



Environmental Protection Due to Reclamation On Bungin Island, West Nusa Tenggara

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Abstract

The beach reclamation project undertaken by the Bajo tribe community on Bungin Island, Sumbawa, was carried out voluntarily due to land scarcity caused by high population density. Without a sufficient legal basis and environmental assessment, this activity damages marine ecosystems such as seagrass beds and coral reefs. This research examines the form of legal protection for the environment in reclamation based on the principle of sustainable development, the impact of reclamation, and efforts to enforce environmental law in this case. The method used is empirical legal with a sociological approach thru observation and interviews. The results show that legal protection is not yet effective due to weak supervision, low public legal awareness, and the lack of integration of reclamation with environmental regulations. Although national laws are already in place, local implementation is still weak. This research recommends synergy between the government and the community, increased environmental law literacy, and the development of local regulations based on sustainable development.

Abstrak

Reklamasi pantai secara swadaya oleh masyarakat suku Bajo di Pulau Bungin, Sumbawa, dilakukan akibat keterbatasan lahan karena tingginya kepadatan penduduk. Tanpa dasar hukum dan kajian lingkungan yang memadai, kegiatan ini merusak ekosistem laut seperti padang lamun dan terumbu karang. Penelitian ini mengkaji bagaimana bentuk perlindungan hukum terhadap lingkungan dalam reklamasi berdasarkan prinsip pembangunan berkelanjutan dan apa dampak reklamasi serta bagaimana upaya penegakan hukum lingkungan pada kasus ini. Metode yang digunakan adalah yuridis empiris dengan pendekatan sosiologis melalui observasi dan wawancara. Hasil menunjukkan bahwa perlindungan hukum belum efektif karena lemahnya pengawasan, rendahnya kesadaran hukum masyarakat, dan tidak terintegrasinya reklamasi dengan regulasi lingkungan. Meski hukum nasional sudah tersedia, implementasi lokal masih lemah. Penelitian ini merekomendasikan sinergi pemerintah dan masyarakat, peningkatan literasi hukum lingkungan, serta penyusunan regulasi lokal berbasis pembangunan berkelanjutan.



1. Introduction

Coastal reclamation can be understood as the act of modifying coastal areas by humans through the filling of waters with the aim of expanding land, which is then allocated for various development interests such as housing, economic activities, and the provision of public infrastructure. In the presidential regulation of the Republic of Indonesia Number 122 of 2012, Reclamation is an activity carried out by people in order to increase the benefits of land resources from an environmental and socio-economic perspective by means of land reduction, drying or drainage (Raihan, 2023).

Bungin Island, located in Alas District, Sumbawa Regency, West Nusa Tenggara (NTB), is one of the most densely populated islands in the world. With a land area of only about 8.5 hectares and a population of over 3,000, the local community faces severe land constraints. To meet their housing needs, the community has independently reclaimed the coast by filling in the shallow waters around the island with coral, sand, and other materials. This practice has been ongoing for decades as a local adaptation to land limitations (Sembiring, 2023). However, reclamation carried out without adequate spatial planning and environmental impact assessments has caused a number of ecological problems. Coastal ecosystems such as seagrass beds, coral reefs, and marine biodiversity have been damaged by massive and uncontrolled reclamation activities (B. Wang, 2023). Furthermore, this reclamation process has contributed to increased sedimentation, water pollution, and disruption of the natural functions of coastal areas. In this context, it is important to understand the concept of the environment as a whole that includes space, living things, objects, and various forces that interact and support the sustainability of human life and nature (Sulistyaningsih, 2022).

Bungin Island is inhabited by the Bajo people, known as skilled sailors who live and die at sea. The Bajo Sengaka people's homes jut out into the ocean, as the ocean is their primary source of livelihood and their only source of sustenance. The word "Bungin" comes from the Bajo language, meaning "white sand dune." Initially, the island was simply a sand dune, but over time, reclamation efforts expanded the island, making it increasingly vast.

According to the Republic of Indonesia Law Number 32 of 2009 concerning Environmental Protection and Management, all forms of spatial utilization must pay attention to the sustainability of the ecosystem as a life-supporting system. Coastal reclamation, as regulated in Law Number 27 of 2007 and Law Number 1 of 2014 concerning the Management of Coastal Areas and Small Islands, is a legally valid activity if carried out with the principle of caution and oriented towards environmental sustainability (Salim, 2015).

