"GREENWASHING THREAT ON GRAND BATANG CITY COASTAL GOVERNANCE FOLLOWING THE IMPLEMENTATION OF PP NO. 26/2023"

Muhamad Riza Nouval Putra*), Yuwanto**), Dzunuwanus Ghulam Manar**)

Email: <u>rizanoptra28@gmail.com</u>

Departement of Politics and Government Studies, Universitas Diponegoro, Indonesia

Jl. Prof. Soedarto, SH., Tembalang, Semarang 50275, Kode Pos 1269

Website: https://www.fisip.undip.ac.id/ Email: fisip@undip.ac.id

ABSTRACT

This research examines the potential greenwashing practices in coastal governance of Grand Batang City following the implementation of Government Regulation (PP) No. 26/2023. Through qualitative analysis and case study methodology, this study investigates how environmental claims and initiatives in coastal management policies may mask inadequate or counterproductive environmental practices. The research utilizes primary data collected through in-depth interviews with key stakeholders, including local government officials, environmental activists, and coastal community representatives, supplemented by secondary data from policy documents and environmental reports.

Findings indicate several concerning patterns: firstly, the existence of superficial environmental programs that lack substantial ecological impact; secondly, discrepancies between published environmental achievements and actual coastal conditions; and thirdly, the use of environmental rhetoric in policy documents that does not translate into meaningful conservation actions.

This study reveals that while PP No. 26/2023 aims to strengthen environmental protection, its implementation in Grand Batang City faces challenges from greenwashing practices that potentially undermine genuine coastal conservation efforts. The research contributes to the growing body of literature on environmental governance and policy implementation in coastal areas, while providing practical insights for policymakers and environmental advocates in addressing greenwashing challenges in coastal management.

Keywords: Greenwashing, Coastal Governance, PP No. 26/2023, Grand Batang City.

A. Introduction

Coastal ecosystems serve as crucial carbon sinks globally, playing a vital role in climate change mitigation through their ability to store and bind carbon. These ecosystems, alongside tropical forests and peatlands, offer countries opportunities to meet their emission reduction targets under international agreements such as the Paris Agreement and the High Seas Treaty. However, their continuing destruction threatens to release more anthropogenic greenhouse gases into the atmosphere.

Indonesia, as a participant in these international climate agreements, faces significant challenges in balancing environmental preservation with economic development. This is evidenced by the country's Ocean Health Index score of 69 out of 100, below the global average of 73, ranking 152nd out of 220 countries. Recent research by LIPI (2020) further these challenges, highlights showing moderate to unhealthy conditions in key marine ecosystems, with only 6.42% of coral reefs in very good condition.

The Indonesian government's response includes the implementation of Government Regulation (PP) No. 26/2023, which aims manage to coastal sedimentation and rehabilitation. However, this regulation has sparked controversy due to its potentially contradictory approach. While it purports to support coastal rehabilitation, it simultaneously permits sea sand extraction for various purposes, including export, reclamation, and infrastructure development.

This contradiction is particularly evident in cases like the Batang Integrated Industrial Area (KITB) development along Central Java's northern coast. The project, part of the National Strategic Project, tension demonstrates the between economic development and environmental preservation. The regulation's provisions for sea sand utilization by business actors, coupled with limited restrictions on sand dredging activities. raise significant concerns about coastal ecosystem preservation.

The implementation of PP No. 26/2023 therefore presents several critical for Indonesia's implications coastal environments. These include potential threats to small islands, as highlighted by WALHI's research who shows 20 small islands already submerged and 115 others at risk, disruption of natural coastal barriers, and possible greenwashing effects. Thus, this study aims to analyze some implications through the lens of Environmental Impact, Policy Framework, and Ocean Health Index indicators, focusing particularly on how government behaviour influences agenda-setting for business purposes.

B. Theory and Methodology

The theoretical framework of this research is grounded in three key concepts, mainly: Ocean Health Index (OHI), coastal protection, and policy implementation analysis.

1. Ocean Health Index

Ocean Health Index (OHI) established in 2012, evaluates ocean health through ten different targets including food provision, natural products, coastal protection, livelihoods and economies, and biodiversity. This index serves as a crucial tool for assessing ecosystem management, particularly in archipelagic nations like Indonesia, where coastal environments play a vital role in both ecological and socioeconomic aspects. Coastal protection, meanwhile. encompasses both natural and man-made systems, categorized into hard and soft strategies, with attention to the integration between land and sea ecosystems, sectors and stakeholders, and various levels of government bodies.

