

The Role of National Maritime Policy in Supporting Marine Resource Sustainability

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Abstract. Indonesia is the biggest archipelago on the planet and can possibly turn into the World Oceanic Pivot. Indonesia's public arrangement on the maintainability of marine assets is designed to protect and manage marine ecosystems in a sustainable manner. The methodology used is descriptive juridical analysis. The results show that national maritime policies, such as the Coastal Zone and Small Islands Zoning Plan (RZWP3K) and the Indonesian Ocean Policy (KKI), play an important role in regulating and protecting marine ecosystems. These policies contribute to reducing overexploitation, improving monitoring and law enforcement, and promoting sustainable fisheries practices. Implementation of the national maritime policy requires good coordination between various government agencies, adequate resource allocation, and active participation from the community and private sector. National maritime policy plays a key role in the management and conservation of marine resources. This role involves various aspects, from regulation and law enforcement to the development of conservation programs and sustainable use of resources.

Keyword: Role, National Maritime Policy, Sustainability, Marine Resources.

1 Introduction

The Unitary Condition of the Republic of Indonesia (NKRI) is an archipelago portrayed by the archipelago, has absolute sovereignty over the territory, and has sovereign rights outside its sovereign territory and certain other authorities to be managed and utilized to the greatest extent for the welfare of the Indonesian people.

As a state party to UNCLOS 1982, Indonesia has full sway over regional waters comprising of inland waters, archipelagic waters and regional ocean. Moreover, Indonesia's sway likewise incorporates the seabed and its items, as well as the airspace over the regional waters, even to all sources of wealth contained therein. The right of sovereignty is followed by the obligation of the

Government of Indonesia to manage properly and sustainably for the welfare of the Indonesian people and in accordance with national interests.

Indonesia additionally has sovereign privileges and certain experts in Indonesia's jurisdictional region outside the regional ocean comprising of the Advantageous Zone, Select Financial Zone (EEZ) and Mainland Rack. Indonesia's regional ocean is 12 nautical miles wide estimated from the pattern of the Indonesian archipelago. If the sea zone borders an adjoining nation, its external not set in stone by concurrence with the adjoining country, as per international law, particularly UNCLOS 1982. [1]

In the jurisdiction area, Indonesia has certain authorities in accordance with its maritime zone. In the Supplementary Zone, Indonesia has the authority to conduct law enforcement in the fields of customs, taxation, immigration, quarantine, and health (sanitation). In the Exclusive Economic Zone (EEZ), Indonesia has the sovereign right to manage water column resources. [2] Meanwhile, on the continental shelf, Indonesia has the authority to regulate and manage the seabed, and the wealth beneath it. Indonesia also has sovereign rights on the continental shelf beyond 200 nautical miles up to a maximum of 350 nautical miles if Indonesia can prove scientifically, such as the United Nations (UN) recognition of the submission of a continental shelf extension with an area of 4,209 km² (approximately the size of Madura Island) west of Aceh.

Indonesia's different oceanic zones are laid out as per the arrangements of global law of the ocean. Indonesia's Regional Ocean, Advantageous Zone, Selective Financial Zone (EEZ), and Mainland Rack, if they do not border neighboring countries, Indonesia establishes them unilaterally. In the case of borders with neighboring countries, it will be determined in accordance with the principles of international law of the sea. The implementation of Indonesia's sovereignty and sovereign rights in the various maritime zones must be in line with international law, and take into account Indonesia's strategic interests, especially those related to ensuring the integrity of the country's territory, maintaining state sovereignty, and the welfare of the entire nation.

Indonesia's sovereignty and sovereign rights in these maritime zones, Indonesia also has certain interests outside the national jurisdiction area and the high seas, as well as the seabed in international waters for national interests and the interests of mankind together. [3] The management of Indonesian waters must not forget the potential role of Indonesia to participate in managing the high seas and deep seabed. Various countries, even neighboring countries in the Southeast Asian region, have competed to participate in managing the seabed in international waters. The large potential of natural resources on the seabed of international waters is one of the alternatives to meet Indonesia's needs for energy and minerals.