However, in practice, reclamation on Bungin Island has been carried out without reference to these provisions, potentially causing long-term environmental damage that is difficult to restore. Land issues also arise because reclaimed land is often not recorded in official land documents. This creates legal uncertainty regarding ownership and increases the potential for disputes between residents and between residents and local governments (H. Wuijts, 2024). Based on Law Number 5 of 1960 concerning Basic Agrarian Regulations (hereinafter referred to as the 1960 UUPA), land ownership by individuals and groups must be based on legal legitimacy recognized by the state, thus guaranteeing legal certainty and protection for their agrarian rights (Samir, 2021).

In addition to ecological issues, reclamation also has social impacts, such as land ownership conflicts and a decline in the quality of residential infrastructure due to limited spatial management. Beyond ecological aspects, coastal reclamation issues are also closely related to environmental protection within the framework of sustainable development, which requires a balance between economic, social, and environmental dimensions. If reclamation is carried out without strong legal support, the activity has the potential to hinder the achievement of environmentally sound and socially just development goals (Sudirman, 2009).

In the context of Bungin Island, reclamation that is not based on the principle of prudence and does not follow valid legal procedures indicates weaknesses in the environmental management system. Therefore, a comprehensive legal analysis is needed to examine the impacts of reclamation from an environmental law perspective. This study is important for identifying forms of violations of applicable legal norms and for formulating legal protection instruments that align with the principles of sustainable development as mandated in Articles 3 and 10 of Law Number 32 of 2009 concerning Environmental Protection and Management and in Law Number 1 of 2014 concerning Amendments to Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands.

Therefore, an in-depth academic study is needed on the impact of coastal reclamation on environmental damage on Bungin Island. The results of this study are expected to be the basis for local governments and communities in designing a more equitable and sustainable coastal area management strategy. Based on the background of the problem as described above, the problem formulation is: What is the form of legal protection for the environment in reclamation activities on Bungin Island in accordance with the principles of sustainable development and what is the impact of reclamation on the environment, especially marine ecosystems and efforts that can be made to enforce environmental law in reclamation activities on Bungin Island.

2. Method

This study uses an empirical juridical approach, namely a combination of analysis of written legal norms and the reality of their application in society (Soerjono, 1986). The juridical approach is used to examine regulations related to coastal reclamation such as Law No. 32 of 2009 and Law No. 1 of 2014, while the empirical approach describes how the implementation of reclamation on Bungin Island affects the environment and the effectiveness of its law enforcement. Types of Data: Primary Data: Obtained through direct interviews with the Head of the Sumbawa Environmental Service, Head of the PUU Sub-Division of the Sumbawa Regency Government, the Head of Bungin Village, and the community involved in the reclamation. Secondary Data: In the form of legal documents and literature, such as: Law No. 32 of 2009; Law No. 1 of 2014; Presidential Decree No. 122 of 2012; PP No. 27 of 2021. The data collection method is a field study: Conducted through observation and structured interviews to explore reclamation practices and community perceptions. Literature Study: Analyzing library materials and legal documents to strengthen the theoretical basis and assess the suitability of reclamation practices with applicable norms.

3. Results and Analysis

3.1 Forms of Legal Protection for the Environment in Reclamation Activities on Bungin Island

One of the main instruments in environmental protection is the Environmental Impact Analysis (AMDAL). Based on Articles 22–26 of the Law on Environmental Management and Management (UUPPLH), reclamation is classified as an activity with significant impacts that requires an AMDAL. This is reaffirmed in Presidential Regulation No. 122 of 2012, which requires reclamation planning by all parties, including the community. Another form of protection is through environmental permits. Article 36 of the UUPPLH stipulates that every activity requiring an AMDAL must have an environmental permit, which is issued based on technical recommendations from the AMDAL or UKL-UPL documents (Suharyansyah, 2022). In the context of reclamation, location and implementation permits are also required as stipulated in Article 15 of Presidential Regulation No. 122 of 2012. However, facts on the ground show an imbalance between law and practice. Based on interviews with Sumbawa Regency Government officials, the authority to regulate coastal areas currently rests at the provincial level according to Law No. 23 of 2014, while reclamation occurs at the district level. The absence of a specific Regional Regulation (Perda) for reclamation has led to overlapping and unintegrated policies. The Bungin Island community has carried out reclamation without permits and without considering the Environmental Impact Assessment (EIA) documents mandated by Article 22 of the UUPPLH and Article 23 concerning activities with major impacts.