2. Policy Implementation Framework

Policy implementation analysis is examined through Richard's (1995) matrix theory, which identifies four key types of implementation: administrative, political, experimental, and symbolic.



Picture 1. Matrix of Policy Implementation Process. Source: Richard E. (1995)

> This framework analyzes policies based on their levels of ambiguity and conflict, particularly when relevant examining environmental policies that may be subject to greenwashing - the act of manipulating public opinion using a green brand image. In the context of PP No. 26/2023, this theoretical framework helps evaluate how policy implementation may be influenced by various actors and interests, especially in cases where environmental protection goals conflict with economic may development objectives.

3. Coastal Protection

Coastal areas represent uniquely valuable zones where land meets sea and fresh water mingles with salt water, offering diverse development opportunities while increasing facing ecological pressures. Indonesia. with its 81,000 km coastline and 17,508 islands, exemplifies the complexity of coastal management, where rapid population growth and development activities for residential, fishing, ports, and tourism purposes create mounting environmental challenges. The country's coastal ecosystems are particularly rich, hosting Asia's most extensive mangrove forests, sea grass beds, and coral reefs, all of which are influenced bv Indonesia's distinctive seasonal patterns - wet and dry seasons. These areas have become increasingly significant due to three factors: main Indonesia's archipelagic nature, growing developmental pressures, and the global shift in economic activities toward coastal regions.

According to Reeves, Chadwick, and Fleming (2018), the protection of some vital coastal zones can be achieved through both natural and human-made systems, categorized into "hard" and "soft" strategies. Hard strategies typically involve constructed defenses like sea dykes, seawalls, revetments, groynes, and offshore breakwaters, while soft strategies utilize natural elements such as dunes, supratidal beaches. and morphological nourishment. The effectiveness of coastal protection relies heavily on three fundamental principles of integration as outlined by Dahuri R.: the integration between land ecosystems, and sea the coordination between sectors and stakeholders, and the alignment between different levels of government bodies. This comprehensive approach recognizes that coastal waters are an integral part of the broader coastal region, where biophysical conditions are influenced by various oceanic activities including water intrusion, tidal movements, wind patterns, and sea currents, making it essential to manage these through a holistic areas and coordinated effort.

4. Greenwashing

The policy framework in PP No.26/23 has been questioned due to potential misinterpretations that could lead to unethical practices such as greenwashing. A wellstructured policy should be based on clear values and purposes, complementing previous regulations. While the policy emphasizes environmental preservation, certain descriptions within it may be misleading and suggest self-interested motives. Greenwashing, as defined by Wongkar Apsari and (2021),involves manipulating public opinion through a green brand image, while Lyon and Maxwell (2006) describe it as the intentional spread of disinformation to appear environmentally responsible. The policy misinterpretation of descriptions can mislead the public, making them believe in its stated objectives while obscuring underlying interests.



Picture 2. Greenwashing Triangle Framework. Source: Adapted from Delmas & Urbano 2011), KPMG (2020)

The Greenwashing Triangle Framework (Delmas & Urbano, 2011; KPMG, 2020) identifies three key factors—rationalization, opportunity, and pressure—that shape perceptions of policy legitimacy. Kolcava (2023)highlights how public opinion regulatory influences decisions, with citizen preferences ultimately shaping government agendas (Chu & Recchia, 2022). This suggests that public scrutiny and discourse play a crucial role in holding policymakers accountable and ensuring transparency in policy implementation.

At this point, this study employs a mixed-method approach, combining quantitative and qualitative analysis to examine the implications of PP No. 26/2023 on coastal areas, specifically in the Grand Batang City region. The study utilizes data from the Ocean Health Index alongside interviews with key stakeholders from both government institutions and civil society organizations. Research subjects include officials from the Ministry of Fisheries and Marine Affairs, the Grand Batang City corporate sector. environmental NGOs such as Greenpeace Indonesia and Indonesia Ocean Justice Initiative, local residents from three villages, and academic experts from the Center for Coastal Rehabilitation Disaster and

Mitigation Studies at Diponegoro University.