Indonesia is the biggest archipelago on the planet that can possibly turn into the World Oceanic Hub. By restoring Indonesia's maritime identity, protecting maritime security and interests, and empowering maritime potential to realize Indonesia's economic equity, the World Maritime

Axis aims to make Indonesia a large, strong, and prosperous maritime nation. Towards the World Sea Hub nation will incorporate the improvement of sea processes from the parts of foundation, governmental issues, socio-culture, regulation, security, and economy. Upholding the power of the NKRI ocean region, reviving marine monetary areas, reinforcing and creating sea network, restoring ecological harm and monitoring biodiversity, and working on the quality and amount of marine HR, are the primary projects with an end goal to acknowledge Indonesia as a world sea hub.

Approximately 90% of the world's total trade volume is conducted by sea and about 61% of the world's oil is also distributed by sea, with the potential value of ocean wealth reaching US\$24 trillion. Despite the importance of marine functions, marine crimes are also increasing, such as piracy, drug smuggling, human trafficking and illegal fishing. Not to mention environmental problems in the marine area, ranging from plastic waste, water pollution, warming temperatures and rising sea levels. This was stated by President Joko Widodo at the opening of the 2018 Our Ocean Conference (OOC) in Nusa Bali.

This shows that the Indonesian people have not yet felt the significant role of their maritime potential characterized by the absence of maritime potential management. Indonesia to the fullest. Indonesia's diverse maritime potential, which includes the marine biotechnology industry, deep waters, marine tourism, marine energy, marine minerals, defense, shipping, and the maritime industry, has the potential to significantly improve Indonesia's well-being and prosperity. According to paragraph 3 of Article 33 of the 1945 Constitution, the earth, water, and other natural resources shall be administered by the state and used for the benefit of the people. Although it cannot be denied that many natural resources, especially the sea in Indonesia, are still controlled by foreign parties and prioritize their own interests.

In this case, the role of the Government is needed to be able to always maintain, maintain and process maritime wealth and potential in Indonesia. Therefore, the management of marine natural resources is not an easy thing because it starts from improving infrastructure, improving the quality of human resources, modernizing technology and sustainable funding in the state budget so that it can provide benefits in the economic field for the country and also for the community. [4]

Based on the background described above, the problems of this research can be formulated as follows: How the role of national maritime policy in empowering coastal communities to engage in sustainable management of marine resources? and how the main challenges faced in the implementation of marine conservation policies in Indonesia?

2 Methodology

The research used in writing is normative juridical. The sources of legal materials used in this research are primary legal materials and secondary legal materials. Primary materials used are legal science books. [5] The types of approaches used in this research are legislation approach, case approach and legal concept analysis approach. The data processing method used is the analysis method which is then outlined in descriptive analysis writing.

3 Result and Discussion

The existence of oceans and coasts in Indonesia is a great gift, with the potential wealth contained in it, the potential contained in the sea both fishery resources and mineral resources. Waterfront region is a momentary region among land and ocean. The boundary that is parallel to the coastline and the boundary that is perpendicular to the coastline are the two types of boundaries that can be inferred from the coastline in the coastal area. Beach front regions are characterized as momentary regions among ocean and land, towards the land incorporates regions that are as yet impacted by sprinkling ocean water or tides and towards the ocean incorporates mainland openness regions.

Approximately 60% of Indonesia's total population live in coastal areas, with a width of 50 km from the coastline. In this area, there are 80% of Indonesia's industrial areas that operate and utilize coastal resources, which in the process of industrialization dispose of their trash along the coast. As a matter of fact, alluding to existing information, seaside assets are the source and focus of the most extravagant tropical marine biodeversity on the planet, where 30% of the world's mangrove woodlands are in Indonesia; 30% of the world's coral reefs are in Indonesia, 60% of creature protein utilization comes from fisheries assets, while 90% of fish comes from profound beach front waters inside 12 nautical miles of the shoreline. [6]

The potential of natural resources in the waters and coastal potential to be explored and utilized has enormous value, the potential that exists to be utilized and has economic value. Beaches in Indonesia's coastal areas have benefits for the tourism sector, but can also have potential mineral resources that can be explored for mining purposes, such as petroleum, natural gas and others. This potential makes it attractive to bring in investors to manage existing natural resources, and of course it will be a development function that is considered to help the government in equalizing development.