Further legal protection comes through supervision and control. According to Article 36 of Law No. 27 of 2007 in conjunction with Law No. 1 of 2014, the central and regional governments are required to monitor and evaluate coastal area management. The government is also mandated to facilitate the granting of permits to local communities as a form of empowerment and protection for traditional groups.

The Head of the Sumbawa Environmental Agency revealed that the reclamation permit process is too complicated and lengthy, making it difficult for residents to follow official procedures. Many residents end up building houses without building permits (IMB) or other legal documents, creating legal vulnerabilities. Despite government education efforts, legal enforcement remains weak and tends to be permissive towards violations, citing socio-economic reasons.

On the other hand, environmental damage caused by reclamation is increasingly apparent. Coral reefs, seagrass beds, and marine biota are being degraded. Law No. 1 of 2014 emphasizes the importance of environmentally friendly coastal management, which not only pursues economic benefits but also protects ecological functions and local cultural values. Article 20 of this law requires the granting of management permits to local communities for the sustainable use of aquatic resources (Abdullah, 2023).

According to Village Head Jaelani, reclamation practices on Bungin Island still utilize dead coral reefs due to limited access to materials. This is considered normal by the community due to the pressing need for land, especially for new families. A single house can even accommodate more than three families. However, there is no active oversight by the local government to ensure that the reclamation is carried out legally and environmentally consciously.

The licensing issue has further complicated matters following the enactment of Government Regulation No. 22 of 2021, which mandates that AMDAL (Environmental Impact Assessment) feasibility tests for cross-authority activities (central, provincial, and district) be conducted by the Feasibility Test Team at the central or provincial level (T. Zhou, 2021). This procedure is inaccessible to small communities like those on Bungin Island. The village head stated that residents have never applied for official permits because they lack knowledge of how and have not received assistance from relevant agencies. Furthermore, Article 4 of Presidential Regulation No. 122 of 2012 states that the determination of reclamation locations must be based on the Coastal Area and Small Islands Zoning Plan (RZWP-3-K) and consider technical, social, and environmental aspects. However, reclamation activities on Bungin Island do not adhere to this zoning and are being carried out independently without any impact assessment. This highlights the weak implementation of regulations and the lack of coordination between levels of government.

Overall, legal protection for the environment on Bungin Island is regulated by various laws. However, its implementation is far from ideal. The absence of regional regulations, overlapping authority between levels of government, and weak law enforcement mean that reclamation activities on Bungin Island proceed unsupervised and have the potential to further damage the coastal ecosystem. Ideal protection efforts should involve synergy between the government and the community, taking into account the socio-cultural context and principles of sustainable development.

Local governments play a strategic role in the management of coastal areas and small islands, particularly in implementing appropriate and transparent zoning plans. Active government involvement is essential to prevent irregularities in the zoning permitting process, which could lead to detrimental legal consequences. With government involvement in the oversight process, the potential for environmental damage resulting from unilateral reclamation without formal procedures can be minimized. This is crucial, given that undirected reclamation activities that do not undergo legitimate oversight mechanisms risk causing serious damage to marine ecosystems. Therefore, the established permitting system must be structured and under the control of authorized authorities to ensure that reclamation activities adhere to the principles of good environmental governance.