C. Result and Analysis

The implementation of Government Regulation No. 26/2023 in Grand Batang City demonstrates the complexities of coastal management policy While in Indonesia. the regulation establishes a structured framework for managing coastal sedimentation with multiple stakeholders, its execution faces significant challenges in coordination between central and local authorities.

a) The implementation of PP
 No.26/2023 in Grand Batang City
 based on Four Perspectives
 Analysis

PP No.26/2023 contains several steps of management on sedimentation result in coastal area. The steps consist of planning, controlling, utilizing, and monitoring which involving national and local government actors, especially on the case of Grand Batang City. In this section, researcher use Matrix of Implementation Framewok Policy Process by Richard E (1995) by looking such as: procedures of policy; coalition building and conflicts; coastal governance and their mitigation acts; and the perspective of greenwashing threat among public.

1. Administrative Implementation

The implementation of Government Regulation No. 26/2023 follows structured a hierarchical system, with the Ministry of Fisheries and Marine Affairs serving as the primary national-level implementer. То operationalize this regulation effectively, the Ministry has established three key derivative policies: Regulation No. 33/2023, which provides detailed technical guidelines and procedures; Decree No. 208/2023, which identifies priority locations for sediment management; and Decree No. 16/2024. which outlines comprehensive planning documents for seven designated areas across Indonesia.

The implementation process incorporates both top-down and bottom-up approaches in its administrative framework. While the national government maintains overall local authority, governments play a crucial role in identifying potential sedimentation areas within their jurisdictions. Business actors can also propose specific locations for sediment management, though these proposals must undergo rigorous evaluation by a due diligence team coordinated by the Ministry of Fisheries and Marine Affairs, including expert assessment from academic institutions.

From administrative an perspective, PP No. 26/2023 demonstrates strong structural integrity with minimal ambiguity and conflict in its implementation framework. The regulation's effectiveness is enhanced by clear accountability mechanisms and well-defined roles across different governmental levels. Some notable aspects include: the establishment of specific technical protocols for sediment management, the designation of priority locations for implementation, the inclusion of comprehensive planning documents for designated areas, and the creation of a structured evaluation process for business proposals.

2. Political Implementation

The implementation of PP No. 26/2023 reveals complex political dynamics between national and local government authorities. The Ministry of Fisheries and Marine Affairs maintains primary authority over the regulation's implementation, while provincial and local governments serve

facilitators. This primarily as hierarchical structure is evident in Central Java Province's limited involvement, where their role focuses mainly on socialization efforts and providing research support for derivative policies. The provincial office can issue permits for marine space utilization based on Suitability of Marine Space Utilization Activities (KKPRL) documents, but the ultimate authority remains with the national government. It creates a distinct power dynamic where local governments act as intermediaries between business actors and national authorities rather than primary decision-makers.

In the context of Grand Batang City, the political implementation framework demonstrates a clear concentration of power at the national level. While the Batang Regency government is а shareholder in the project and participates in the Design Committee for administrative matters. their involvement is limited to social aspects and bureaucratic procedures rather than substantial development decisions. This structure indicates a high level of conflict in the political implementation process, as the desired outcome of coastal environmental rehabilitation must be balanced against the dominant authority of national government agencies. The bargaining process between national government, local government, and business actors exists within this framework, but the ultimate decision-making power remains centralized at the national level. Additional considerations include: the absence of derivative regional regulations related to sediment management, the requirement for marine space utilization permits through the Online Single Submission system, and the distinction between national and local authority zones as defined by Local Regulation Number 13/2018 of Central Java Province.

3. Experimental

Implementation

On the other hand, experimental implementation analysis of PP No. 26/2023 in Grand Batang City reveals a complex relationship between policy intent and practical application. Despite being a National Strategic Project (PSN) that includes coastal development

Jetti international through the harbor project, Grand Batang City maintains that it does not directly implement PP No. 26/2023 in its development activities. The main development area, spanning 4,300 hectares, is situated on former PTPN plantation land that does not directly touch the coastal area. For construction materials, the project primarily utilizes local resources through cut-and-fill methods, while tenant companies like KCC Glass source materials from specific locations such as Belitung Island, rather than relying on marine sedimentation as outlined in the regulation.