Marine items are the fundamental wellspring of occupation for seaside networks who live from marine items or it could be said that the monetary premise of waterfront networks is the

fisheries area. The high component of vulnerability in fishing, particularly for beach front networks, has turned into a typical discernment that creates in regards to the living necessities of fishing families and by and large seaside networks. The historical backdrop of destitution of families who rely upon what the ocean gives them, at that point, frequently turns into an image of the tension of the circumstance.

The strain of the circumstance experienced by seaside networks above permits the utilization of all means in using marine assets, including techniques that are not harmless to the ecosystem. This assertion isn't simply an issue, however a reality that happens and grows today in practically all areas in beach front regions in Indonesia. The populace in waterfront regions has a generally low monetary level, where in the west season, a few anglers don't go to the ocean and the vast majority of them just rely upon fish in the ocean. By taking a gander at the abovementioned, it is important to put forth attempts to foster elective occupations as one of the manners in which that should be focused on.

Assets in waterfront regions comprise of recoverable and non-recoverable regular assets, recoverable normal assets, for example, fisheries, kelp, seagrass beds, mangrove woodlands and coral reefs, while non-recoverable assets include: oil and gas, iron metal, sand, tin, bauxite, and different minerals and mining materials. Coordinated seaside the board is a way to deal with waterfront the executives that includes at least two environments, assets, and usage (improvement) exercises in a coordinated way to accomplish feasible advancement of beach front regions. For this situation, joining contains three aspects: sectoral, logical fields, and biological linkages.

Sectoral integration necessitates task, authority, and responsibility coordination among sectors or government agencies. The management of coastal areas should be carried out using an interdisciplinary approach that involves the scientific fields of economics, ecology, engineering, sociology, law, and other relevant fields. This is known as scientific integration. Given that a management consists of three main stages: planning, implementation, monitoring and evaluation, the integration needs to be applied from the planning stage to evaluation.

Coastal areas are currently under increasing pressure from pollution erosion, climate change, urbanization, and tourism. These pressures directly or indirectly affect the entire ecosystem, not only the wildlife that live there but also the economy and human welfare. For this reason, coastal management is considered to be a very crucial matter that requires integrated and comprehensive management. A concept offered in coastal management is ICZM. ICZM (Integrated Coastal Zone Management) is a comprehensive approach known in coastal area management. ICZM is a guideline for managing coastal areas in an integrated manner. The methodology of ICZM has been carefully developed over the past few decades. The concept requires institutional capacity to deal with intersectoral issues such as cross-disciplines, authorities of government agencies, and institutional boundaries.[7]

As a consequence of being an archipelagic country, coastal areas in Indonesia are developing into areas of rapid growth, given that coastal areas can provide spaces with high accessibility and are relatively inexpensive compared to inland spaces. Therefore, coastal areas have become a destination for population movement. Nearly 60% of the population in major cities, such as Jakarta, Surabaya, Semarang, Medan, and Makassar spread to coastal areas. [8]

ICZM is a recognized comprehensive approach to coastal area management, in the form of policies consisting of institutional frameworks and legal authorities required in the development and management planning for coastal areas that are integrated with environmental objectives and involve all relevant sectors. The goal of ICZM is to maximize the potential benefits of coastal areas and minimize the negative impacts of coastal area management, both on natural resources and the environment.[9]

Coordination is one of the main factors as well as an important issue in the management of coastal and marine areas. This cannot be separated from the multiuse function of coastal areas so that it is complex, coastal areas are a complex system that needs comprehensive attention and uses a systems approach. Coordination is one of the most important and perhaps most difficult factors in coastal and marine management practices. Coordination is important and still a major issue in coastal and marine management due to power of authority and funding issues. Coordination is an important factor that can bring all stakeholders into the process of planning, design and implementation of coastal management. Coordination is aimed at the following:

1. Promote and Strengthen multi-institutional communication.
2. Provide a forum/media for negotiation and conflict resolution.
3. Reduce competition by minimizing overlaps and gaps in the division of responsibilities,

In addition, coordination in the context of the level of implementation and objectives can be classified into 3 (three) types as follows.

