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Progress and Legal Framework Issues in the Establishment and Control of Indonesian Marine Protected Areas

Adrian Nugraha^{a,b,*}, Febrian^b and Robert Lihtorng Chen^a

^a*Institute of the Law of the Sea, National Taiwan Ocean University, Keelung, Taiwan*

^b*Faculty of Law, Sriwijaya University, Indralaya, Ogan Ilir, South Sumatera, Indonesia*

Abstract. This study aims to analyze the progress and issues of Indonesia's marine protected area establishment and control. It addresses the legal framework and issues, such as unclear mandates, lack of coordination, and local stakeholders' involvement in their establishment and control. The legal framework discussion aims to explain the complicated issues of the new Local Government Act promulgation. Furthermore, it provides alternative solutions through amending several provisions of the new Local Government Act associated with marine and coastal control. Firstly, inserting provisions regarding the Archipelagic County. Secondly, altering several articles related to the authority to manage marine resources. Thirdly, inserting provisions related to the jurisdiction of the Central Government in determining the classification and categorization of marine resource management. Fourthly, amending the articles in the new Local Government Act related to foreign affairs arrangement in the border area. In addition, this article concluded that a proper legal framework encourages sustainable marine and coastal management.

Keywords: Conservation, control, decentralization, government, legal framework, marine protected areas

As an archipelagic country with over 17,500 islands and 99,093 km of coastline, Indonesia has become the largest and most prominent shoreline in the world in terms of commercial activity.^{1, 2} In 75% of counties and cities, the borders are made up of coastal areas. In addition, over 170 million people, or 63% of the total population, live around 45 kilometers from the coastline.³ Indonesia possesses 27.2% of all species of marine flora and fauna found in the world. These species comprise 12% of mammals; 23% amphibians; 31.8% reptilian; 44.7% fish; 40% mollusc; and 8.6% seaweed.⁴ These data therefore prove that the country is rich in marine and coastal resources.

Beside the numerous potential coastal and marine resources, the country still faces some obstacles in terms of resource management. Overfishing, land

area development, and pollution threaten the marine ecosystem's sustainability.^{5, 6} Furthermore, sectoral conflicts over resource management among government agencies have significantly worsened the situation.

Several attempts were made by the government to protect and preserve marine ecosystems. One such effort was the establishment of the marine protected area. Other states have also continued to increase awareness on the protection of the marine environment through various national strategic initiatives.⁷ Marine protected areas (MPAs) are a useful strategy for conserving coastal and marine resources, which have been widely accepted by the global community.⁸⁻¹⁰ Many scientists believe that proper MPAs management prevents habitat destruction and decrease in fish populations.¹¹⁻¹³ Therefore, proper and sustainable control is required for Indonesia's enormous marine natural resources.

*Corresponding author. E-mail: adriannugraha@fh.unsri.ac.id; ORCID: 0000-0001-6134-493X.

This study discusses the progress and problems of the legal framework in the Indonesian MPAs establishment and control. The discussion of the legal framework issues focused on the decentralization of natural resource management by the central and local governments. Furthermore, this study offers alternative solutions to improve regulations related to the establishment and management of MPAs.

1. Methods

In this study, five regulations pertinent to the establishment and control of Indonesian marine protected areas were discussed. These regulations include the Act 5/1990 on the Biological Resources and Ecosystems Conservation, the Act 32/2004 and the Act 23/2014 on Local Government, the Government Regulation 60/2007 on Fish Resources Conservation, and the Government Regulation 28/2011 on Management of the Nature Reserve and Nature Conservation Area. Specifically, it analyzed the progress of the establishment and control of marine protected areas, including related legal framework issues and corresponding solutions. Furthermore, actual field data was obtained via interviews. These involved a semi-structured questionnaire with ten participants at the central and regional government marine and fisheries offices, to examine progress and problems in establishing and controlling MPAs. All findings were interpreted, analyzed, and presented qualitatively.

2. Results and Discussion

2.1. *The Progress of Indonesian Marine Protected Areas Establishment and Control*

The Indonesian government established the first marine protected areas in 1975, which were two in number, namely the Kepulauan Seribu Marine National Park in Jakarta, and Bunaken Marine National Park, located in the North Sulawesi Province.¹⁴ However, until the early 1980s, the marine protected area concept was merely a 'paper tiger' due to weak law enforcement and ineffective governance. In theory, the initial effort to establish marine protected areas were good, but not in practice.