This implementation scenario presents an interesting paradox in policy application. While PP No. 26/2023 specifically designates Strategic National Projects as priority beneficiaries of sediment management results, Grand Batang development approaches City's demonstrate limited engagement with the regulation's provisions. The planned transition from PSN to Special Economic Zone (KEK) status further complicates the implementation landscape, as it may alter the power dynamics and regulatory framework governing

project. This situation is the influenced by several factors: the technical requirements for construction materials that may not align with available sediment resources, the establishment of an independent Design Committee for administrative matters, and the separation of authority between different state-owned enterprises involved in the project. Additional considerations include the distinct environmental impact analyses for different project components, the potential for policy implementation changes under new presidential leadership, and the anticipated increased role of local government involvement under KEK status as Government Regulation per Number 40/2021.

4. Symbolic Implementation

The implementation of PP No. 26/2023 has generated significant public discourse and controversy since its release, particularly regarding its environmental perceived implications and underlying motives. Environmental organizations, including Greenpeace Indonesia and the Indonesia Ocean Justice Initiative (IOJI), have expressed strong concerns about the regulation's true intentions. Their primary criticisms focus on two key aspects: the potential legalization of sea sand mining under the guise of marine restoration, and the reopening of sand export activities that had been since 2002. These banned organizations argue that the regulation lacks concrete recovery instead mechanisms and emphasizes licensing procedures for businesses. This skepticism has been further fueled by developments such as the Ministry of Trade's Regulation Number 20/2024, which permits the export of marine sediment, and the registration of approximately 66 companies interested in sediment management activities.

The government's response to these concerns has been marked by varying interpretations among officials, contributing to public uncertainty about the regulation's objectives. While the Ministry of Fisheries and Marine Affairs maintains that the policy prioritizes ecological rehabilitation over mining interests, other government actors have presented different perspectives. This ambiguity is exemplified by the case of PT Gajamina Sakti Nusantara.

established by a high-ranking government official specifically for marine sediment management, which has raised questions about potential conflicts of interest. Academic perspectives, represented by researchers such as Prof. Dr. Denny Nugroho Sugianto from Diponegoro University, offer more optimistic view. а emphasizing the regulation's for potential environmental rehabilitation while acknowledging the need for careful implementation to ensure sustainable development. Key considerations include: the limited involvement of NGOs in substantial policy discussions, the emergence of new business entities focused on sediment management, the varied interpretations of the policy's purpose among government officials, and the between environmental tension protection goals and commercial interests. This situation has resulted in high levels of both ambiguity and conflict in the policy's symbolic implementation, as evidenced by continued public opposition and divergent stakeholder perspectives.

5. Conflict and Ambiguity Analysis on the

Implementation of PP No.26/2023

The implementation of PP No.26/2023 faces significant ambiguity challenges in both its goals and means of execution. While national government created policy, local government the authorities, particularly the Fisheries and Ministry Affairs Unit Office of Central Java, have limited roles despite being given authority for implementation. The policy's goals lack clarity, especially regarding sediment management which can be used for various purposes including reclamation, infrastructure development, and sea sand export. This ambiguity is further complicated the by authority structure between provincial and local governments, where provincial governments have jurisdiction over areas 0-12 miles from the coast, potentially leading conflicts of interest to and overlapping responsibilities.

The policy also faces significant conflict-related challenges, particularly in terms of political interference. A notable example is the involvement of political actor Yusril Ihza Mahendra, who established PT Gajamina Sakti Nusantara for marine sediment cleaning while serving as Coordinating Ministry Human for Law. Rights, Immigration and Indonesian Correction in Prabowo Subianto's administration. While the policy's implementation in Grand Batang City has been limited, the high level of political interference suggests a shift toward more business-oriented demands in its implementation. With the change in presidential administration, new decisions and regulations may emerge to facilitate the implementation process in the future.

b) Grand Batang City Contribution on Managing Coastal Environment

As a business actor, Grand Batang City has a responsibility to establish balanced environmental harmony amidst its development. The Ocean Health Index (OHI) serves as a method to assess various impacts and provide clear solutions for the surrounding In this environment. case. the researcher aims to evaluate Grand Batang City's environmental OHI performance based on the framework within the implementation of PP No.26/2023. The concept of the Ocean Health Index determines the contextual situation in the field, which can be used to assess and evaluate further efforts, especially in the scope of coastal governance. Halpern et al. (2014) further explain OHI as a credible indicator for analyzing realtime conditions based on specific goals. In this research, the researcher focuses on two key OHI goals: Coastal Livelihoods & Economics and Coastal Protection. These goals serve as indicators to assess coastal conditions based on certain standards applied in the OHI framework.