1. Vertical coordination, where the implementation of coordination occurs in vertical agencies, namely the center, provinces, and districts/cities.
2. Horizontal coordination, where the implementation of coordination occurs between horizontal agencies, for example between technical agencies within one level of provincial or regional government.
3. Temporal coordination, where the implementation of coordination is based on time, for example how current activities can be identified for future impact.

In relation to marine pollution, vertical coordination between the central and local governments should be realized in the coordination between districts/provinces (represented by BPLHD/Bapedalda institutions) and the central government, in this case the Ministry of Environment. This overlap and lack of coordination is still felt because it is closely related to regional authority in licensing an activity that has the potential to cause marine pollution. Permits

for the implementation of activities to a certain scale are issued by the regent/governor and are sometimes still a weakness in the implementation of coastal and marine pollution monitoring.

This issue is also related to the ability of institutions related to the management of coastal and marine areas, not in the context of hardware, such as technology or facilities, but rather the elements of management of the process, dynamics and countermeasures of pollution. This can be identified especially for the case of the ability of institutions at the regional level that are still not optimal in carrying out the function of prevention and mitigation of pollution in coastal and marine areas.

Another issue is the law at both the national level and within technical departments. In the context of marine pollution control, some departments have their own internal regulations related to marine pollution while others do not. The Departments of Maritime Affairs and Fisheries, Energy and Mineral Resources and Transportation already have a set of laws and regulations on pollution control, while some other departments do not and still refer to regulations issued by the Ministry of Environment. The main regulations on the management of coastal and marine areas issued by the Environment are general in nature and do not regulate technically on activities that are the authority of technical departments. Oil and gas exploration and exploitation, shipping and port activities and coastal and marine tourism require detailed and technical regulations from each department.

The effectiveness of marine protected area management is a challenge for Indonesia, which has committed to contributing to the achievement of the 2030 SDGs. In the SDGs, the management and protection of marine ecosystems is a goal and has its own targets. Managing coastal marine areas still faces challenges to date. One that is always faced, is due to the existence of different policies through the regulation of regional spatial plans (RTRW) with zoning plans for coastal areas and small islands (RZWP3K).

The long-standing differences, starting in 2022, are slowly eliminated by integrating the two regulations into the technical content of coastal waters throughout Indonesia. The Ministry of Maritime Affairs and Fisheries, which serves as the leader in the integration process, continues to oversee each process in 34 provinces. However, so far only South Sulawesi Province has passed a regulation on the integration of RTRW with RZWP3K.

Small islands and coastal areas naturally possess a unique, ecologically balanced environment with numerous potentials that are interconnected and highly adaptable. Changes in a single biological system will rapidly influence different environments around it, so cautious administration is required, to be specific by thinking about the conveying limit and conveying limit of the climate and the socio-social climate of seaside and little island networks.

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In terms of defense and security, the main problem that greatly disrupts the management of fish resources to date is the high level of Illegal fishing is an important factor causing the low performance of capture fisheries and is a threat to the conservation of marine areas that are carried out. Illegal fishing disruption to marine protected areas is due to the fact that until now, conservation areas have not been entirely mapped in international shipping maps, so that violations committed are very detrimental to conservation areas and firm action cannot be taken regarding the weak regulatory tools related to the geographical position of conservation areas. With the country's limited conditions, especially sea power for surveillance and operations at sea, synergy is needed between law enforcement officers at sea and cooperation with conservation area managers. The function of the fisheries court must also be enforced along with awareness efforts, which are expected to be able to bind defense and security in the sea area, so that the function of conservation for national defense and security can be optimized.

