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## Existence of Protected Forest Function as Protection Area

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### Abstract

The enactment of Law No. 41 Year 1999 emphasizes the position of protected forests as protected areas that must be maintained to provide protection for the surrounding area. Law No. 41/1999 stipulates that open-pit mining activities are prohibited in protected forest areas. However, the effectiveness of Law No. 41/1999 is questioned by the issuance of Law No. 19/2004 which still accommodates open-pit mining in protected forest areas with the argument that the law should not apply retroactively. This article uses normative legal research methods, namely normatively examining various related regulations governing the function of protected forests. The results show that the birth of Law No. 19/2004 which allows several mining entrepreneurs to carry out open-pit mining activities in protected forest areas has resulted in protected forest areas being no different from production forest areas. This can threaten the function of protected forest areas as areas that provide protection for surrounding areas from various natural disaster hazards.

**Keywords:** Existence, Function of Protected Forest, Forestry Law

### Abstrak

Lahirnya Undang-undang Nomor 41 Tahun 1999 mempertegas kedudukan hutan lindung sebagai kawasan lindung yang wajib dijaga fungsinya dalam memberikan perlindungan untuk kawasan sekitarnya. Dalam Undang-undang Nomor 41 Tahun 1999 menentukan bahwa aktivitas pertambangan terbuka dilarang di kawasan hutan lindung. Namun keberadaan Undang-undang Nomor 41 Tahun 1999, efektivitasnya dipertanyakan dengan dikeluarkannya Undang-undang Nomor 19 Tahun 2004 yang tetap mengakomodir pertambangan terbuka di kawasan hutan lindung dengan dalil hukum tidak boleh berlaku surut. Artikel ini mempergunakan metode penelitian hukum normatif yaitu mengkaji secara normatif berbagai peraturan terkait yang mengatur fungsi hutan lindung. Hasil penelitian menunjukkan bahwa lahirnya Undang-undang Undang-undang Nomor 19 Tahun 2004 yang mengizinkan beberapa pengusaha pertambangan melakukan aktivitas tambang terbuka di kawasan hutan lindung mengakibatkan kawasan hutan lindung tidak ada bedanya dengan kawasan hutan produksi. Hal ini bisa mengancam fungsi kawasan hutan lindung sebagai kawasan yang memberikan perlindungan untuk kawasan di sekitarnya dari berbagai bahaya bencana alam.

**Kata kunci:** Existence, Function of Protected Forest, Forestry Law

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## Introduction

Between humans and their environment, they are integrated as one inseparable unit. Humans cannot live without the environment, because everything they need is available and taken from their environment. The relationship between humans and their environment is so close that the relationship is a functional relationship. Therefore, humans need to maintain and preserve the environment. (Kurniawan, 2019)

The environment is a gift from God Almighty that should be preserved and managed for its utilization so that it can still be a source of life support for humans and other living things in a sustainable manner for the sake of sustainability and improving the quality of life itself. (Tonggo et al., 2022)

Utilization of natural resources for development and preservation of environmental functions, should not conflict and sacrifice each other, but both must support each other and run parallel. This means that it needs to be examined further, to what extent the implementation of development by utilizing natural resources does not ignore the issue of preserving environmental functions, so that environmentally sound development can be realized and a preserved environment will continue to be utilized for generations to come. (Humaida et al., 2020)

One of the natural resource sectors utilized to support development is the mining sector. To ensure the implementation of environmentally sound development, based on the preservation of the environment for the survival of future generations, (Humaida et al., 2020) then the mechanism must be regulated in legislation, which essentially aims to fortify natural resources throughout the territory of Indonesia to be preserved. (Fitriah, 2020). Indonesia is a country rich in abundant natural resources surrounded by islands. Indonesia is the largest archipelago in the world. (Hadiyati & Cindo, 2021)

Regulations governing the environment in Indonesia relating to the utilization of natural resources to support development are quite numerous and scattered in various regulations. This is in line with the concept of Indonesia as a state based on law, not power. (Manan, 2015)

The term and concept of "State of Law" has been popular in the life of the state in the world for a long time before the various terms that are touted as the concept of the State of Law were born. The beginning of the presence of the idea of the rule of law dates back to Plato. Plato introduced the concept of *Nomoi*. In *Nomoi*, Plato argues that good state administration is based on good laws (regulatory patterns). (Astomo, 2017). The state in principle is not based on mere power (*matchtsstaat*), but is also based on law. In a state of law, legal regulations are not created for bad purposes. (Airlangga, 2019)

According to the theory of the rule of law (*rechtsstaat*) emphasizes legality in all forms. This means that the implementation of the state

administration must be carried out based on the legislation. (Jumadi, 2018). Because Indonesia states that it is a state of law, it means that all state administration must be based on law, including in this case the activities of utilizing the mining sector to support development.

