1016/j.marpol.2023.105588

[84] Danai Machakaire and Masilonyane Mokhele, 'A Literature Review on the Paradoxes of Public Interest in Spatial Planning within Urban Settings with Diverse Stakeholders', *Sustainability*, 16.9 (2024), 3608 https://doi.org/10.3390/su16093608

Furthermore, cross-sectoral regulatory harmonization is required to ensure that all policies related to coastal space reside within a single, coherent legal framework. This reform must also clarify the division of authority between the central and regional governments, enabling the permitting process to operate effectively without generating a dualism of authority.[85]

Second, reform must be directed toward the implementation of an ecosystem-based approach within the permitting system. This approach positions environmental carrying and assimilative capacities as the primary foundation for decision-making. In this context, every issued permit must undergo a comprehensive evaluation process regarding ecological impacts, both in the short and long term.[86] This also necessitates the strengthening of environmental impact analysis instruments to ensure they are not merely administrative formalities, but truly substantive tools in determining the feasibility of an activity. Consequently, permitting can function as an instrument for environmental protection while simultaneously controlling resource exploitation.[87] Furthermore, the implementation of an ecosystem-based approach demands the reinforcement of environmental impact analysis instruments to ensure they function substantively rather than as mere administrative formalities.[88] The evaluation process must be conducted comprehensively by integrating scientific data, risk analysis, and long-term impact projections, including those related to climate change and environmental degradation. Additionally, post-permitting monitoring and evaluation mechanisms need to be strengthened to ensure compliance with established environmental standards. From an ecological justice perspective, this approach not only protects the ecosystem but also guarantees the sustainability of resources for coastal communities and future generations, ensuring that permitting truly functions as an instrument to control exploitation while safeguarding environmental sustainability.[89]

Third, strengthening spatial integration through the One Map Policy and the digitalization of permitting constitutes a strategic step in enhancing the

[85] Chunsheng Wu and others, 'Land Use Zoning Planning Based on Ecosystem Services Can Improve Regional Comprehensive Benefits', *Ecological Indicators*, 181 (2025), 114420 https://doi.org/10.1016/j.ecolind.2025.114420

[86] Gunnar Sander, 'European Approaches Support an Essential Definition of Ecosystem-Based Management and Demonstrate Its Implementation for the Oceans', *Ocean Development & International Law*, 54.4 (2023), 421–47 https://doi.org/10.1080/00908320.2023.2301105

[87] Elisa Lähde, Mari Pohja-Mykrä and Johanna Schreck, 'Co-Creation of Socio-Ecological Systems Knowledge to Adopt an Ecosystem-Based Approach and Land-Sea Interactions in Maritime Spatial Planning', *Marine Policy*, 163 (2024), 106079 https://doi.org/10.1016/j.marpol.2024.106079

[88] Luciana Yokoyama Xavier and others, 'Waves of Change: Towards Ecosystem-Based Management to Climate Change Adaptation', *Sustainability*, 14.3 (2022), 1317 https://doi.org/10.3390/su14031317

[89] Eerika Albrecht, Antti Belinskij and Elina Heikkilä, 'Policy Coherence for Ecosystem-Based Management: Implementing EU Water and Marine Policies in the Archipelago Sea', *Marine Policy*, 171 (2025), 106427 https://doi.org/10.1016/j.marpol.2024.106427

transparency, accountability, and consistency of coastal spatial policies.[90] The integration of spatial data facilitates alignment among various planning instruments, such as the Region Spatial Plans and the Coastal and Small Islands Zoning Plan, thereby minimizing spatial utilization conflicts and preventing the overlapping of permits that has historically been a source of legal uncertainty.[91] With an integrated geospatial database, every permitting decision can be predicated upon accurate, up-to-date, and cross-sectoral verifiable information. Concurrently, digitalization through the OSS-RBA system must be optimized not only as a tool for accelerating services but also as a transparent oversight instrument. This necessitates technological infrastructure readiness, system interoperability among agencies, and the enhancement of human resource capacity, particularly at the regional level, which frequently serves as the weak point in policy implementation.[92]

Fourth, coastal permitting governance reform must position public participation as a central, substantive element rather than a mere administrative formality.[93] The involvement of the public, particularly coastal communities, traditional fishers, and indigenous peoples must be guaranteed from the planning and decision-making stages through to post-permitting evaluation.[94] Meaningful participation necessitates open and accessible information, inclusive deliberative spaces, and mechanisms that enable communities to articulate their aspirations, objections, and interests on an equal footing with other actors.[95] Within this framework, the application of the principle of Free, Prior, and Informed Consent (FPIC) is crucial to ensure that any policy or project impacting the community has obtained consent that is free from coercion, predicated upon adequate information, and granted before activities commence.[96] Consequently, permitting governance will not only

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fulfil formal legality but also reflect procedural justice and respect for community rights.[97] Furthermore, meaningful public participation serves as a social control instrument against the potential abuse of authority in the permitting process. Community involvement can enhance transparency, strengthen accountability, and prevent exploitative practices that harm the environment and local communities.[98] From an ecological justice perspective, this participation reflects both procedural and recognition justice, wherein communities are not only acknowledged in their existence but are also granted an active role in determining the direction of resource management. Thus, permitting reform oriented toward public participation will yield policies that are more legitimate, inclusive, and sustainable.[99]

Fifth, institutional reform and the strengthening of coordination among authorities are primary prerequisites for the effective implementation of coastal spatial permitting policies.[100] Historically, the dualism of authority between central and regional governments, as well as the disharmony among ministries and sectoral agencies, indicates fundamental weaknesses in institutional design. This condition not only creates confusion in the execution of authority but also opens avenues for policy conflicts and inconsistencies in the permitting process.[101] Therefore, a clear delineation of authority is required, accompanied by the strengthening of a coordination framework capable of systematically integrating diverse interests. Furthermore, the establishment of integrated coordination mechanisms, such as an inter-agency body, can serve as a strategic solution to overcome institutional fragmentation in coastal management.[102] This body functions as a cross-sectoral coordination forum capable of unifying policies, accelerating decision-making, and ensuring consistency in regulatory implementation. In addition, strengthening institutional capacity, both in terms of human resources and support systems is an essential factor in supporting effective coordination. From an ecological justice perspective, robust and well-coordinated institutions will be capable of guaranteeing an equitable distribution of authority,

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enhancing accountability, and ensuring that coastal spatial management is conducted sustainably and in favour of the public interest.[103]

Conclusion

Based on the foregoing analysis, several conclusions can be drawn. *First,* regulatory inconsistencies in Indonesia's coastal spatial permitting system, manifested through horizontal, vertical, and temporal disharmony among overlapping legal frameworks and institutions, have resulted in fragmented authority, legal uncertainty, and weak central, regional coordination, which in practice hinder the effective implementation of integrated and sustainable coastal governance, as reflected in delayed the Conformity of Marine Spatial Utilization Activities approvals and conflicting spatial utilization across coastal regions. This condition not only undermines governance effectiveness but also reflects a failure to realize ecological justice. *Second,* the experiences of United Kingdom and China highlight the importance of integrating spatial planning with permitting systems and strengthening institutional frameworks. However, within the Indonesian context, such reforms must be complemented by participatory and ecologically grounded approaches to ensure not only legal certainty but also social equity and environmental sustainability. *Third,* the reform of coastal permitting governance should be directed toward the integration of planning and licensing systems, the adoption of an ecosystem-based approach, the enhancement of digitalization and spatial data systems, the expansion of public participation, and institutional strengthening, in order to achieve a model of coastal governance that is equitable, transparent, and sustainable.

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