

LEGAL PROTECTION OF MANGROVE FORESTS IN THE COASTAL AREA OF BIMA Bay

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ABSTRACT

Mangrove forests, as a natural resource, are essential for human life in terms of economic, cultural, tourism, religious, environmental, and health aspects. Forests are said to be the lungs of the world. They can be a source of life to provide oxygen and the source of the ozone layer needed by living things. Based on those descriptions, the problems studied were as follows: 1. What is the legal protection for mangrove forests in the coastal area of Bima Bay? 2. What efforts are being made by the Bima City and Bima Regency governments to preserve mangrove/mangrove forest areas in the coastal area of Bima Bay?

This research aimed: 1. To study and analyze the forms of legal protection for mangrove forests in the coastal area of Bima Bay; and 2. To study and analyze the efforts made by the Bima City and Regency governments to protect mangrove forests along the Asakota coast. This research was an empirical legal research; the methods used were the statutory, conceptual, and Sociolegal approaches. The legal materials and data sources used were from library materials consisting of primary, secondary, and tertiary legal materials, as well as field data in the form of primary and secondary data. Analysis was carried out using descriptive qualitative analysis.

The results show that: 1. The central government took legal actions through BUMN PT Pelindo that reduced the area of mangrove forests to expand port facilities; 2. There was destruction in some parts of the mangrove forest area affected by the Bima City government's reclamation on the coastal border to build public facilities, but the mangrove forest has been replanted; 3. The Bima regency government destroyed mangrove forests along the Asakota coast by carrying out reclamation to expand public road facilities, but they still need to replant the mangrove forest. 4. Destruction of mangrove forests in the coastal area of Bima Bay by individuals.

The government's legal protection of mangrove forests, including the mangrove forest areas in the coastal area of Bima Bay, are 1. preventive legal protection and repressive legal protection. Preventive legal protection is carried out by establishing legal rules, socializing legal rules, implementing legal rules, and implementing supervision. Meanwhile, repressive legal protection takes the form of law enforcement and legal sanctions to legal entities or individuals who use mangrove forest areas in the coastal area of Bima Bay without permission. 2. The efforts made by the Bima City and Bima Regency governments to protect mangrove forests along the coast of Asakota are to help the central government educate people to be more aware of how essential mangrove forests are for life and the environment; thus, people do not destroy them; Carrying out

rejuvenation by replanting in damaged areas and new areas along the coast of Bima Bay, as well as maintaining and protecting the existence of mangrove forests with the central government.

Keywords: *Forest; Legal protection; Mangrove*

INTRODUCTION

Forests are a potential and essential natural resource for human life, from the economic, tourism, socio-cultural, health and environmental aspects. Therefore, forests must be appropriately managed and environmentally friendly. Mangrove forests are one of the most important biological resources for humans and animals along the coast, lakes and rivers. For this reason, the management and management of forests, specifically mangrove forests, must be carried out adequately based on principles, rules, and legal norms as guidelines and guidelines for their management.

Mangrove forests are among Earth's most ecologically productive marine ecosystems, providing unique habitats for many species (Carugati et al., 2018). Mangrove forests provide essential services worldwide, including essential human goods and services worth US\$ 194,000 ha year-1 (Romanach et al., 2018; Costanza, 2014). Mangrove forests have many functions and benefits that play an essential role in the lives of their inhabitants biologically, ecologically, physically and socio-economically (Yanagisawa et al., 2010; James et al., 2013; Abino et al., 2014; Sandilyan and Kathiresan, 2015, Kusmana and Sikwika, 2018). Mangrove areas as protected areas were once a source of raw materials for the daily lives of local communities. They can function as cultural and spiritual identity tourism facilities and provide ecological services to the surrounding environment (Chen et al., 2009; Sapruddin and Halidah, 2012; Carandang et al., 2017; Kecil et al., 2017). It generally grows in wet, saltwater soils and is periodically submerged by tidal currents along protected coasts, estuaries and riverine areas in tropical and subtropical latitudes (Albert dan Schwarz, 2013).¹

The forest land management system planned by the government aims at community empowerment based on preserving forest products from the ecosystem aspect, sustainable community welfare, democratic natural resource management, social justice, public accountability, and legal certainty. Mangrove forests serve as a deterrent to coastal abrasion, preserving natural flora and fauna, and providing raw materials for medicines. Therefore, maximum efforts are needed to prevent damage to the mangrove forest ecosystem.²

Forest management and utilization must be carried out with the principles of sustainability and sustainability. In order to achieve sustainable development, the protection of the forest environment must be an integral part of the development process and cannot be considered separate from it). Principle 8 reads: To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable production and consumption patterns and promote appropriate demographic policies.³ (To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable production and consumption patterns and promote appropriate demographic policies).