In general, mining activities are carried out in forest areas, therefore mining activities must not only comply with the provisions stipulated in the mining law, but also with the Forestry Law. The enactment of Law Number 5 of 1967 concerning Basic Provisions of Forestry was the first regulation to regulate the natural resources of the forestry sector. In Law No. 5/1967, forests based on their functions are divided into Protection Forests, Production Forests and Nature Reserve Forests. What is meant by protection forest is a forest area which, due to its natural characteristics, is intended to regulate water management, prevent floods and erosion, and maintain soil fertility." (Article 3 Paragraph 1). Then what is meant by production forest is a forest area intended for the production of forest products to fulfill the needs of the community in general and especially for development, industry and export. (Article 3 Paragraph 2). Meanwhile, what is meant by nature reserve forest is a forest area which, due to its unique nature, is specifically designated for the protection of biological nature and/or other benefits." (Article 3 Paragraph 3)

In Law No. 5/1967 there are no regulations that directly prohibit or allow mining activities in protected forests. According to the government, the absence of regulations that directly prohibit mining activities in protected forests is interpreted by the government that it has the authority to issue licenses for mining activities in protected forests. The first license was granted to PT Freeport Indonesia Comp with Number 82/EK/KEP/4/1967, which was followed by other licenses.

In 1999, Law Number 41 of 1999 concerning Forestry was born, replacing Law Number 5 of 1967. Unlike the previous Forestry Law, Forestry Law Number 41 of 1999 clearly and explicitly prohibits open-pit mining activities in protected forests, which is regulated in Article 38 paragraph 4 which reads: "In protected forest areas, open-pit mining is prohibited".

The prohibition of open-pit mining in protected forests as stipulated in Law No. 41/1999, according to the government, became a problem because until 2004 there were around 158 mining companies that received licenses to carry out mining activities in protected forest areas with an

open-pit mining system. Moreover, the mining entrepreneurs threatened to sue to arbitration, foreign embassy intervention, and threatened to divert investment to other countries. Finally, to overcome these problems, the Indonesian government issued Government Regulation in Lieu of Law Number 1 of 2004 adding transitional rules from Law Number 41 of 1999, namely adding Article 83 A so that there is legal certainty in mining companies that are exploiting Indonesian forests in protected forest areas declared to remain valid, until the expiration of the permit or agreement in question.

This Government Regulation in Lieu of Law No. 1 of 2004 later became Law No. 19 of 2004 on the Stipulation of Government Regulation in Lieu of Law No. 1 of 2004 on the Amendment of Law No. 41 of 1999 on Forestry into Law.

### Research Problems

What is the existence of protected forests as protected areas for surrounding areas in Law No. 41/1999 after the issuance of Law No. 19/2004?

### Research Methods

The method used in this research is the normative legal method, namely examining various laws and regulations governing the function of protected forest areas, using a statutory approach, conceptual approach and case approach. The method of analyzing legal materials uses a qualitative method, namely by organizing and classifying legal materials in accordance with the problems and research objectives. After all legal materials are organized and classified, analysis and or interpretation is carried out so that answers to the problem formulation are found.

### Discussion

#### 1. Principle of Environmental Function Preservation

The concept of Indonesian state power over the earth, water and the wealth contained therein is regulated in Article 33 paragraph (3) of the 1945 Constitution, which must be fully intended for the prosperity of the people. (Fitriah, 2020) Theoretically, according to Abrar Saleng, the form of state order in the mining sector includes three aspects, namely:

1. Regulatory aspects

2. Aspects of taking care

3. Supervisory aspect.

This aspect of regulation is an absolute right of the state that cannot be left to the private sector and is the most important aspect of the state's role. (Saleng, 1999)

Furthermore, according to Abrar Saleng, the role and dominance of the state in the regulatory aspect aims to determine and regulate institutional structures, patterns of relations between the government, economic actors and the people as a whole in the economic field. The dominance of the state is mainly to shape the orientation of the state administrators themselves, economic actors and the people as a whole in a normative order. (Saleng, 2007)