1. Analysis of Coastal Livelihood and Economics

The impact of Grand Batang City's development on coastal livelihoods varies significantly different across villages. In Kedawung Village, residents. particularly those in the coastal area, report minimal employment from opportunities the development, with flooding issues in the early construction phase being their main concern. Meanwhile, Ketanggan Village, located in the center of Grand Batang City, shows a mixed economic pattern where some transitioned residents have to industrial work (women in shoe factories and men in construction projects) while others maintain their traditional fishing livelihoods. Despite corporate claims of job creation, fishing remains a dominant occupation in these areas.

A contrasting situation exists in Sidorejo Village, where residents have successfully integrated into the industrial framework, with many transitioning from fishing and farming to factory work at facilities like KCC Glass. However. this geographical paradox-where a more distant village shows higher industrial labor participation than closer coastal communities-suggests that factors beyond proximity influence development success. Based on these findings and the Ocean Health Index (OHI) perspective, the empowerment of coastal livelihoods around Grand Batang City appears uneven, with insufficient evidence of effective coastal livelihood governance, potentially indicating a low OHI score for the region.

2. Analysis of Coastal Protection

The study examines coastal protection across three key locations near Grand Batang City: Celong Beach, Plabuan Beach, and Jodo Beach, presenting each distinct coastal protection characteristics and challenges. Celong Beach features natural protection components including rock weathering patterns, plant density, and natural groynes, though it lacks mangrove plantations and shows signs of root system damage.

Plabuan Beach, located in the combines both center area. artificial (sea wall) and natural (mangrove) protection elements, but faces significant challenges including river drying, sediment deposition, and environmental impacts that affect local fishing communities. According to local fishermen, the development of Grand Batang City has led to river shallowing and deteriorating fishing conditions, with limited response from authorities regarding these issues.

Jodo Beach, on the eastern side, presents a more positive scenario with comprehensive coastal protection components and active support from Grand Batang City, including mangrove planting initiatives. However, research by Islam, Suryoputro, and Handoyo (2022) indicates that both Jodo Beach Celong Beach and significant experience coastline with decline, Celong Beach showing higher rates of deterioration despite Jodo Beach having more proper protection components.

According to Professor Denny Sugianto, these coastal changes are attributed not only to climate change but also to unsustainable development practices. But based on Ocean Health Index (OHI) factors, the coastal governance near Grand Batang City shows implementation, contradictory where conservation efforts are focused on less critical areas while significantly affected areas remain unaddressed, resulting in a low OHI score for both coastal livelihood and protection.

3. Grand Batang City Mitigation Efforts on Coastal Protection Aspect

Grand Batang City's approach to coastal area management and environmental responsibility reveals significant gaps between commitments and actual While implementation. the company claims to pursue Corporate **Sustainability**

Responsibility (CSR) through a shared value concept, their efforts primarily focus on social development aspects, such as training programs, rather than addressing pressing environmental concerns. According to Mr. Tanya Liwali Chamdy, Head Corporate Communication. their CSR environmental activities mainly target Jodo Beach through mangrove and sea pine planting, despite this area being relatively unaffected by their development activities.

A critical disconnect exists environmental between impact assessments (AMDAL) commitments and their realization. Local residents, particularly in Ketanggan Village, report that neither Grand Batang City nor PT Pelabuhan Indonesia (PELINDO) fulfilled their AMDAL have agreements, especially regarding development's the dry port environmental impact. This selective approach to environmental responsibility, focusing on unaffected areas while neglecting regions directly impacted by development, suggests potential greenwashing practices.

The situation highlights a misalignment between corporate environmental commitments and actual implementation, emphasizing the need for more robust environmental management practices and genuine integration of sustainable development principles in coastal area development.

D. Conclusion

The PP implementation of No.26/2023 in Grand Batang City presents a multi-faceted case study that illuminates the challenges of translating national environmental policy into effective local action. At the national level, the Ministry of Fisheries and Marine Affairs has demonstrated strong policy formulation capabilities by establishing a comprehensive regulatory framework through PP No.26/2023 and its derivative policies. However, this apparent strength in policy creation stands in stark contrast significant to the implementation challenges observed at the local level. The policy's execution in Grand Batang City reveals fundamental systemic issues that extend beyond simple administrative hurdles, touching on deeper structural problems in Indonesia's environmental governance framework. These challenges manifest in critical several areas: bureaucratic misalignments between national and local governments,

inadequate resource allocation, poor interdepartmental coordination, and a problematic centralization of authority that leaves provincial and regency governments with limited decision-making power despite their proximity and to understanding of local environmental challenges.