The Rio de Janeiro Declaration, known as the Earth Summit, produced five essential rights. Of particular importance about forests and the environment are the principles that guide the

¹Amal Arfan, dkk, *Strategi Pengelolaan Kawasan Hutan Mangrove Sebagai Kawasan Hutan roduksi Di Kabupaten Maros Sulawesi Selatan, Indonesia, Jurnal Environmental Science, Volume 3 Nomor 2 April 2021, p-ISSN : 2654-4490 dan e-ISSN : 2654-9085, p. 184.*

²Orind K Sihotang, Gusti Hardiansyah, Evy Wardenaar,(2019), *Potensi Ekosistem Hutan Mangrove Terhadap Keberadaan Madu Hutan Sebagai Jasa Lingkungan Di Desa Batu Ampar Kabupaten Kubu Raya* Jurnal Hutan Lestari, Vol. 7 (1) : 335 – 348

³Ibid.

sustainable management, conservation and development of forests, which are an indispensable element for economic development and the preservation of all forms of life:⁴

Based on these principles, both the Forestry Law Number 41 of 1999 on Forestry and the legislation on Environmental Protection and Management with Law Number 32 of 2009 state that the management and utilization of forests and the environment must be carried out sustainably and sustainably. Law No. 41/1999 on Forestry Article 2 states that one of the principles of forestry management is the principle of benefit and sustainability. This principle requires that every implementation of forestry management pay attention to the balance and sustainability of environmental, social, cultural, and economic elements. Furthermore, Article 10 regulates forestry management, which includes managing and cultivating forest areas to obtain the most significant possible benefits and be versatile and sustainable for the prosperity of the people.

Based on the provisions of Articles 2 and 10, Article 50 stipulates the following prohibitions on the utilization and use of forest areas:

- 1) Every person is prohibited from damaging forest protection infrastructure and facilities.
- 2) Every person granted an area utilization business license, an environmental service utilization business license, a timber and non-timber forest product utilization business license, and a timber and non-timber forest product collection license is prohibited from carrying out activities that cause forest damage.
- 3) Every person is prohibited from:
 - a. working on and or using and or occupying forest areas illegally;
 - b. encroaching on forest areas;
 - c. Logging trees within the forest area with a radius or distance of up to:
 1. 500 (five hundred) meters from the edge of a reservoir or lake;
 2. 200 (two hundred) meters from the edge of springs and left and right of rivers in swamp areas;
 3. 100 (one hundred) meters from the left and right bank of a river;
 4. 50 (fifty) meters from the left and right banks of tributaries;
 5. 2 (two) times the depth of the ravine from the edge of the ravine;
 6. 130 (one hundred thirty) times the difference between the highest and lowest tide from the shore.
 - d. Burning the forest;
 - e. Cutting down trees, harvesting, or collecting forest products in the forest without rights or permits from the authorized official is a violation of forest protection. Etc.

These prohibitions are punishable as stipulated in Article 78, namely imprisonment and fines for those who commit violations. These sanctions are fantastic in terms of length of imprisonment and the value of the fine.

Furthermore, Law No. 32/2009 on Forest Protection, Management and Utilization, Article 2 stipulates that environmental protection and management are implemented based on: a. state responsibility; b. sustainability and sustainability. Meanwhile, Law No. 27/2007 on Coastal and Small Islands, Article 3 point a., specifies that managing coastal areas and small islands is based on sustainability. Article 22 determines that the Right to Operate Coastal Waters (HP-3)

⁴Michael Keating, *Agenda 21 dan Hasil KTT Bumi*, Jakarta, Konphalindo, p. Xv, Thn. 1996. Yang dikutip dari Sood Muhammad, (2019), *Hukum Lingkungan Indonesia*, Sinar Grafika, Jakarta.

cannot be granted in Conservation Areas, fisheries reserves, shipping lanes, port areas, and public beaches.

Based on the description above, the following problems can be formulated:

1. How is the legal protection of mangrove forests in the coastal area of Bima Bay?
2. What efforts have been made by the Bima City and Bima Regency governments to preserve mangrove forests in the coastal areas of Bima Bay?

METHOD

This research is empirical legal research, namely, which aims to identify unwritten laws and research on legal effectiveness.⁵ Empirical legal research starts with legal theories and concepts (legal norms) to relate them to reality in the field, then studies and analyses theoretically and normatively regarding their implementation/application. The approach method used is normative-empirical. A normative approach is used to study and analyze library materials, namely primary, secondary and tertiary legal materials. The normative approaches used are the statutory approach and the conceptual approach;⁶ Meanwhile, the empirical approach used is the Socio-legal approach. An empirical approach was carried out in order to search for primary data and secondary data through observation and interviews.