The legal principle that must be obeyed by all parties in the management and utilization related to land, which of course in this case also includes forest areas, which are part of the earth of the Indonesian state, has the obligation to maintain soil fertility as stipulated in Article 15 of the Basic Agrarian Law which reads: "Maintaining the land, including increasing its fertility and preventing its damage, is the obligation of every person, legal entity or agency that has a legal relationship with the land, with due regard to the economically weak." The legal principle of the obligation to maintain soil fertility stipulated in the Basic Agrarian Law as the Organic Law of all sectoral laws and regulations relating to the earth, water and space as well as all natural resources contained therein, including laws governing forestry, namely Law No. 41 of 1999, is essentially also contained in Law No. 41 of 1999 as stipulated in Article 2 which reads: "The implementation of forestry is based on the principles of benefit and sustainability, populism, justice, togetherness, openness, and integration."

Article 3 of Law No. 41/1999 stipulates that the implementation of forestry aims for the greatest prosperity of the people in an equitable and sustainable manner, including by maximizing various forest functions in order to maintain balance and sustainability in all forest functions, including one of which is in protected forest areas, then increasing the ability to develop community capacity and empowerment in a participatory, equitable and environmentally sound manner so as to create social and economic resilience and resilience to the effects of external changes and ensure equitable and sustainable distribution of benefits.

The obligation to preserve the environment is more clearly regulated in legislation that specifically regulates the environment of the Indonesian state, namely Law Number 4 of 1982 jo Law Number 23 of 1997 jo Law Number 32 of 2009 concerning Environmental Protection and Management (State Gazette of 2009 Number 140, Supplement to State Gazette Number 5059). Article 1 point 2 of UUPPLH regulates systematic and integrated efforts to protect and manage the environment so that its functions are maintained from various forms of environmental problems, starting from planning, exploitation of natural resources to law enforcement. This provision also stipulates that if the Environmental Protection and Management (RPPLH) has not been prepared, the utilization of natural resources is carried out based on the carrying capacity and capacity of the environment.

The authority of the state in forest control is regulated in Article 4 paragraph (2) of Law No. 41/1999, which stipulates that the control of forests by the State as referred to in paragraph (1) authorizes the government, among others, to regulate and determine legal relationships between people and forests, as well as to regulate legal acts concerning forestry.

## **2. Definition and Function of Protection Forest**

The state's authority to control forests is regulated in Article 4 paragraph (2) of Law No. 41/1999, which stipulates that the control of forests by the state as referred to in paragraph (1) authorizes the government, among others, to regulate and determine legal relationships between people and forests, as well as to regulate legal acts concerning forestry.

Forest according to Article 1 point (2) of Law No. 41/1999 is "an ecosystem unit in the form of an expanse of land containing biological natural resources dominated by trees in a natural environment, which cannot be separated from one another." Meanwhile, the definition of forest area according to Article 1 point (3) of Law No. 41/1999 is "a certain area designated and or determined by the government to be maintained as permanent forest". The definition of forest area was later changed with the issuance of the Constitutional Court Decision Number: 045/PUU-IX/2011 concerning the judicial review of Article 1 point 3 of the Forestry Law to become: forest area is a certain area designated by the government to be maintained as a permanent forest.

Based on their main function in Article 6 of Law No. 41/1999, forests are divided into three categories: conservation forests, protected forests and production forests. The definition of production forest is a forest area that has the main function of producing products. (Article 1 point 7 of Law No. 41 of 1999). Protection forest is a forest area that has the main function of protecting the life support system to regulate water management, prevent flooding, control erosion, prevent seawater intrusion, and maintain soil fertility. (Article 1 point 8 of Law No. 41 of 1999). Meanwhile, the definition of conservation forest is a forest area with certain characteristics, which has the main function of preserving the diversity of plants and animals and their ecosystems. (Article 1 point 9 of Law No. 41 of 1999).

Article 5 paragraph (2) of Law Number 26 of 2007 concerning Spatial Planning stipulates that "spatial planning based on the main function of the area, consists of protected areas and cultivation areas. Article 1 point (21) of Law Number 26 of 2007 concerning Spatial Planning explains that protected areas are areas designated with the main function of protecting the preservation of the environment which includes natural resources and artificial resources. Areas included in the category of protected areas are:

- a. areas that provide protection for subordinate areas which include protected forest areas, peat areas, water catchment areas;
- b. local protection areas which include coastal borders, river borders, areas around lakes/reservoirs, areas around springs,
- c. green open areas including urban forests;
- d. nature reserve areas which include nature reserves, wildlife reserves;

- e. nature conservation areas which include national parks, botanical forest parks, nature tourism parks;
- f. cultural heritage areas;
- g. natural disaster prone areas which include, among others, areas prone to volcanic eruptions, earthquakes, landslides, and tidal waves and floods;
- h. other protected areas including hunting parks, biosphere reserves, coral reefs, nephrotic plasma protection areas, animal refuge areas and mangrove forested coastal areas.