Reclamation in coastal areas like Bungin, according to Law No. 32 of 2009 concerning Environmental Protection and Management (PPLH), should adhere to the precautionary principle, require the preparation of an Environmental Impact Analysis (AMDAL), and provide for public participation at every stage of the licensing process. The Job Creation Law substantively revises several key articles in Law 32/2009, particularly those related to AMDAL and environmental permits. One crucial change is the integration of environmental permits into risk-based licensing through the Online Single Submission (OSS) system, where projects categorized as low to medium risk are no longer required to have a full AMDAL. This change has significant implications for coastal areas like Bungin, as reclamation carried out by private entities can proceed without a comprehensive ecological evaluation. Furthermore, provisions regarding public participation in the environmental planning and monitoring process, guaranteed in Article 70 of Law 32/2009, are not strengthened in the Job Creation Law. This has resulted in minimal community involvement on Bungin Island in decisions directly related to their living space and resources. Research by

Grigorius (2020) explains that the Job Creation Law itself ignores the principles of information transparency and participation as mandated by environmental law. Consequently, the potential for environmental damage on Bungin Island increases as reclamation projects tend to be legalized without robust ecological accountability mechanisms.

This lowering of protection standards contradicts the spirit of sustainable development, the core spirit of Law 32/2009. The law not only places the environment as an object of protection but also guarantees the community's right to a good and healthy environment. Therefore, the reclamation on Bungin Island needs to be reviewed not only technically but also legally, by reconsidering the validity of permits and compliance with the principles of precaution and ecological sustainability. If left unchecked, reclamation could lead to ecological damage, loss of marine biodiversity, and horizontal conflict due to the loss of traditional fishing grounds.

3.2 Legal Protection for the Environment in the Sustainable Development Paradigm

Environmentally friendly reclamation implementation requires strong law enforcement. In many cases, environmental laws in many countries, including Indonesia, face challenges in their implementation. Weak enforcement can lead to illegal activities that damage sensitive ecosystems, such as wetlands and coastal areas, which are often the targets of reclamation activities. In some areas, such as coastal area management, inadequate regulations often result in habitat loss and environmental degradation. For example, coastal reclamation has repeatedly been shown to harm biodiversity and reduce the ecosystem's ability to store carbon and buffer against the impacts of climate change.

As part of a broader approach to reclamation management, an integrated policy that includes clear boundaries for reclamation activities is needed. According to researchers, unplanned development often leads to irreversible environmental degradation, and therefore, policymaking that considers long-term sustainability is crucial. Regulations requiring environmental impact assessments (AMDAL) are a necessary first step, requiring each reclamation project to undergo a rigorous evaluation process to assess its ecological impacts. Furthermore, efforts to rehabilitate reclaimed land should be considered to restore disturbed ecosystem functions.

The need for authorities to impose sanctions for violations of environmental protection laws during reclamation activities is also crucial. Law enforcement must be balanced with increased public awareness and education about the importance of preserving the surrounding ecosystem. Research shows that communities directly involved in and impacted by reclamation activities tend to be more concerned and active in environmental protection programs (X. Zhue, 2017).

At the international level, environmental protection policies can influence each other, and from a legal perspective, it has been widely concluded that countries with stricter environmental laws tend to be more successful in preserving biodiversity and ecosystems. Several countries have taken steps to adopt policies that support sustainable development, including legislation that takes into account the environmental impacts of development projects, including land reclamation. For example, legal reforms in China that introduced strict restrictions on land reclamation activities also reflect the country's concern for the sustainability of its coastal ecosystems (Muhdar, 2016).

Bungin Island in Sumbawa Regency presents complex socio-ecological dynamics in coastal reclamation practices. Self-help reclamation by the community is a response to limited land and housing pressures caused by population growth. Although the reclamation violates legal provisions such as Law No. 32 of 2009 and Presidential Regulation No. 122 of 2012 due to the lack of an Environmental Impact Assessment (EIA) and official permits, these violations are more likely due to the legal system's incompatibility with local conditions. Complicated bureaucratic procedures and limited access to information make it difficult for the community to comply with regulations.

On the other side, weak regulations at the regional level, such as the absence of reclamation regulations, demonstrate the government's lack of commitment to coastal communities. A technocratic and centralized legal approach fails to address the sociocultural context, such as the tradition of providing land before marriage. Coastal management should integrate social and ecological aspects, not solely emphasize conservation.