Sources of legal materials and data, in the form of library materials consisting of primary legal materials, namely sourced from statutory regulations, Government Regulations, Presidential Regulations, Ministerial Regulations, and others, while secondary legal materials come from literature books, research results, and opinions of legal experts obtained through library research, and tertiary legal materials, in the form of legal dictionaries, Indonesian dictionaries.⁷ Meanwhile, field data consists of primary data and secondary data. Primary data is from interviews with respondents and informants at the research location, while secondary data is obtained from official documents from agencies that manage forestry and the environment.⁸

The techniques for collecting legal materials and data are carried out: The collection of legal materials (library materials) is carried out by document study, which involves reviewing and analyzing library materials (e.g., laws and implementing regulations, literature books, previous research results, and scientific journals). Meanwhile, observation and structured interviews with respondents and informants were conducted to collect primary data.

The collected legal materials are reviewed and analyzed using normative analysis methods, namely legal interpretation methods (authentic, grammatical). Meanwhile, field data analysis was carried out using quantitative analysis, starting with verification, labelling and validation, then tabulated. Conclusions are drawn based on deductive reasoning.

ANALYSIS AND DISCUSSION

Theoretical Foundation

Theory in research and study is a tool or analytical knife to analyze problems that become the central issue in a research or study. The theories that will be used in studying and analyzing the problems in this study are as follows:

⁵Soerjono Soekanto, (2010) dikutip dalam Mukti Fajar MD dan Yulianto Ahmad, *Dualisme Penelitian Hukum, Normatif dan Empiris*, Yogyakarta, Pustaka Pelajar, p. 153.

⁶Mukti Fajar MD dan Yulianto Ahmad, (2010) *Dualisme Penelitian Hukum, Normatif dan Empiris*, Yogyakarta: Pustaka Pelajar.

⁷Mukti Fajar MD dan Yulianto Ahmad, *Ibid*, (2010), p 157. See also Bambang Sunggono, *Metodologi Penelitian Hukum*, Jakarta, (2001), Radjagrafindo, Third Edition, p 11.

⁸*Ibid*.

1. Theory of Authority

Phillipus M. Hadjon said that the authority possessed by government organs or institutions in carrying out actual actions, regulating or issuing decisions is always based on the authority obtained from the Constitution by delegation, attribution, or mandate.⁹ If observed, there is a slight difference between authority and “bevoegheid”. The difference lies in its legal character. The term “bevoegheid” is used in the concept of public and private law. In our legal concept, the term authority should be used in public law. However, power has two aspects, namely, the political aspect and the legal aspect. In contrast, authority only has a legal aspect, meaning that power can be sourced from the Constitution and outside the Constitution (unconstitutional), for example, through war or a coup. In contrast, the authority itself is sourced from the Constitution.¹⁰

According to Bagir Manan, authority in legal language is not the same as power or match. Power only describes the right to do or not do. In law, authority also means rights and obligations or rechten en lichen. Concerning regional autonomy, the right implies the power to regulate oneself zelfregelen, while the obligation horizontally means the power to organize the government as it should. Vertical means the power to run the government in an orderly state government bond.¹¹

2. Legal Protection Theory

Satjipto Raharjo defines Legal Protection as protecting human rights that others harm. The protection is given to the community so that they can enjoy all the rights granted by law.¹²

Philipus M. Hadjon argues that Legal Protection is the protection of dignity and the recognition of human rights owned by legal subjects based on legal provisions that protect them from arbitrariness.¹³

Conceptual Foundation

1. Conception of Mangrove Forest

Forests are fields of growing trees, which, as a whole, are a living community of biological nature, along with the natural environment that the government designates as a forest.¹⁴ Law No. 41/1999 defines a forest as an ecosystem unit: an expanse of land containing biological resources dominated by trees in a natural environment that is inseparable from one another. A Forest Area is a certain area designated and/or determined by the government to maintain its existence as a permanent forest.

Mangrove forests are generally tropical coastal vegetation communities dominated by several types of trees that can grow and develop in muddy coastal tidal areas. The difference with other forests is the presence of specific flora and fauna, with high species diversity.¹⁵

Mangrove forests consist of specific plant formations and are generally found growing and developing in sheltered coastal areas in tropical and subtropical regions. The word mangrove comes from a combination of Portuguese mangue and English grove. In Portuguese, the word mangrove is used for individual plant species, and the word mangal is used for forest communities consisting of individual mangrove species. In English, the word mangrove is

⁹Philipus M. Hadjon, *Tentang Wewenang*, Makalah, Universitas Airlangga, Surabaya, p. 20

¹⁰*Ibid.* p. 20.

¹¹Bagir Manan, (2000). *Wewenang Provinsi, Kabupaten dan Kota dalam Rangka Otonomi Daerah*. p. 1-2

¹²Satjipto Rahardjo, (2000). *Ilmu Hukum*, Bandung, PT. Citra Aditiya Bandung, p. 253

¹³Philipus M. Hadjon, *Op.Cit.* p. 20

¹⁴Bambang Pamulardi, (1999). *Hukum Kehutanan & Pembangunan Bidang Kehutanan*, Cetakan 3 Jakarta: PT Raja Grafindo Persada, p. 233, Baca juga Salim HS, (2008), *Dasar dasar Hukum Kehutanan*, Jakarta, Sinar Grafika, p. 7.