Government Regulation No. 13/2017 on the 2017 National Spatial Plan states that national protected areas consist of:

1. areas that provide protection to their subordinate areas;
2. local protection area;
3. conservation area;
4. deleted;
5. geological protected area; and
6. other protected areas.

Areas that provide protection to subordinate areas consist of: protected forest areas; peat areas; and water catchment areas. Protected forest areas are defined by criteria:

1. Forest areas with slope, soil type, and rainfall intensity factors whose sum of the multiplied weights equals 175 (one hundred seventy-five) or more;
2. Forest areas that have a slope of at least 40% (forty percent);
3. Forest areas that have an elevation of at least 2,000 (two thousand) meters above sea level; or
4. Forest areas that have highly erosion-sensitive soils with slopes of more than 15% (fifteen percent).

### **3. The Existence of Protected Forest after the Enactment of Law No. 19/2004 on the Amendment to Law No. 41/1999 on Forestry**

Prior to Law No. 41/1999 on Forestry, the law governing forestry was Law No. 5/1967. As the first Law that regulates Forestry, Law No. 5 of 1967 does not contain regulations that directly prohibit or allow mining activities in forest areas, so it seems that the prohibition has only appeared in Law No. 41 of 1999 as a Law that replaces Law No. 1967, whereas if



analyzed in depth, Law No. 1967 is tougher than Law No. 41 of 1999 in prohibiting mining activities in any form in protected forest areas. This can be seen in Article 3 paragraph (2) of Law No. 1967, which explains that protected forest areas only function as water management, flood prevention and maintenance of soil fertility without mentioning other functions that support development. Furthermore, Article 5 paragraph (2) letter a of Law No. 1967 stipulates that the state in terms of determining and regulating the planning, allocation and use of forests must be adjusted to their functions. This means that utilizing forests outside the functions stipulated in Article 3 paragraph (1) of Law No. 1967 is clearly an act contrary to this Law. This article can be interpreted as an article that limits the state's power over protected forest areas. This is because Article 3 paragraph (1) of Law No. 1967 does not mention other functions of protected forests that are meant to support the country's development.

The article on the definition of protected forests contained in Law No. 1967 is different from the definition of protected forests stipulated in Law No. 41 of 1999 as the Forestry Law, replacing Law No. 1967, where Article 1 letter (f) reads: "Protected forests are forest areas that have the main function as protection of life support systems to regulate water systems, prevent flooding, control erosion, prevent seawater intrusion, and maintain soil fertility". The wording that protected forests have a primary function can be interpreted to mean that protected forests can be used for other functions. This is clearer from Article 38 paragraph (4) of Law No. 41/1999, which reads "In protected forest areas, open-pit mining is prohibited". This further emphasizes the other functions, namely that only mining with an open system is prohibited, meaning that if the mining is carried out with a closed system, it does not violate this Law. So it is not unreasonable to say that the enactment of Law No. 41 of 1999 concerning Forestry has created legal uncertainty in the field of mining in forest areas, especially for license or agreement holders before the enactment of the Law. This was used as a reason by the government to issue Government Regulation in Lieu of Law Number 1 of 2004 concerning Amendments to Law Number 41 of 1999 concerning Forestry, which was later passed into Law Number 19 of 2004 concerning Amendments to Law Number 41 of 1999 concerning Forestry.

The government's argument seems to provide an explanation that activities in the mining sector, especially in protected forest areas with an open pit mining system, have a legal basis or are regulated in the previous Forestry Law before the birth of Law Number 41 of 1999. In fact, as explained above, this is not the case, because the previous Forestry Law, namely Law Number 1967, clearly emphasized that protected forests function as areas for regulating water systems, preventing floods and maintaining soil fertility without mentioning other functions such as supporting development. The possibility of utilizing protected forests to support development other than for protected areas is regulated in Law No. 41/1999, provided that it is carried out under a closed mining system.