The picture of the great biological potential of the sea, in the midst of the poverty of the people who are still concerned, especially in coastal areas and small islands, needs to be a concern that the exploitation of marine fisheries resources both biological and non-biological is still not able to sustain community food security, still not able to improve the welfare of the community. Moreover, this nation has long been lulled by its terrestrial preparations.

The multipotential condition of the Indonesian territory is further strengthened by the location of Indonesia in the cross position of oceans and continents. In terms of the distribution of islands that bind the archipelago, there are 111 outer islands. The border of the Republic of Indonesia on land borders with 3 countries and at sea borders with 10 countries. The potential of this region has not been evenly managed well, in some areas there is overfishing and in others underfishing. The development of conservation areas as a balance for economic and environmental utilization is still uneven.

The World Biodiversity Convention agreed to conserve an area of at least 10% of the country's waters, meaning that Indonesia has an obligation to support the balance of development in its marine areas by establishing conservation areas of up to 31 million hectares. The government aims to achieve this by 2030. A comprehensive strategy for managing marine resources, through the development of marine, coastal and island conservation areas that can contribute to the development of maritime power for food sovereignty of coastal communities and national resilience.

Protection has now turned into an interest and need that should be met as a harmonization of the financial necessities of society and the craving to keep on safeguarding existing assets for what's to come. Marine safeguarded regions are characterized as safeguarded water regions, dealt with a

drafting framework, to acknowledge reasonable administration of fish assets and the climate. This zoning system in the management of marine protected areas opens up space for fisheries utilization and other sustainable uses for the community, which at the same time confirms that the conservation paradigm is not only protection but also open to utilization for the welfare of the community. This effort needs to be followed up with effective management to realize sustainable fish resource management. In addition, it is necessary to strengthen regional development networks in strategic political areas of conservation value, including in the outer islands. The role of conservation areas in Indonesia's geopolitical view is very strategic in order to bind the unity of the potential and biodiversity of Indonesia's marine waters and islands, so that their utilization can be as optimal as possible for the livelihoods of fishing communities in coastal areas and small islands.

An ideal conservation area that is effectively managed is an important asset for realizing sustainable fisheries to foster community economic security. This is also in line with the mandate of Law No. 1/2014 on the Amendment to Law No. 27/2007 on Coastal and Small Island Management which encourages the economic utilization of conservation areas in coastal areas and small islands. Marine Protected Areas are an effective tool in supporting sustainable fisheries, which means long-term sustainability and stability of production, favoring fishermen, and supporting habitat improvement.

Marine Protected Areas can be used as one of the tools for effective management of coastal and marine resources, namely through allocating part of the coastal and marine areas as a refuge for economically important fish to spawn and breed properly, healthy coral reef ecosystem conditions, and provide a refuge for fish resources, will have an impact on increasing fish resources in the surrounding area which is an important fishing area for coastal communities, so that the impact of conservation of water areas will directly support fisheries activities, as well as various utilization of conservation areas managed based on a zoning system for various purposes such as marine tourism and environmental education that can strengthen the economic joints of coastal communities, build political awareness and simultaneously increase the nation's national resilience.

National development must always be carried out in a synergistic-integrated manner through policy harmonization with a new ocean-oriented paradigm so as to strengthen the implementation of effective conservation area management based on a zoning system and decentralized to optimize national and regional economic growth and global environmental sustainability. Optimizing the management of coastal areas and small islands through sustainable conservation is a shared responsibility of all parties implemented comprehensively to strengthen National Resilience and integrally built on community involvement and stakeholders in a joint commitment. The implementation of the Archipelago Concept in the Management of Marine Protected Areas is able to integrate the reality (territoriality) of Indonesian sea waters, a unified network of archipelagic land and air space and the phenomenon (utilization) of utilizing all natural resources, with all

national potential to realize prosperity, welfare and security in the unitary state of the Republic of Indonesia.