¹⁵Bengen, 1999; Giesen, et al., (2006), yang dikutip dalam Su Ritohardoyo dan Galuh Bayu Ardi, *Arahan Kebijakan Pengelolaan Hutan Mangrove: Kasus Pesisir Kecamatan Teluk Pakedai, Kabupaten Kubu Raya, Propinsi Kalimantan Barat, Jurnal Geografi, Volume 8 No. 2 Juli 2011.*

used for communities of trees or grasses that grow in coastal areas and for individual plant species that grow in association with them. Examples of mangrove species commonly found in Indonesia are trees of the mangrove species.¹⁶

According to Saenger, a mangrove forest is a forest formation influenced by the tides with anaerobic soil conditions.¹⁷ Sukardjo defines a mangrove forest as a group of plants consisting of various types of plants from different families. However, it has the same morphological and physiological adaptability to habitats influenced by tides.¹⁸

2. *Conception of the Environment*

According to Law No. 32/2009 on Environmental Management and Protection, states: “The environment is the unity of space with all objects, forces, conditions, and living things, including humans and their behaviour, which affect nature itself, the continuity of life, and the welfare of humans and other living things.” In addition to the above definition, there are several definitions according to experts who, of course, define based on their scientific background.

Emil Salim defines “the environment as objects, conditions, conditions, and influences contained in the space we occupy and that affect living things, including human life. If the limitation is simplified, the environmental space is limited by factors that can be reached by humans, such as natural, political, economic, political, and social factors.”¹⁹ Munadjat Danusaputro stated the same thing: “The environment is all objects and conditions, including humans and their behaviour, which are found in the space where humans are and affect the survival and welfare of humans and other living bodies.”²⁰ Likewise, Otto Soemarwoto states, “The environment is the sum of all objects and conditions that exist in the space we occupy and affect our lives.”²¹

According to Law No. 32/2009 on Environmental Protection and Management, environmental protection and management are systematic and integrated efforts undertaken to preserve environmental functions and prevent environmental pollution and/or damage. These efforts include planning, utilization, control, maintenance, supervision, and law enforcement.

Overview of Mangrove Forest Condition in the Coastal Area of Bima Bay

Mangrove forests consist of specific plant formations and are generally growing and developing in protected coastal areas in tropical and subtropical regions. In the coastal border areas of Bima City and Bima Regency, many mangrove forests grow and develop, but because the community directly utilizes the coastal border areas of Bima City and Bima Regency to carry out business activities carried out at the coastal border, such as for fish ponds, salt ponds, and agricultural and fishery activities directly around the coastal area, resulting in many mangrove/mangrove forest areas being destroyed. Therefore, after identifying and inventorying the mangrove forests, the government has declared very few mangrove forest areas to be protected.

The results showed that the protected mangrove forest area in the coastal border of the Asakota City of Bima, which is the coastal area of Bima Bay, based on data from the Ministry of Forestry and Environment, in this case, data obtained from the PKSDAE Section of the

¹⁶Blog Lindungi Hutan > Peta Situs > Hutanpedia > *Hutan Mangrove: Loc. Cit.* p 1.

¹⁷*Ibid.*

¹⁸*Ibid.*

¹⁹Emil Salim, (1982), *Lingkungan Hidup dan Pembangunan*, Mutiara, Jakarta, 1982, p 34.

²⁰Munadjat Danusaputro, (1980), *Hukum Lingkungan* Buku I: Umum, Binacipta, Bandung, p 67.

²¹Otto Sumarwoto, (1981) *Pengelolaan Manfaat dan Resiko Lingkungan*, Lembaga Ecologi, Unpad, Bandung.

BKPH of NTB Province, 2001, precisely the situation in the working area of the KPH Maria Donggomasa Center as follows:

Table 1. Mangrove Cover Area and Density of Bima

No	Location	Location Area (Ha)	Percentage Cover (%)	Density (Tree/Ha)
1	Ni'u Kel. Dara	6,8	75 %	210
2	Amahami Kel. Dara	4,06	70 %	100
3	Bina Baru Kel. Dara	6,7	70 %	100
4	Tanjung Kel. Tanjung	12,5	75 %	150
5	Melayu Kel. Melayu	13,7	80 %	300
6	Bonto Kel. Kolo	0,012	60 %	15
Total Area		43,772		

* Data Source: Marine and Fisheries Service of Bima City, 2021.

The data above shows that the area of mangrove forest that grows and spreads in the Asakota coastal area of Bima City until 2021 is 43,772 Ha., which is spread over 6 (six) locations. However, in 2022-2023, the number of protected mangrove forest areas will decrease.

Below, we present official data on protected mangrove forest areas in the Asakota coastal border of Bima City and Bima Regency.