The concept of marine protected areas were recognized in 1980 when the massive exploitation of marine resources, overfishing, and food crises in various parts of the world resulted from flooding.¹⁵ In 1982, the Law of the Sea (LOS) Convention provided a legal basis at the international level, followed by the 1992 Convention on Biological Diversity (CBD). The United Nations opined that the CBD establishment in 1992 was substantial to protect biodiversity and prevent their damage. The establishment of marine protected areas is one method for implementing the CBD mandate.^{16, 17} Currently, the total area of global marine protected areas reaches 27 million km², representing 7.4% of the world's oceans.¹⁸

The term marine protected area adopted by stakeholders and government agencies describes conservation areas in coastal and marine areas. There are various terms for Indonesia's MPAs, which is dependent on the agencies that administer these zones. There are three leading agencies in charge of managing MPAs, namely the Marine Affairs and Fisheries Ministry, Environment and Forestry Ministry and Local Governments (Provincial and City / County).

The Environment and Forestry Ministry mentioned two types of 'natural protected areas' in the Act 5/1990 on the Conservation of Biological Resources and Ecosystems, as areas of sustainability and reserve. The nature reserve area consists of wildlife reserves and a strict nature reserve area. Subsequently, the Government Regulation 28/ 2011 on the Management of the Nature Reserve and Nature Conservation Area, divided the nature reserve into two types: nature reserves and wildlife reserves. Meanwhile, nature conservation areas include national, grand forest, and nature tourism parks.

The Marine Affairs and Fisheries Ministry defined the marine protected area as an 'area of fisheries sanctuary,' referring to the Government Regulation 60/2007 on the Conservation of Fish Resources. Furthermore, the local government uses the term locally managed marine areas interchangeably with marine protected areas. These terms follow the definition of MPAs from the International Union for Conservation of Nature (IUCN).

After the promulgation of Act 5/1994 on the Ratification of Convention on Biological Diversity, the number of marine protected areas increased dramatically. In 2010, Indonesia had only 82 MPAs,

Table 1
Status of Indonesia's Marine Protected Areas 2019

Government Types of Areas Institutions		Unit	Extent (Hectare)
Marine Affairs and Fisheries Ministry	Aquatic National Park	1	3,355,352.82
	Aquatic Sanctuary	3	445,630
	Aquatic Tourism Park	6	1,541,040
	Total	10	5,342,023.02
Local Government (Provincial Government)	Locally Managed Marine Areas	137	10,901,101.76
	Total	147	10,901,101.76
Environment and Forestry Ministry	Marine National Park	7	4,043,541.30
	Marine Tourism Park	14	491,248
	Wildlife Reserve	4	5,400
	Nature Reserve	7	91,820
	Total	30	4,632,009.30
TOTAL NUMBER	177	20,875,134.08	

Source: Indonesian Marine Affairs and Fisheries Ministry, 2019 (Retyped).

with a total area of 13.9 million hectares.¹⁹ In 2019, the number had increased dramatically to 177, with a total area of 20.87 million hectares. (See Table 1).

Furthermore, other driving factors result in an increase in the number of Indonesia's marine protected areas. The first was the alteration in the Indonesian regime, from autocracy to decentralization. The Act Number 32/2004 concerning Local Government has given the mandate to manage marine natural resources to local governments (provincial and city/county governments).²⁰ This Act stipulated that the provincial government has the jurisdiction to manage these resources up to 12 nautical miles (nm) from the coastline. In contrast, county/city governments can manage marine resources up to 4 nautical miles. When the marine area between 2 provinces is less than twenty-four nautical miles, the jurisdiction to manage resources in this area is shared equally or measured according to the principle of the diameter of the area between both provinces. Therefore, county/city governments get one third of the territorial authority of the province. This Act has provided a legal basis for the government, stakeholders, and the community to develop many marine protected areas in Indonesia.

The second factor was the increasing awareness of the government in the sustainable management of marine resources, which is evident in the approval of the marine protected areas concept in the government's official policy. This draft was

established in the state policy outlines in 1998.²¹ According to this document, the marine and coastal area management are required to pay attention to the natural resources and environment. In addition, the government declared a target of developing 10 million hectares of marine protected areas until 2010, at the 2006 Convention on Biological Diversity.²² At the 2009 World Ocean Conference, the government established a target to achieve twenty million hectares in MPAs until 2020.

2.2. Legal Framework Issues

Proper management of MPAs require effective regulation²³ which necessitates the analysis of the recent status of rules governing their control. This includes the laws ruling sea and coastal resources.

After a decade of the regional autonomy system, Indonesia has returned to a centralized regime in managing marine and coastal resources. The government promulgated Act 23/2014 of the Local Government, which replaced the previous legislation, namely the Act 32/2004. The new Local Government Act (Act 23/2014) raised problems in the decentralized marine and coastal management system. The impacts of changing Local Government Act on marine and coastal management (Planning, Utilization, Supervision, and Control) are shown in Table 2.