From an environmental perspective, uncontrolled reclamation can damage marine ecosystems such as coral reefs and seagrass beds. However, a ban alone is not enough. The solution needed is the provision of environmentally friendly reclamation alternatives, increased legal and environmental literacy, and participatory policies. The state must be present not only as a supervisor but also as a fair and adaptive facilitator. Overall, legal protection for the environment in reclamation must accommodate community interests while preserving ecosystems. A social justice-based approach, operational law, and sustainability principles need to be the foundation for designing inclusive and effective reclamation policies.

This study found that reclamation practices on Bungin Island violate environmental law principles stipulated in various regulations, such as Law No. 32 of 2009, Law No. 1 of 2014, and Presidential Decree No. 122 of 2012. The reclamation activities, carried out independently by the community, took place without an Environmental Impact Assessment (EIA), location permits, and without a zoning basis, thus lacking formal legality and damaging the marine ecosystem. The discrepancy between legal norms and practices in the field reflects weak oversight and the minimal active role of local governments.

Besides being a legal violation, this reclamation practice also contradicts the paradigm of sustainable development. There is a disparity between the community's social needs—such as housing—and environmental conservation efforts. The local government has failed to provide legal and environmentally friendly housing solutions, forcing communities to carry out illegal reclamation without considering the impact on the coastal environment.

The failure of local governments to formulate reclamation policies that support the community and the environment demonstrates weak coastal spatial governance. This exacerbates the imbalance between ecological, legal, and social aspects in reclamation practices. This study concludes that legal protection for the environment has not been effective, and sustainable development has not been realized. Therefore, an integrated approach based on regulation, collaboration, and community participation is needed. Law enforcement against illegal reclamation must be accompanied by alternative solutions, such as the provision of legal housing and environmental education, to achieve ecological and social justice on Bungin Island.

3.3 Impact of Reclamation Activities on the Environment

Reclamation activities have a significant impact on the sustainability of marine ecosystems, particularly in affecting the life of the biota inhabiting these waters. On Bungin Island, the majority Bajo ethnic group has long practiced traditional reclamation, utilizing dead coral reefs as the primary material for house foundations. This reclamation process involves filling shallow waters with coral debris until the area can be used for residential purposes. Reclamation on Bungin Island not only impacts the environment but also creates complex social issues. With a high population density and limited land, the Bajo people are forced to carry out reclamation independently without proper planning and coordination. As a result, horizontal conflicts between residents, unequal land ownership, and changes in social structures have emerged, particularly in the lives of fishermen whose fishing grounds continue to shrink. The tradition of land reclamation has been ongoing since the Bajo tribe arrived on Bungin Island. This activity is even considered a cultural heritage closely linked to the identity of the local community. However, over time, the practice has grown massively and uncontrolled, causing damage to coral reefs, seagrass beds, and a decline in marine biodiversity. The community recognizes that reclamation using coral reefs (especially dead coral) is a cheap and practical solution due to limited access to other construction materials such as fill soil.

Several residents, such as Supiani and Heri, explained that economic and cultural constraints are the main factors driving the reclamation project. Residents are not allowed to leave Bungin Island, and local culture requires young men to secure their own land before marriage. As a result, a single house often houses three to four families. The reclamation process also takes a long time, as coral collection must be tailored to weather conditions and limited operational costs.

Legally, this reclamation practice violates various provisions, such as Article 35 of Law No. 27 of 2007, which prohibits coral reef mining and other environmentally damaging physical development. However, weak oversight and minimally effective outreach have allowed this activity to continue unchecked. The Sumbawa Regency Environmental Agency stated that they are only able to provide warnings, while the licensing process and coordination with technical agencies have not been optimal (Huda, 2013).

Several residents, like Zul, have demonstrated an awareness of the need to switch to alternative materials, such as soil from mines. However, difficult access and high costs make this option difficult to implement widely. In fact, some residents are still forced to use live coral reefs to expand their residential areas. This situation is exacerbated by the lack of specific local regulations governing reclamation, as well as a lack of synchronization between district and provincial governments regarding coastal area oversight authority.