Table 2. Mangrove Distribution Data in The Working Area of KPH Maria Donggomasa Center

No	Location	Village	Subdistrict	Regency/City	Area (Ha)
1	Oi Niu-Lawata	Dara	Rasanae Barat	Kota Bima	23.85
2	Ule	Ule	Asakota	Kota Bima	5.73
3	Kolo	Kolo	Asakota	Kota Bima	0.13
4	Poja	Poja	Sape	Bima	5.94
5	Kowo	Kowo	Sape	Bima	22.97
6	Sangia	Sangia	Sape	Bima	28.48
7	Soro	Soro	Sape	Bima	40
8	Sumi	Sumi	Lambu	Bima	29.29
9	Lambu	Lambu	Lambu	Bima	114.8
10	Nggelu	Nggelu	Lambu	Bima	9.11
11	Kangga	Kangga	langgudu	Bima	3
12	Sambane	Sambane	langgudu	Bima	3.8
Total Area (Ha)		287.1			

* Data Source: PKSDAE Section BKPH NTB Province, 2022.

The data in the table above show the distribution of protected mangrove forest areas in the coastal border area of Bima Regency and Bima City. From the area of protected mangrove/ mangrove forest in the coastal border area mentioned above, the location and area of protected mangrove/ mangrove forest in the Asakota coastal border area of Bima City are located in the Oi Niu Lawata, Ule, and Kolo areas, with a total area of 29.21 Ha.

The condition of mangrove forests in the Asakota coastal area of Bima City and Bima Regency based on the results of research conducted directly by researchers using the method of direct observation at the location (observation) shows that over time mangrove/mangrove forests along the Asakota coastal area have experienced a reduction in area due to the reclamation of coastal areas both legally carried out by the Government, BUMN (PT PELINDO) for

the expansion of port dock construction, both the construction of ports of ships and boats transporting goods and the construction of ports of ships and boats transporting people. In addition, the cause is that the reclamation activities for the expansion of Bima City are carried out legally by the Bima City Government for the construction of public facilities and carried out by the surrounding community. Similarly, in the Asakota coastal area of Bima Regency, the Bima Regency government also reclaimed the coastal area to build public facilities in the form of road expansion across Bima City and Bima Regency, from one lane to two lanes.

However, this legal reclamation with the permission of the central government by the Bima City and Bima District governments did not cause the loss of mangrove forest areas because the Bima City and Bima District governments always try to rejuvenate mangrove forest areas that were damaged by reclamation by reforestation or reforestation so that the existence of mangrove forest areas along the coast is guaranteed in order to protect the coastal area from land abrasion caused by tidal waves, especially during the rainy season. In addition, the mangrove forest along the coastal area becomes an attractive urban forest park for people visiting and recreating on the coastal area around the harbour, Kolo and Ama Hami beaches in Bima City, as well as Kelaki Beach and Panda Beach in Bima Regency.

The mangrove condition described above can be seen in the photo document of mangrove forests that grow naturally along the coastal areas of Bima City.

Image 1. Photo of Mangrove Forest Along The Coastal Area of Bima



* Photo taken in August 2023.

Some mangrove forests in the Asakota coastal area of Bima City have been destroyed due to reclamation activities carried out by the state-owned company PT PELINDO for the expansion of the Port Pier, the central government for the construction of the POSAL (Naval Post) Office, and the Bima City government itself for the expansion of public facilities, such as the expansion of the market, the construction of an amusement park, and city tourism. This condition can be seen in the picture below.

The photo documentation below shows the condition of the mangrove forest area on the coast of Asakota, which was reclaimed. The designation was to build public facilities (POSAL BIMA Office), expand the Port Pier, and replant part of the area (Photo in August 2023).

Image 2. Photo of POSAL Bima Office



* Photo taken in August 2023.

The second photo below shows the reclaimed land used to build public facilities in the form of parks and city parks and connecting roads in the reclaimed land area. In addition, there is also an area of mangrove forest as a result of reforestation carried out by the government.

Image 3. Photo of Reforestation of Mangrove Forest in Bima



* Photo taken in August 2023.

Forms of Legal Protection of Mangrove Forests in the Coastal Area of Bima Bay

There are two forms of forest legal protection, namely preventive legal protection and repressive legal protection. Both types of legal protection can be carried out by the government, which has the authority granted by the law itself. The government only owns preventive authority in the form of legislation formation, socialization, implementation, and law enforcement. Following F.A.M. Stroink and J.G Steenbeek's theory, The term authority or authority is parallel to "authority" in English and "bevoegdheid" in Dutch.²²

²²F.A.M. Stroink dan J.G Steenbeek dikutip dari Nur,*Op. Cit.*, p. 65.

