

Legal Regulations for Shrimp Ponds in Coastal Areas in NTB

Nathania Permata¹, Hera Alvina²

Universitas Mataram

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Abstract

Indonesia's coastal areas hold strategic value as productive areas that support economic activity, one of which is through shrimp farming. West Nusa Tenggara (NTB) is one of the main centers of national shrimp production, contributing significantly to foreign exchange and employment. However, the rapid expansion of shrimp farming has given rise to environmental, social, and legal issues, primarily due to the lack of specific regulations at the regional level governing sustainable shrimp farming management. This lack of regulation has resulted in weak oversight, a high potential for coastal water pollution, mangrove ecosystem degradation, and conflicts over land use. This study aims to analyze the legal regulations regarding shrimp farming in the coastal areas of NTB province and to identify emerging legal challenges. This study uses normative legal methods with a statutory and conceptual approach. The research findings show that while national legal frameworks such as the Fisheries Law, the Coastal Area and Small Islands Management Law (PWPPK), and their derivative regulations provide a general basis for spatial planning and licensing, their implementation at the regional level still faces regulatory gaps, as evidenced by low compliance with shrimp pond permits in West Nusa Tenggara (NTB). This highlights the urgency of establishing a specific Regional Regulation (Perda) in NTB to ensure alignment between economic development and coastal ecosystem protection. Clear regulations are expected to ensure the sustainability of shrimp farming businesses while maintaining a balance between economic interests, the environment, and the well-being of coastal communities.

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Corresponding Author:

Nathania Permata

Universitas Mataram

Email: nathaniasatriawan@staff.unram.ac.id

1. INTRODUCTION

Background

Coastal areas in Indonesia play a strategic role as interaction zones between land and sea, while also serving as productive areas for various economic activities such as fisheries and shrimp farming. West Nusa Tenggara, abbreviated to NTB, is one of Indonesia's leading shrimp farming centers with significant potential. This archipelago province, comprising the islands of Lombok and Sumbawa, encompasses over 29,000 km² of coastal waters.² and a coastline of 2,332 km² [1], [2] Since 2020, NTB's aquaculture production has also continued to increase, from 90,016.59 tons to 54,440.36 tons in 2022.

The shrimp farming sector plays a vital role in the NTB economy, particularly as a source of livelihood for coastal communities. This cultivation activity absorbs a large workforce, from the farmer level, through processing, to market distribution. The shrimp farming industry contributes significantly to the country's foreign exchange earnings through exports, particularly to countries such as the United States, Japan, and European countries. Small- to large-scale shrimp farms are spread across various coastal areas, such

as Lampung, East Java, South Sulawesi, and Nusa Tenggara. This business also creates jobs, both directly in the cultivation sector and indirectly in supporting sectors such as processing, feed distribution, and export.[3]

Besides absorbing labor, shrimp farming also has the attraction of increasing regional revenue. Increased shrimp production contributes to regional taxes and opens up investment opportunities in the fisheries sector. Based on data from the Ministry of Maritime Affairs and Fisheries, in 2023 alone, the largest shrimp production center in Indonesia was located in West Nusa Tenggara Province with a production volume of 186,368 tons.[4] The fisheries and marine sector can have a significant impact on reducing poverty in the regions where it is developed, due to increased community income from productive activities. In addition, the shrimp market is predicted to grow by 4.01 percent per year in the 2022-2027 period, which is estimated to increase by USD 6.49 billion.[4]

The significant impact of shrimp farming poses significant challenges, as there is currently no specific regulation, either in the form of a Regional Regulation, specifically addressing shrimp farming. Shrimp farming management in West Nusa Tenggara (NTB) is largely governed by central regulations, such as Government Regulation No. 28 concerning the Implementation of Risk-Based Business Licensing. This regulation replaces Government Regulation No. 5 of 2021, streamlining the licensing process, accelerating investment growth, and aligning national licensing with an integrated digital system. However, before undertaking the licensing process, shrimp farm owners must ensure compliance with spatial use regulations, specifically the regional spatial plan.

In this case, shrimp farming activities involve the use of coastal land, which is naturally vulnerable to land use conflicts. Without regional regulations, the potential for ecosystem damage will undoubtedly increase. This will lead to a decline in coastal water quality, ultimately leading to decreased pond productivity. Furthermore, there are social impacts, such as coastal communities being vulnerable to long-term loss of livelihoods. This also has long-term environmental impacts, given that the ocean is one of the most important components of living ecosystems.

Without regulation, shrimp farming in coastal areas risks environmental damage, land conflicts, legal uncertainty, and long-term economic losses. Regulations are needed to regulate zoning, environmental standards, business permits, and protect coastal ecosystems to ensure sustainable shrimp farming.