The study reveals a particularly concerning pattern in Grand Batang City's approach to coastal environment management, which appears to prioritize corporate image over substantive environmental protection. Through detailed observational analysis, researchers identified a significant disconnect between company's stated environmental the commitments and their actual implementation. This disparity is most evident in their selective approach to environmental initiatives, where resources and attention are directed toward areas that face minimal development impact while neglecting regions directly affected by their operations. This pattern suggests a form of environmental tokenism, where corporate sustainability efforts serve more as public relations tools than genuine environmental protection measures. The lack of meaningful community engagement further compounds this issue, local stakeholders, particularly in as affected coastal areas, report feeling marginalized in decision-making processes despite being the primary bearers of environmental impact.

The implications of these findings extend beyond Grand Batang City, pointing to broader systemic issues in Indonesia's environmental governance structure. The case highlights how the centralization of authority, combined with inadequate local government capacity and resources, can create a perfect storm where well-intentioned national policies fail to achieve their objectives at the local level. The absence of dedicated government apparatus to oversee implementation has effectively rendered the policy toothless, existing primarily on paper while failing to drive meaningful change in coastal rehabilitation and preservation efforts. This situation raises important questions about the effectiveness of Indonesia's current environmental approach to policy implementation and suggests the need for a rethinking fundamental of how environmental governance is structured and executed at different governmental levels.

This comprehensive analysis underscores the urgent need for reform in how environmental policies are implemented in Indonesia. It suggests that successful environmental governance requires not just strong policy frameworks at the national level, but also robust implementation mechanisms at the local level, meaningful community engagement, and genuine corporate commitment to environmental protection that goes beyond surface-level compliance. The case of Grand Batang City serves as a valuable lesson in how the gap between policy intention and implementation reality can undermine environmental protection efforts, highlighting the critical importance of addressing structural governance issues to achieve meaningful environmental outcomes.

E. Recommendations

This study addresses the issue of the greenwashing threat to coastal governance in Grand Batang City, in relation particularly to the implementation of PP No. 26/2023. However, the implementation of the policy in Grand Batang City is still not fully relevant, although it reveals opportunities for utilizing the policy effectively.

Based on the findings, the research provides several recommendations for both the government and business actors regarding the implementation of PP No. 26/2023 and coastal governance efforts. These recommendations include:

 Strengthening the principles and objectives of PP No. 26/2023, which follows systematics coordination between national and local government.

- Measuring demographical needs of coastal residents to job opportunities by Grand Batang City, in order to encourage coastal communities who affected by the development.
- Defining specific criteria for business actors wishing to utilize marine sediment, which would help ensure that the policy aligns with sustainable development goals.
- Establish mutual and strategic communication between government, business actors, and coastal residents to enhance the governance aspect.
- Encouraging academics and Non-Governmental Organization to be involved in measuring as well as monitoring aspect of the implementation of PP No.26/2023. It could reflects the effective governance on managing coastal environmnent.

Bibliography

- Abdullah, F., & Goh, A. T. (2012). The Dirty Business of Sand: Sand Dredging in Cambodia. Lee Kuan Yew School of Public Policy Case Study.
- Blomkamp, E., Sholikin, M. N., Nursyamsi, F., Lewis, J. M., & Toumbourou, T. (2017). Understanding policymaking in Indonesia: in search of a policy cycle. no. June, 1-45.

- Delmas, Magali & Lyon, Thomas & Maxwell, John. (2019). Understanding the Role of the Corporation in Sustainability Transitions. Organization & Environment. 32. 87-97.
- Dharani, U. B. (2022). What are the Roots of Singaporean Sand?: The Impact of Sand Dredging in Southeast Asia. Indian Ocean World Centre Working Paper Series, 13.
- Hilbert, M. R., & Katz, J. (2002). Toward a conceptual framework and public policy agenda for the information society in Latin America and the Caribbean. ECLAC.
- Kementrian Koordinator Maritim dan Investasi Indonesia. (2020). Rencana Strategis Kementrian Koordinator Bidang Kemaritiman dan Investasi Tahun 2020 – 2024 (Permenko Bidang Kemaritiman dan Investasi Nomor 6 Tahun 2020). Jakarta. MENKOMARVES.
- Kolcava, D. (2023). Greenwashing and public demand for government regulation. Journal of Public Policy, *43(1), 179-198*.
- Lamb, V., Marschke, M., & Rigg, J. (2019). Trading sand, undermining lives: omitted livelihoods in the global trade in sand. Annals of the American Association of Geographers, 109(5), 1511-1528.
- Gazioğlu, C. (2018). Biodiversity, coastal protection, promotion and applicability investigation of the ocean health index for Turkish seas. International Journal of Environment and Geoinformatics, 5(3), 353-367.
- Longo, C. S., Frazier, M., Doney, S. C., Rheuban, J. E., Humberstone, J. M., & Halpern, B. S. (2017). Using the ocean health index to identify opportunities and challenges to improving Southern Ocean