Satjipto Raharjo said that legal protection protects human rights that are harmed by others, and this protection is given to the community so that they can enjoy all the rights granted by law.²³ Similarly, Philipus M. Hadjon said that Legal Protection is the protection of dignity and the recognition of human rights owned by legal subjects based on legal provisions that protect them from arbitrariness.²⁴

The forms of legal protection of mangrove/mangrove forests carried out by the authorized government in general, including mangrove/mangrove forest areas in the coastal area of Bima Bay, are: 1. preventive legal protection and repressive legal protection. Preventive legal protection is carried out by establishing legal rules, socializing legal rules, implementing legal rules, and implementing supervision. Meanwhile, repressive legal protection is in the form of law enforcement and legal sanctions against legal entities or individuals who utilize mangrove forest areas in the coastal area of Bima Bay without a permit;

Legal protection in the first form is in the form of the government forming legislation in the forestry sector, the environmental sector, and the coastal and small islands sector. These laws and regulations include:

1. Law Number 41 Year 1999, concerning Forestry.
2. Law No. 32 of 2009 on Environmental Protection and Management.
3. Law No. 27 of 2007 on Coastal and Small Islands as amended by Law No. 1 of 2014 on Coastal and Small Islands.
4. Government Regulation No. 6 of 2007 on Forest Management and Preparation of Forest Management Plans.
5. Government Regulation No. 45 of 2004 was amended by Government Regulation No. 60 of 2009 on Forest Protection Procedures.
6. Presidential Regulation No. 73 of 2012 on the National Strategy for Mangrove Ecosystem Management.

These laws contain provisions on forest protection and sanctions. Law No. 41/1999 on Forestry in Article 50 specifies the following prohibitions on the utilization and use of forest areas:

- 1) Every person is prohibited from damaging forest protection infrastructure and facilities.
- 2) Every person granted an area utilization business license, an environmental service utilization business license, a timber and non-timber forest product utilization business license, and a timber and non-timber forest product collection license is prohibited from carrying out activities that cause forest damage.
- 3) Every person is prohibited:
 - a. working on and or using or occupying forest areas illegally;
 - b. encroaching the forest area;
 - c. Felling trees within the forest area with a radius or distance of up to:
 1. 500 (five hundred) meters from the edge of a reservoir or lake;
 2. 200 (two hundred) meters from the edge of springs and left and right of rivers in swampy areas;
 3. 100 (one hundred) meters from the left and right bank of a river;
 4. 50 (fifty) meters from the left and right banks of tributaries;
 5. 2 (two) times the depth of the ravine from the edge of the ravine;

²³Satjipto Rahardjo, *Op. Cit.*, p. 253

²⁴Philipus M. Hadjon, *Opcit.* p. 20

6. 130 (one hundred thirty) times the difference between the highest and lowest tide from the shore.

d. Etc.

Violation of the provisions of Article 50 will be subject to sanctions as stipulated in Article 78 regarding criminal sanctions, namely a maximum imprisonment of 10 years and a maximum fine of 5 billion rupiah.

Furthermore, Law Number 32 of 2009 concerning Environmental Protection and Management, in Article 1 number 16, determines that environmental destruction is an act of a person that causes direct or indirect changes to the physical, chemical and/or biological properties of the environment so that it exceeds the standard criteria for environmental damage. Furthermore, Article 36 determines:

- 1) Every business and/or activity requiring an EIA or UKL-UPL must have an environmental permit.
- 2) As referred to in paragraph (1), environmental permits shall be issued based on environmental feasibility decisions as referred to in Article 31 or UKL-UPL recommendations.
- 3) As referred to in paragraph (1), the environmental license must include the requirements contained in the environmental feasibility decision or UKL-UPL recommendation.
- 4) Environmental permits are issued by the Minister, Governor, or regent/mayor following their Article 67: Every person must preserve environmental functions and control environmental pollution and/or damage.

Article 68 Every person conducting business and/or activities is obliged to: a. provide information related to environmental protection and management in a correct, accurate, open and timely manner; b. maintain the sustainability of environmental functions, and c. comply with the provisions regarding environmental quality standards and/or environmental damage standard criteria.

Article 69 (1) states that Every person is prohibited from a. committing acts that result in pollution and/or destruction of the environment; Violation of this provision will be subject to penalties as stipulated in Article 98 (1). Every person who intentionally commits acts that result in the exceeding of ambient air quality standards, water quality standards, seawater quality standards, or standard criteria for environmental damage shall be punished with imprisonment for a minimum of 3 (three) years and a maximum of 10 (ten) years and a fine of at least Rp3.000,000,000.00 (three billion rupiahs) and a maximum of Rp10,000,000,000.00 (ten billion rupiahs).

Law No. 27/2007 on Coastal and Small Islands, amended by Law No. 1/2014 on Coastal and Small Islands, regulates the obligations, prohibitions and sanctions in the utilization of coastal areas as follows:

Article 34 and Article 60 (2) determine the obligations in conducting reclamation as follows:

Article 34 stipulates as follows:

- 1) Coastal Areas and Small Islands are reclaimed to increase their technical, environmental, and socio-economic benefits and/or added value.
- 2) The implementation of reclamation, as referred to in paragraph (1), must maintain and pay attention to:
 - a. Sustainability of life and livelihood of the community;
 - b. balance between the interests of utilization and the interests of preserving the environmental functions of the Coastal and Small Islands and
 - c. technical requirements for material extraction, dredging, and stockpiling.