The use of space that must be in accordance with the national, provincial, district/city Spatial Planning is regulated in Law Number 26 of 2007 concerning Spatial Planning. The use of coastal areas must be in accordance with the zoning and spatial planning provisions regulated in the Regional Spatial Planning (RTRW) and the Coastal Area and Small Islands Zoning Plan (RZWP3K). Law No. 27 of 2007 concerning the Management of Coastal Areas and Small Islands (PWP3K) which has been amended by Law No. 1 of 2014 regulates the legal status and use of coastal land.

Problem Formulation

What is the legal policy for regulating shrimp ponds on the coast of NTB?

2. RESEARCH METHOD

This research is normative, focusing on the study of applicable positive legal norms. The approach used is a statutory approach, examining various regulations related to shrimp pond management, such as Law Number 31 of 2004 concerning Fisheries, Law Number 1 of 2014 concerning the Management of Coastal Areas and Small Islands, Government Regulation Number 22 of 2021 concerning the Implementation of Environmental

Protection and Management, and Government Regulation Number 28 of 2021 concerning the Implementation of Risk-Based Business Licensing.

Furthermore, this study employs a conceptual approach by analyzing the principles of sustainability, justice, and environmental preservation relevant to the context of coastal spatial planning. Primary legal materials include legislation, while secondary legal materials include scientific literature, legal journals, and previous research findings.

Research purposes

Analyzing legal regulations related to shrimp ponds in the context of spatial planning in NTB.

3. RESULTS AND DISCUSSION

Indonesia has abundant and highly valuable natural resources. Optimal utilization of this wealth is crucial to ensuring the well-being of all Indonesians. Management of this natural resource potential must be based on established principles, including justice, benefit, independence, sustainability, and preservation. This is in accordance with Article 3 paragraph (1) of Government Regulation Number 22 of 2021 concerning the implementation of environmental protection and management, hereinafter referred to as PP No. 22 of 2021, which states that environmental approval is mandatory for every business and/or activity that has a significant or non-significant impact on the environment.

The aquaculture sector, particularly shrimp farming, plays a vital role in Indonesia's national economy, but its rapid expansion often gives rise to complex environmental and social issues.[5] Shrimp ponds are places used to cultivate shrimp, which are usually located in coastal areas.[6]

For years, shrimp has been a leading Indonesian fishery commodity in the international market. This commodity even contributes significantly to the national fisheries trade balance. Shrimp consistently tops Indonesia's fishery exports annually, with the United States as its primary market. From January to September 2024 alone, shrimp contributed USD 1.18 billion, or 28.1 percent, to Indonesia's total fishery exports.[7]

Regulation of shrimp ponds in Indonesia is essentially within the framework of coastal area management and aquaculture. In Law Number 31 of 2004 concerning Fisheries, Article 18 paragraph (1) states that "The government regulates and fosters the use of water and fish farming land" and then in paragraph (3) states "The implementation of the use of water and fish farming land is carried out by the regional government." This law is the main legal framework in the fisheries sector. However, this law does not contain specific provisions related to shrimp ponds, but rather regulates general principles related to fish farming activities as a whole. The goal is to manage fish resources optimally, sustainably, and sustainably.[8]

Furthermore, Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands, hereinafter referred to as the PWPPK Law, and regulate This regulation focuses on the management of coastal areas and small islands, including planning, utilization, monitoring, and control of resources. The goal is to improve community well-being. Regulations regarding shrimp ponds are contained in more general provisions, including definitions of coastal waters, zoning plans, and management permits, which serve as the legal basis for spatial utilization and coastal area management.

The PWPPK Law basically regulates the authority of regional governments which is regulated in several articles which specifically state the authority of regional governments (provinces and districts/cities) in managing coastal areas and small islands, including:

Article 7: "States that provincial and district/city governments have the authority to manage coastal areas and small islands in accordance with their authority."

Article 16 Paragraph (1): "Grants authority to the regent or mayor to grant and revoke location permits in coastal waters and small islands."

Article 19 Paragraph (1): "Grants authority to the regent or mayor to grant and revoke Management Permits in coastal waters and small islands."

Article 27: "Establishes obligations for the government and regional governments to empower communities to improve their welfare."

In general, this law grants regional governments, particularly districts/cities, the authority to grant and revoke location permits and management permits, implement management programs, encourage community business activities, and provide legal assistance and guidance. Further provisions regarding the authority to issue location permits and management permits are regulated in Government Regulation Number 28 concerning the Implementation of Risk-Based Business Licensing, which is a derivative of Law Number 6 of 2023 concerning the Stipulation of Government Regulation in Lieu of Law Number 2 of 2022 concerning Job Creation into Law.