ecosystem health. Frontiers in Marine Science, 4, 20.

- Noufid, A., & Hidar, N. (2022). Study of the use of dredged sand as an alternative to beach sand and coastal dunes for coastal preservation.
- OECD (2020), Policy Framework on Sound Public Governance: Baseline Features of Governments that Work Well, OECD Publishing, Paris.
- Pemerintah Indonesia. (2023). PERATURAN PEMERINTAH REPUBLIK INDONESIA NOMOR 26 TAHUN 2023. Jakarta. Pemerintah Pusat.
- Ramus, Catherine & Montiel, Ivan. (2005). When Are Corporate Environmental Policies A Form of Greenwashing?. Business & Society - BUS SOC. 44. 377-414. 10.1177/0007650305278120.
- Sandha, Oktarika & Puspita Kurniawati, Chandra. (2023). SUSTAINABILITY FRAUD: GREENWASHING. 30-41.
- United Nations Environment Programme (UNEP). (2014). Sand, rarer than one thinks. Environ. Dev., 11, 208-218.
- Geden, О. (2016). The Paris Agreement and the inherent inconsistency of climate policymaking. Wiley Interdisciplinary Reviews: Climate Change, 7(6), 790-797.
- Wahyudi, W., Martono, D. N., Utomo, S. W., & Sutjiningsih, D. (2023).
 Investigating Impact of Sea Sand Mining in Tunda Island Waters, Indonesia Based in Mike 21 Modelling. Croatian Journal of Fisheries, 81(2), 73-81.
- Wu, Z., Chen, R., Meadows, M. E., & Liu, X. (2021). Application of the Ocean Health Index to assess ecosystem health for the coastal areas of Shanghai, China. Ecological Indicators, 126, 107650.

- Richard. (1995). Matland. "Synthesizing the Implementation Literature: The Ambiguity-Conflict Model of Policy Implementation." Journal of Public Administration Research and Theory, 5(2): 145-174.. Journal Public of Administration Research and 5. 145-174. Theory. 10.1093/oxfordjournals.jpart.a037 242.
- Bulling, M. T., Hicks, N., Murray, L., Paterson, D. M., Raffaelli, D., White, P. C., & Solan, M. (2010). biodiversity-ecosystem Marine under uncertain functions environmental futures. Philosophical Transactions of the Society Royal B: Biological Sciences, 365(1549), 2107-2116.
- Haryani, et al., (2021). Development of Coastal Protection Structure in Karawang Coastal Area of Indonesia. International Journal of Research and Innovation in Applied Science. 06. 14-22.
- Mardiasmo, D., Barnes, P. H., & Sakurai, Y. (2008). Implementation of good governance by regional governments in Indonesia: the challenges. In Twelfth Annual Conference of the International Research Society for Public Management.
- Prayogo, Y., Rochaddi, B., & Widada,
 S. (2023). Sebaran Sedimen Dasar
 di Pantai Segolok, Batang.
 Indonesian Journal of
 Oceanography, 5(1), 90-99.
- Reeve, D., Chadwick, A., & Fleming,C. (2018). Coastal engineering:processes, theory and designpractice. Crc Press.
- Gärtner, Holger & Schweingruber, Fritz & Dikau, Richard. (2001). Determination of erosion rates by analyzing structural changes in the growth pattern of exposed roots. Dendrochronologia. *19. 81-91*.

- Delmas MA, Lyon TP and Maxwell JW (2019) Understanding the Role of the Corporation in Sustainability Transitions. Organization & Environment, 32(2): 87–97
- deLeon, P. (1995). Democratic Values and the Policy Sciences. American Journal of Political Science, *39(4)*, *886–905*.