Article 60 paragraph (2) stipulates: Communities in the Management of Coastal Areas and Small Islands are obliged to:

- a. provide information regarding the Management of Coastal Areas and Small Islands;
- b. safeguard, protect, and maintain the sustainability of the Coastal Zone and Small Islands;
- c. submit reports on the occurrence of hazards, pollution, and/or environmental destruction in the Coastal Zone and Small Islands;
- d. monitor the implementation of the Coastal Zone and Small Islands Management Plan and/or
- e. Implementing the coastal zone and small island management programs agreed upon at the village level.

Meanwhile, the provisions on criminal sanctions are regulated in Article 73 (1), which stipulates as follows: Shall be punished with imprisonment for a minimum of 2 (two) years and a maximum of 10 (ten) years and a fine of at least Rp2,000,000,000.00 (two billion rupiahs) and a maximum of Rp10,000,000,000.00 (ten billion rupiahs) every person who intentionally:

- a. conducting coral reef mining activities, extracting coral reefs in conservation areas, using explosives and toxic materials, and/or other methods that destroy coral reef ecosystems as referred to in Article 35 letters a, b, c, and d;
- b. using methods and methods that damage mangrove ecosystems, converting mangrove ecosystems, cutting down mangroves for industrial and residential activities, and/or other activities as referred to in Article 35 letters e, f, and g;

Specifically on mangrove forests, which are regulated in Presidential Regulation No. 73/2012 on the National Strategy for Mangrove Ecosystem Management, the considerations section explains and mandates as follows:

- a. The mangrove forest ecosystem is a coastal wetland resource and life support system and natural resources of very high value; therefore, it needs protection, preservation and sustainable utilization for the welfare of the community;
- b. To carry out sustainable mangrove ecosystem management, which is an internal part of the coastal area integrated with Watershed Management, coordination, integration, synchronization, and synergy across sectors, agencies, and institutions are required.

Article 1, numbers 1 to 3, explains as follows:

1. The National Strategy for Mangrove Ecosystem Management, in the future abbreviated as SNPEM, is an effort in the form of policies and programs to realize sustainable mangrove ecosystem management and sustainable, prosperous communities based on available resources as an integral part of the national development planning system.
2. A Mangrove Ecosystem is the unity between mangrove vegetation communities associated with fauna and micro organisms so that they can grow and develop in areas along the coast, especially in tidal areas, lagoons, and protected river estuaries with mud or sandy mud substrates, forming a sustainable environmental balance.
3. Sustainable mangrove ecosystem management is all efforts to protect, preserve and sustainably utilize through an integrated process to achieve the sustainability of mangrove ecosystem functions for the welfare of society.

Based on the provisions of Article 1 numbers 1 to 3, the National Mangrove Ecosystem Management Strategy is an effort in the form of policies and programs to realize sustainable mangrove ecosystem management and sustainable, prosperous communities based on available resources as an integral part of the national development planning system. Sustainable mangrove ecosystem management is all efforts to protect, preserve, and sustainably utilize mangrove ecosystem functions through an integrated process to achieve the sustainability of mangrove ecosystem functions for the welfare of the community.

In order to implement the provisions of Article 1 numbers 1 to 3 above, this Presidential Regulation regulates the implementation team both at the Provincial level and at the Regency and City levels as follows:

Article 9 (1) In implementing SNPEM in the Province, the Governor stipulates the Provincial Mangrove Ecosystem Management Strategy and forms the Provincial Mangrove Ecosystem Management Strategy Coordination Team.

(2) To support the implementation of the tasks of the Provincial Mangrove Ecosystem Management Strategy Coordination Team, the Chairperson of the Provincial Mangrove Ecosystem Management Strategy Coordination Team establishes a Provincial Mangrove Working Group.

Article 10 (1) In implementing the SNPEM at the Regency/Municipal level, the Regent/Mayor shall establish a Regency/Municipal Level Mangrove Ecosystem Management Strategy and form a Regency/Municipal Level Mangrove Management Strategy Coordination Team.

(2) To support the implementation of the tasks of the Regency / City Level Mangrove Ecosystem Management Strategy Coordination Team, the Chairperson of the Regency / City Level Mangrove Ecosystem Management Strategy Coordination Team forms a Regency / City Level Mangrove Working Group.

Article 11 The working relationship between the National Level Coordination Team, Provincial Level Coordination Team, and Regency/City Level Coordination Team is coordinative and consultative.

Based on the above provisions, the central government, provincial government, and regency/city government are responsible for implementing mangrove protection. The working relationship is coordinative and consultative.