Improved understanding and management of marine protected areas through institutional strengthening (governance), management of area resources (bioecological) and social and economic management of the community that is carried out effectively and sustainably, can be achieved through good management planning and zoning management, the availability of competent human resources and management institutions, The availability of good infrastructure and supporting facilities, as well as regional management efforts carried out in a synergistic and integrated manner to ensure the sustainability of aquatic, coastal and small island resources that prosper the food sovereign community, fairly and equitably, with an archipelago perspective towards the creation of national resilience. [9]

4 Conclusions and Suggestions

4.1 Conclusion

The national maritime policy plays a crucial role in supporting the sustainability of marine resources in Indonesia, especially in empowering coastal communities to be actively involved in marine resource management. The policy includes various initiatives such as education and training, livelihood diversification, access to technology and resources, participation in decision-making, and financial support and incentives.

However, the implementation of marine conservation policies in Indonesia is faced with a number of key challenges, including a lack of inter-agency coordination, limited financial and human resources, weak law enforcement, economic and social pressures, climate change impacts, low public awareness and education, conflicts of interest, and limited technology and infrastructure. Addressing these challenges requires a comprehensive and coordinated approach.

4.2 Advice

The role of national maritime policy in empowering coastal communities to engage in the sustainable management of marine resources and the main challenges faced in the implementation of marine conservation policy in Indonesia, can establish a special coordinating body involving all relevant agencies in marine resource management to reduce overlapping policies and improve synergies between agencies, allocate a larger and sustainable budget for marine conservation programs and empowerment of coastal communities, and improve training and education for the relevant workforce.

In capacity and resource building, allocate a larger and sustainable budget for marine conservation programs and empowerment of coastal communities, and improve training and education for the relevant workforce. Improve law enforcement through more intensive marine patrols, the use of modern monitoring technology, and the application of strict sanctions against violations.

References

- [1] A. Ramadhan and M. A. L. Kareem, “How to Resolve the Overlapping Maritime Claims in International Law? Comparing Barbados Trinidad vs Tobago case and Indonesia-Malaysia Cases,” *International Law Discourse in Southeast Asia*, vol. 1, no. 2, pp. 185–216, Jul. 2022, doi: 10.15294/ildisea.v1i2.58392.
- [2] W. V. Izziyana, S. O. Matompo, and A. Y. Rimbawan, “The Development of International and National Sovereignty of the Law of the Sea in the Perspective of Philosophical Analysis,” *Jurnal Justiciabelen*, vol. 6, no. 1, 2023.
- [3] A. Suwardi and Z. Fakhruulloh, “Reposition Of Authority Between State Institutions in Arrangements Relating to National Maritime Security Defense,” European Alliance for Innovation n.o., Aug. 2022. doi: 10.4108/eai.16-4-2022.2320084.
- [4] Riswadi and A. Santoso, “Legal Principles in Utilizing Fish Resources in the ZEEI to Make Indonesia a World Maritime Axis,” in *Proceedings of the 3rd Multidisciplinary International Conference (MIC)*, European Alliance for Innovation n.o., Dec. 2023. doi: 10.4108/eai.28-10-2023.2341703.
- [5] B. J. Nasution, *Metode Penelitian Hukum*. Bandung : Mandar Maju, 2012.
- [6] R. Dahuri, J. Rais, S. P. Ginting, and Sitepu, *Pengelolaan Sumber Daya Wilayah Pesisir dan Lautan Secara Terpadu*, 4th ed. Jakarta: PT. Pradnya Paramita, 2008.
- [7] D. Hinrichsen, *Coastal Waters of the World: Trends, Threats, and Strategies*. Washington DC: Island Press, 1998.
- [8] “Managing the Indonesia Marine and Coastal Environment: The Role of Monitoring Activities,” in *Proceeding Workshop on Technology Application on Marine Environmental Monitoring, Forecasting and Information System*, Jakarta, 1999.
- [9] J. C. Post and C. G. Lundin, *Guidelines for Integrated Coastal Zone Management*, vol. 9. Washington DC, 1996.