The enactment of Government Regulation No. 28 concerning the Implementation of Risk-Based Business Licensing is an effort to improve efficiency and ease of doing business. The licensing process for shrimp farming activities has now been simplified through an integrated service system centralized at the Ministry of Investment/Investment Coordinating Board, the institution formerly known as the Investment Coordinating Board. However, essential requirements remain in place, including alignment of spatial use with applicable land use plans and compliance with all provisions related to environmental approvals.

Based on these regulations, the lack of specific regulations governing shrimp farming in West Nusa Tenggara (NTB) poses a high level of urgency because it could trigger a series of serious negative impacts, both on the environment and the livelihoods of coastal communities. Without strong and clear regulations at the regional level, waste from shrimp farms, such as leftover feed, feces, and chemicals, could be discharged uncontrolled into coastal waters. This will lead to water pollution, eutrophication, and a decline in overall water quality.[9].

Waste from shrimp ponds, if not managed intensively, will result in water quality that does not meet standards and negatively impact marine life. The waste produced from shrimp ponds is liquid waste, consisting of uneaten shrimp feed and shrimp feces. Liquid waste contains high levels of nitrogen and carbohydrates.[10] This pollution can worsen environmental quality and lead to ecological crises such as reduced biodiversity and disease outbreaks in cultivated commodities, ultimately hampering the sustainability of shrimp farming. In some areas, intensive shrimp farming activities face sustainability challenges such as declining water quality and environmental pollution.[11]

Coastal areas have diverse functions and interests. Therefore, without clear regulations, the potential for conflict over spatial use is very high. Damage to important ecosystems, including mangrove forests, is undeniable. Mangroves play a vital role as natural filters and shoreline protectors. Without regional regulations governing the zoning and protection of these important ecosystems, the risk of damage and loss of ecological functions will increase.[12] In reality, today, the mangrove forests on Lombok Island have experienced degradation due to the continued expansion of land use, for example for shrimp ponds, or damage caused by theft for firewood and tree bark harvesting.[13]

The absence of regional regulations makes it difficult for local governments to monitor and enforce substandard aquaculture practices. A report from the Corruption Eradication Commission (KPK) as of February 2025 revealed that only around 10% of ponds in West Nusa Tenggara (NTB) had a marine spatial suitability permit (PKKPR) and a complete environmental permit.[14] This disparity highlights gaps in the oversight system and the

potential for legal violations that not only harm the environment but also reduce potential regional revenue.

In some areas, there is a mismatch between land use for shrimp ponds and established zoning, giving rise to legal and environmental issues. One such issue is in Karimun Jawa, Jepara Regency.[15] Most of the shrimp ponds operate without official permits. These pond activities result in damage to coastal ecosystems, including mangrove deforestation, water pollution from pond waste, and damage to coral reefs due to the installation of inlet pipes into the sea. This situation creates spatial inconsistencies, as the Jepara Regional Spatial Plan does not accommodate shrimp ponds in national park areas. This reinforces the urgency regarding how shrimp ponds should be regulated within the legal framework, particularly in West Nusa Tenggara Province.

4. COVER

Conclusion

Indonesia is rich in strategic natural resources, including the potential of the aquaculture sector, such as shrimp ponds, which are significant for the national economy and exports. However, the uncontrolled expansion of shrimp ponds poses serious threats to the coastal environment, such as water pollution, mangrove ecosystem destruction, and land use conflicts. Existing regulations, including the Fisheries Law, the Law on Coastal Areas and Small Islands Management, and their derivative regulations, are still general and do not specifically address shrimp pond management, creating regulatory gaps at the regional level.

The absence of clear regulations, particularly in West Nusa Tenggara Province, increases the potential for violations, weakens oversight, and encourages environmentally unfriendly farming practices. This is evident in the low level of licensing compliance, with a Corruption Eradication Commission report indicating that only around 10% of shrimp farms in NTB have complete permits. Cases in various regions, such as Karimunjawa in Jepara, provide clear evidence that without strong regulations, shrimp farming can trigger an ecological crisis and harm coastal communities. Therefore, the establishment of specific, sustainability-oriented regional regulations consistent with the principles of justice, benefit, and environmental sustainability is necessary. The ultimate goal is to ensure that the economic contribution of shrimp farming does not compromise coastal ecological functions or community well-being.

5. RECOMMENDATION

Regional governments, particularly those in West Nusa Tenggara (NTB) Province, need to immediately draft a Regional Regulation (Perda) specifically governing shrimp pond management, aligning with central regulations. This regulation should include zoning provisions, environmental operational standards, waste management obligations, and an integrated monitoring mechanism. With clear regulations, regional governments can close legal loopholes and strengthen control over potentially environmentally damaging aquaculture activities, while ensuring legal certainty for investors, the public, and law enforcement officials.

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