The various provisions of the legislation mentioned above clearly regulate the rights and obligations, prohibitions and legal sanctions for persons or legal entities or agencies that commit violations of forest destruction and environmental destruction, both forest destruction and environmental destruction located inland areas and those located in coastal areas. Thus, legal efforts to protect forests, more specifically, the legal protection of mangrove forests in the form of regulations with laws and regulations, have been carried out well by the government; only the implementation requires commitment from law enforcers.

Furthermore, the next effort made by the government is socialization, intended to enlighten and understand the community about the importance of mangrove forests for humans and the environment, as well as the rights, obligations, responsibilities, and legal sanctions for violations.

Next is the implementation and enforcement of forestry law, environmental law and forests in coastal areas that are intended to provide legal protection to the community so that the community knows, obeys, is aware and makes the laws and regulations as guidelines, directions, guidance, and instruments in their daily lives. The law's role here is to control the community in dealing with forests and the environment. In addition, the law acts as a tool to resolve legal issues so that mutual relations between legal subjects and legal subjects or between legal subjects and legal objects are re-established.

It is intended to provide legal protection to the community so that people know, obey, realize and make the laws and regulations as guidelines, directions, guidance, and instruments in their daily lives. The law's role here is to control the community in dealing with forests and the environment.

Furthermore, the government and the judiciary have also made efforts to protect mangrove forests in a repressive manner by examining, trying, and punishing perpetrators of legal violations in land use on the Asakota coast.

The case of mangrove forest utilization in the Asakota coastal area of Bima City that has been examined, tried and decided by a court judge is the construction of a recreation area carried out by the Deputy Mayor of Bima Feri Sofian, SH, without an environmental permit from the authorized government. This case has been examined, tried, and decided by the court at the first level and up to the last highest court, namely the Supreme Court of the Republic of Indonesia. With decision Number 27751.K/Pid.Sus/2022, dated July 29, 2022, stating that the perpetrator is guilty of carrying out certain activities in the mangrove forest/mangrove area on the coast without an environmental permit, thus punishing the perpetrator with corporal punishment of 6 (six) months imprisonment and a fine of Rp.1,000,000,000. (one billion rupiah) to be paid to the state, provided that if the fine is not paid, it will be replaced by 1 (one) month imprisonment.

The punishment of perpetrators who commit violations, regardless of who the perpetrators are, by the judges of the court of first instance, the appellate court and the Supreme Court judges shows that the government and judiciary are committed to protecting the existence of forest areas and environmental protection.

Efforts Made by the Government of Bima City and Regency to Protect Mangrove Forests along the Coast of Asakota

The results of direct observation by researchers in the field show that in the Asakota coastal area, coastal reclamation activities are carried out by individuals, legal entities, and the government legally to construct public facilities. These activities damage some mangrove forest areas. However, the reclamation activities were followed by replanting mangrove forests to protect the environment from sea wave abrasion.

Efforts made by individuals, legal entities and the government of Bima City and Bima District to protect mangrove forests along the coast of Asakota are helping the central government to make people aware of the importance of mangrove forests for life and the environment so that they do not destroy them. In addition, the government conducted rejuvenation by replanting damaged areas and new areas along the coast of Bima Bay and maintaining and protecting mangrove forests with the central government.

The condition of the mangrove debt rejuvenation by the government can be seen in the following picture.

Image 4. Photo of The Mangrove Debt Rejuvenation by The Government





* Photo taken in August 2023.

The photo above is the result of original documentation conducted by researchers in the field. It shows that the Bima City and Bima Regency governments, in collaboration with the central government, in this case, the PKSDAE Section of the NTB Province BKPH, have attempted to rejuvenate mangrove forests in the Asakota coastal border area of Bima City and Bima Regency.

CONCLUSION

The forms of legal protection of mangrove/mangrove forests carried out by the government in general, including mangrove/mangrove forest areas in the coastal area of Bima Bay, are preventive legal protection and repressive legal protection. Preventive legal protection is carried out by establishing legal rules, socializing legal rules, implementing legal rules, and implementing supervision. At the same time, repressive legal protection is in the form of law enforcement and legal sanctions against legal entities or individuals who utilize mangrove forest areas in the coastal area of Bima Bay without environmental permits.

Efforts made by the governments of Bima City and Bima Regency to protect mangrove forests along the coast of Asakota are helping the central government to make people aware of the importance of mangrove forests for life and the environment so that they do not destroy them, conducting rejuvenation by replanting in damaged areas and new areas along the coast of Bima Bay and maintaining and protecting the existence of mangrove forests together with the central government.

RECOMMENDATION

Based on the findings above, the researcher can provide recommendations for action as follows:

1. For forest areas' protection and supervision to run effectively, the central government should give some of the authority to local governments through supervision and protection.
2. The central and local governments
3. sho-utilization plan, implement, use, and monitor forest areas.
4. In particular, the planning, implementation, utilization and supervision of customary forests should be delegated to the indigenous community alliance.

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