The old Local Government Act (Act 32/2004) gave the provincial government the authority to

Table 2
Patterns of Marine and Coastal Management Due to Changes in Local Government Act

Criteria	Management Pattern	
	The Act 32/2004	The Act 23/2014
Planning Documents	County Governments have the authority to formulate zoning, management and action plans to manage marine and coastal areas consisting of land and water, as far as 4 miles from the coastline.	The authority to compile zoning, management, and action plans to manage marine and coastal areas as far as 12 Nautical Miles from the coastline rests entirely with the Provincial Government.
Zone Delineation	The Provincial Government can manage marine resources up to 12 nautical miles from the coastline to the high seas and/or towards archipelagic waters and four nautical miles from the Provincial jurisdiction, under the authority of the County Government.	The four nautical mile authority owned by the County Government has been revoked, and the authority to manage marine resources up to the limit of 12 nautical miles from the coastline to the high seas and/or to archipelagic waters belongs entirely to the Provincial Government.
Utilization Permit	The regent or mayor giving management and location permits in marine and coastal areas reserves the right to revoke these permits according to their authority.	When the authority for marine and coastal management owned by the Regent and Mayor is revoked, the granting and revocation of management and location permits up to a limit of 12 nautical miles is the full authority of the Governor.
Supervision	The County / City Government is charged with the supervision, planning and implementation of management of marine and coastal areas along 0-4 nautical miles.	The Provincial Government thoroughly performs the supervision, planning and implementation of marine and coastal management.
Control	The Regent or Mayor has the authority to compile and propose a proposal for the accreditation of marine and coastal management, which becomes the governor's authority following the guidelines and standards.	The authority to formulate and propose a marine and coastal management accreditation program previously owned by Regent and Mayor has been revoked, and this program is entirely under the Governor's authority.

Source: The Act 32/2004 and The Act 23/2014 Concerning Local Government.

regulate marine and coastal resources, 12 nautical miles from the baseline. Furthermore, County / City Governments have the jurisdiction to control coastal and marine resources along four nautical miles from the baseline. County / City Government jurisdiction is presently entirely authorized by by the Provincial Government. In addition, local governments (provincial / county/city) are not authorized to establish MPAs in their territorial waters. In the new Local Government Act, the authority to establish a marine protected area rests entirely in the Central Government's hands.

This issue of centralized authority has hindered the success of marine conservation efforts in Indonesia. Whereas, the increase in the total and number of marine protected areas in the past fifteen years occurred due to the promulgation of the previous Local Government Act. The Act 32/2004 authorized local governments, (provincial / county/city), stakeholders and local communities to establish MPAs in their territorial waters. Consequently, the promulgation of this Act 23/2014 will adversely affect the enthusiasm of local communities to protect the marine ecosystem. The

lack of communities and the local government's role in protecting coastal and marine areas will influence the sustainability of the 20 million hectares MPA program. Therefore, Indonesia's MPA program's sustainability issue became a serious concern among several academics.^{24, 25}

The abolition of the jurisdiction of the county/city governments to manage coastal and marine areas will result in the closure of all fisheries and marine regional offices. In addition, the loss of adequate work in the fisheries and marine offices at the county/city level will result in some employees feeling hopeless and confused.

Act 23/2014 also influences the implementation of Indonesian marine conservation. Although, in the present authority of coastal and marine management, protection, and conservation is vested in the provincial government, and the success of its control depends on several aspects which include facilities, funds, and skilled staff. Some practitioners and academics hesitated about the provincial government's capability to exercise their authority.^{26, 27} This occurred because most of them do not have sufficient funds and skilled staff.

Law enforcement in fisheries and marine affairs is one of the critical aspects of sustainable coastal and marine control.²⁸ Nevertheless, this aspect is highly complicated to implement, as the jurisdiction of the county/city government has been taken over by the provincial. This occurred due to the vast sea area that has to be regulated by the provincial government, as most have vast coastal and marine zones. Provincial governments will undergo difficulties in implementing law enforcement in their territorial waters. For instance: The Provincial Government of South Sulawesi permits fishing vessels under 30 Gross Tonnage to catch fish around the Taka Bonerate marine area. The question is, how does the South Sulawesi Provincial Government oversee this activity? Taka Bonerate marine area is remote, situated at a distance from the South Sulawesi province capital in Makassar. In addition, the lack of funds, infrastructure, and employee capacity will make it difficult for the provincial government to conduct surveillance. Weak law enforcement and lack of supervision will cause massive damage to coastal and marine resources.^{29, 30}

Based on these conditions, it can be concluded that the promulgation of Act 23/2014 could harm the marine protected areas' progress, and disrupt programs of marine conservation decentralization. This impedes marine control and regulation at the local government level.