From an ecological perspective, reclamation causes serious degradation of coastal systems, including coral reefs, mangroves, and seagrass beds. The 2009 Environmental Management Law (UUPPLH) sets standards for environmental damage, but these have not been effectively implemented on Bungin Island. The knock-on effects of this damage include the loss of marine habitat, disruption of fish migration, and a decline in the quality of life for fishing communities. Overall, reclamation practices on Bungin Island face a dilemma between the community's basic needs and environmental preservation. An approach that emphasizes only legal prohibitions is ineffective without concrete solutions such as the provision of alternative materials, financial

assistance, and participatory spatial planning. The state must be present not only as a controller, but also as a facilitator, providing solutions for the community.

3.4. Environmental Law Enforcement in Reclamation Activities on Bungin Island

Environmental law enforcement in reclamation activities is increasingly crucial amid increasing pressure on coastal ecosystems. While reclamation is often perceived as bringing economic and social benefits, this practice can cause serious environmental damage if not properly controlled. Therefore, law enforcement is not limited to regulations alone; it must also involve the active participation of communities, local governments, and the private sector. According to Presidential Regulation No. 122 of 2022, every reclamation activity is required to have a planning process, location permits, and implementation permits. Furthermore, an Environmental Impact Assessment (EIA) document is an absolute prerequisite for identifying and managing potential environmental impacts. However, implementation in various regions, including Bungin Island, remains very weak. Factors such as economic pressures, budget constraints, and local interests often lead to the licensing process being ignored and oversight being inadequate.

In the context of the Bungin Island reclamation, the local government has issued a warning to halt the practice of coral harvesting. Unfortunately, limited land, expensive soil materials, a lack of heavy equipment, and weak coordination between agencies have rendered this warning ineffective. Reclamation practices continue without clear legal procedures, even using live coral reefs, which are a vital habitat for marine life. This activity is not intended to cause damage, but rather a response to urgent needs amidst rapid population growth and a local culture that prohibits residents from leaving the island.

This social problem is exacerbated by the absence of a Regional Regulation (Perda) specifically governing reclamation management. Although Law No. 27 of 2007 expressly prohibits activities that damage the ecosystem, local governments have not demonstrated a real commitment through concrete supervision and law enforcement. Community-led reclamation activities continue without administrative or technical oversight. Ecologically, the impacts include: loss of coral reef habitat, disruption of fishing grounds, decreased biodiversity, and seawater pollution due to sedimentation and waste. Furthermore, ecological pressure is exacerbated by the conversion of coastal areas into densely populated settlements without environmental zoning. Livestock such as goats are forced to eat plastic and paper due to the lack of green space. This indicates extreme environmental degradation.

Based on the Legal Ecology Theory approach, this condition demonstrates the failure of the legal system to function effectively within society. Environmental regulations, which tend to be legalistic and centralized, are irrelevant to the local context. As a result, communities that should be protected are instead caught in the crossfire because the law fails to provide just and contextual solutions. On the other hand, civil law enforcement can be an alternative. Communities who feel disadvantaged by reclamation can file a lawsuit for unlawful acts (PMH) as stipulated in Article 1365 of the Civil Code. Furthermore, Article 91 of Law No. 32 of 2009 opens the opportunity for class action lawsuits by communities or environmental NGOs to fight for the right to a healthy environment. However, this mechanism is remedial in nature and relies heavily on community initiative and the support of legal counsel.

Therefore, law enforcement strategies must be multidimensional and collaborative, taking into account the following approaches: Ecosystem restoration in every reclamation project; Nature-based solutions, such as ecosystem engineering; Involvement of local communities, including in reclamation planning and supervision; Regulatory reform, both at the central and regional levels, to be more adaptive to the realities of coastal communities.

The government cannot simply issue warnings; it must also be actively involved by providing environmentally friendly alternatives, logistical assistance, and legal and participatory community reclamation policies. Only with a collaborative approach and social justice can law enforcement regarding reclamation be effective and sustainable.