2.3. Alternative Solutions

The academic revision text of the former Local Government Act (Act 32/2004) mentioned two objectives for altering this Act. First, revoke the county/city government's authority to be handed over to the central or provincial governments. The second was to empower the provincial government. Moreover, this text declares that the provincial represents the central government as autonomous. Therefore, the provincial government plays two roles at once. The transfer of authority is not only at the local level (county/city to provincial governments), but also involves transfers from the local to the central government.

The new Local Government Act signifies a decline in the decentralized management of marine and coastal areas. Therefore, a legislative process is required to alter the new Local Government Act. This is necessary to propose the return of authority of the city/county government to manage coastal

and marine resources. Indeed, not all county/city governments have the capacity to manage MPAs properly. However, the decentralization process has made much progress in the regulation of MPAs.

The new Local Government Act's main objective is to improve people's welfare and provide maximum public services. However, there is a contradiction in the purpose of this Act. The transfer of county/city government authority to the provincial government has made it difficult for the community to obtain government services. The procedure is presently very complicated because all government services are performed in the province's capital. Therefore, this new Local Government Act does not reflect its primary purpose.

This new Act recognizes the existence of the Archipelagic Province, but does not solve complicated issues in the management of MPAs. In addition, it does not consider the geographical relationship between the province and city/county governments under its authority. This shows that the central authority is equating control methods in aquatic and terrestrial areas.

This method is mistaken because the coastal and marine zones are unique and require specific management. In addition to meeting elementary necessities, marine area management requires collaboration and speed among stakeholders to resolve maritime issues. For instance, in 2018, the Ocean Princess oil tanker ship had sunk and caused pollution in the coastal area of Alor County. The Alor County Government was not authorized to resolve this issue, as the maritime and fisheries office has been closed. The entire problem was then solved by the Provincial Government of East Nusa Tenggara.

Nevertheless, the distance from Kupang (the capital of East Nusa Tenggara Province) to Alor County is around 296 km, and the trip from Kupang to Alor takes eight hours by boat. The accident had damaged marine biota in the Alor nature reserve conservation area, even before the provincial marine office staff came to do the damage survey. The damage to this local marine ecosystem will also impact global ecosystems.

The experience in various countries show that coastal and marine areas' successful management is closely related to the jurisdiction's decentralization process from the central to the local government.³¹⁻³³ The government and stakeholders' engagement in each of these management processes will result in integrated marine and coastal

management. The joint control of marine resources between local governments and communities is far better than a centralized system.³⁴

The management of marine and coastal areas in Indonesia is quite complicated. Therefore, an integrated management approach is a solution to overcome sectoral ego interests. An override in the role of local government and communities will lead to conflicts in marine and coastal management.

Amendments of the new Local Government Act (Act 23/2014) related to marine resource management are essential, as several clauses in this Act require alterations. Firstly, provisions have to be added regarding the Archipelagic County. It is significant to recognize the distinct maritime characteristics in this zone. Secondly, the alteration of several articles related to the authority to manage marine resources, including the MPA. The management authority has to re-engage the County / City Government as in the former Local Government Act (Act 32/2004). Thirdly, the addition of provisions regarding the Central Government's authority in determining the classification and categorization of marine resources management, including MPAs. The Local Government (Province) has to carry out the management that has been assigned, while the Central is obliged to monitor and ensure that the Local Government implements the enacted provisions. Fourthly, amending the articles in the new Local Government Act related to foreign affairs arrangement in the border area. These provisions relate to transnational crime, and county governments are well aware of these areas. Therefore, it is significant to engage the county government in negotiations with countries around the border. These help to clarify the government's tasks and functions in managing marine and coastal areas, including the MPA.

3. Conclusion

The progress of the establishment of marine protected areas in Indonesia has presently reached the desired target of 20 million hectares, which stems from two main factors: Firstly, the former Local Government Act (Act 32/2004) has changed the marine and coastal management regime in Indonesia from autocracy to decentralized. Secondly, it was due to the increasing commitment

of the government in managing natural resources in a sustainable manner.

However, despite the success in achieving these targets, there are some issues in the legal framework of decentralized marine resource management. These issues arise when the new Local Government Act replaces the old one. Therefore, this new legislation changed the decentralization regime back to autocracy. The Provincial Government takes over the authority of the County / City to manage and maintain marine resources. As a result, MPA control was difficult, specifically in monitoring areas distant from the provincial capital. In addition, another problem that may occur is conflict in the management and use of MPA, as communities and local governments are not involved. Furthermore, the Archipelagic Province creates new problems because it does not consider the geographical relationship between the province and county governments under its authority.

This study offers solutions to resolve these issues. The first is the restoration of county/ city government authority to participate in managing marine and coastal resources. The second is to insert provisions on the Archipelagic County to determine maritime characteristics in the County area. Thirdly, enacting provisions regarding the classification and categorization of marine management initiated by the Central Government and implemented by the Local. Fourthly, involving district governments in negotiations with border countries.

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Endnotes

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