Meanwhile, criminal law enforcement against perpetrators of illegal reclamation is also possible if it is proven that environmental pollution or damage occurred due to intent or negligence. Articles 98 to 100 of Law No. 32 of 2009 state that anyone who intentionally commits an act that results in environmental pollution or damage can be punished with a maximum of 10 to 15 years in prison and a fine of up to IDR 15 billion. In the case of Bungin Island, if it can be scientifically proven that reclamation has caused the loss of marine habitats such as seagrass beds, damage to coral reefs, or increased coastal abrasion, then the perpetrators can be held accountable for environmental crimes. However, the practice of criminal law enforcement in the environmental sector still faces serious obstacles, primarily due to the high standards of scientific evidence, the limited capacity of environmental investigators (PPNS), and weak coordination between law enforcement agencies. Therefore, a combination of administrative, civil, and criminal law enforcement is a strategic approach that must be considered simultaneously in ensuring environmental protection on Bungin Island.

As a follow-up to law enforcement against illegal reclamation on Bungin Island, active involvement from various parties is required, especially the local government, law enforcement officers, and environmental institutions. The local government, together with the West Nusa Tenggara Provincial Environmental Agency, is obligated to immediately verify the legality of past and ongoing reclamation, as well as to conduct an environmental audit of the impacts of such reclamation. This is in line with Article 76 of Law No. 32 of 2009, which regulates the government's authority to impose administrative sanctions in the form of temporary suspension of activities, restoration of environmental functions, or even revocation of permits. If indications of more serious legal violations are found, the government can submit a report to the environmental civil servant investigator (PPNS) or the police to conduct a criminal investigation based on Article 94 and Article 98 of the same law.

In addition, non-governmental organizations (NGOs) such as WALHI or LBH can act as independent monitors and legal advocates for residents, including filing environmental lawsuits through class action mechanisms, as stipulated in Article 91 of Law 32/2009. This mechanism can be an effective means of encouraging compensation, ecosystem restoration, and even the cancellation of unlawful reclamation. On the other hand, the Bungin Island community itself needs to be legally and socially empowered to have environmental advocacy capacity and be able to exercise their participatory rights as guaranteed in Article 70 of the PPLH Law. Therefore, follow-up law enforcement should not rely solely on a repressive approach, but also need to be

supported by participatory and restorative approaches, to ensure environmental sustainability and the socio-ecological sustainability of Bungin Island.

The reclamation of Bungin Island by the Bajo community reflects the conflict between tradition, social needs, and ecological pressures. Initially an adaptation to limited space, the practice has become a necessity due to rapid population growth. The community uses coral reefs—both dead and live—as reclamation material, even though this practice damages the marine ecosystem. Ironically, despite the land expansion of 16 hectares, community welfare has not improved; many homes are occupied by more than three families, and the income of the community, which is predominantly fishermen, remains low.

Reclamation activities are carried out sporadically without an Environmental Impact Assessment (EIA), environmental permit, or legal zoning plan, thus violating various provisions in Law No. 32 of 2009, Law No. 1 of 2014, and Presidential Decree No. 122 of 2012. In addition to legal impacts, reclamation also causes serious ecological damage: coral reef death, reduced biodiversity, seawater pollution, and disruption of fishing grounds. From a social perspective, land conflicts, disparities in access, and a degradation of quality of life have also emerged. Outreach efforts conducted by the Environmental Agency have been ineffective because they are not accompanied by concrete solutions such as subsidies for environmentally friendly materials or sustainable spatial plans. Law enforcement is also symbolic—without sanctions or firm action against environmental violations. In this context, reclamation is not merely a technical issue, but a manifestation of the failure of local government governance to implement policies that integrate social, ecological, and legal aspects.

4. Conclusion

Legal protection for the environment in reclamation on Bungin Island has been normatively regulated in various regulations such as Law No. 32 of 2009 concerning Environmental Protection and Management, Law No. 1 of 2014 concerning Amendments to Law No. 27 of 2007 concerning Management of Coastal Areas and Small Islands and Presidential Regulation No. 122 of 2012 concerning Reclamation in Coastal Areas and Small Islands, which require planning, AMDAL studies, and permits before reclamation. However, the implementation has not been effective because the Regional Government only applies a persuasive approach without firm law enforcement and without clear coastal spatial planning. The impact of reclamation that damages the marine ecosystem, such as the destruction of coral reefs and the loss of marine biota habitat, indicates weak supervision and the non-use of repressive legal instruments as regulated in the Law on Environmental Protection and Management. This reflects that the principle of sustainable development has not been made the main foundation in the management of the coastal area of Bungin Island.

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