This explains that the substance regulated in Article 38 paragraph (4) of Law Number 41 Year 1999, implies that the implementation of the legal principle of preservation of environmental functions in regulating the function of protected forest areas in order to maintain their function as protected areas for the surrounding areas, does not have to be interpreted as an area that cannot be touched at all or utilized physically. The regulation of the function of protected forest areas in this law allows them to be utilized or taken advantage of physically, but it must be regulated so that the utilization of the protected forest area does not reduce the ability of the protected forest area to function as an area that provides protection for the surrounding area from various kinds of natural disasters as its main function, while not reducing its function as a container or habitat for all living things in the protected forest area. For this reason, if you want to utilize a protected forest area other than its main function, you need a comprehensive study from various related sciences so that it can really be academically accounted for if the utilization of the protected forest area can still ensure that the function of the protected forest area as a protected area for the surrounding area is maintained.

From the discussion above, it is unjustified for the government to say that the issuance of Law No. 41/1999 as an amendment to Law No. 5/1967 creates legal uncertainty in the field of mining in protected forest areas, especially for holders of licenses or agreements prior to the enactment of the Law. Because it is precisely the existence of Law No. 41 of 1999 that provides legal certainty for mining activities in protected forest areas, provided that it is not carried out with an open system. But

apparently the government did not feel enough, so it can be said that the issuance of Law No. 19 of 2004 shows the government's greed for forest exploitation that is never satisfied. The symptoms of massive exploitation of natural resources in an open manner, according to reality, have led to acts of destruction and annihilation of the ecosystem of life sources and the environment as a result of ecocide. (Laurensius Arliman S, 2018). More tragically, Law No. 19/2004 was born from a Government Regulation in Lieu of Law, which should only be issued if the state is in a state of emergency. In a state organization, the human element as an employee or state apparatus determines the running of a state organization, towards the direction that has been determined. (Fitriah, 2020)

Environmental problems that occur today are not only due to government policies that are not in favor of the environment, the lack of political commitment that is detrimental to the environment, but also due to the weak commitment of law enforcement officials themselves, (Johar, 2021) As a result, environmental problems in Indonesia are getting bigger, more widespread and more serious. Like a rolling snowball, it is getting bigger and bigger. The problems are not only local or translocal, but regional, national, trans-national and global. (Laurensius Arliman S, 2018).

Environmental damage in the forestry sector in Indonesia is a serious problem. (Nisa & Suharno, 2020) According to Suparto Wijoyo, forest destruction in the Republic has reached an alarming level. With deforestation of 2.5 to 3.8 million hectares per year, it is estimated that by 2020 Sumatra and Kalimantan will lose their forests. (Wijoyo, 2005).

Forest regulation in laws and regulations, especially in the Forestry Law as a national resource, should be utilized as much as possible for the community so that it should not be centered on a certain person, group or group. Therefore, forest utilization must be distributed equitably through increased community participation so that the community is increasingly empowered and develops its potential. Optimal benefits can be realized if forest management activities can produce high-quality and sustainable forests, both forests that function as protected forest areas and those that function as production forest areas. Such arrangements should place the environment not only as an object but also as a subject that not only has the obligation to support life but also has the right to be protected so that its balance and sustainability are maintained.

Many pessimistic people argue that the problem of preserving environmental functions in general and forest functions in particular will not be resolved until the end of time. This skeptical thinking is not only due to the complex nature of the problem of preserving forest functions and environmental functions, but also because efforts to maintain and improve the quality of preserving forest functions and environmental functions are always faced with efforts to fulfill economic needs that are often overwhelmed by the greed of human lust, both natural humans and humans in non-natural forms, namely the form of legal *entities* (*rechtspersoon, corporations*). (Humaida et al., 2020)

The existence of open pit mining activities in protected forests is further strengthened by the issuance of the Regulation of the Minister of Forestry of the Republic of Indonesia Number P.18/MENHUT-II/2011 concerning Guidelines for Borrowing Forest Areas where Article 5 reads:

- (1) The use of forest areas for mining activities as referred to in Article 4 paragraph (2) letter b shall be carried out with the following provisions:
  - a. in production forest areas can be carried out:
    1. open-pit mining; and
    2. mining with underground mining patterns.
  - b. in protected forest areas, mining can only be carried out with an underground mining pattern with the provision that it is prohibited to cause:
    1. land subsidence;
    2. permanent change in the main function of the forest area; and
    3. damage to groundwater aquifers.
  - c. for 13 (thirteen) licenses/agreements in the mining sector as stipulated in Presidential Decree No. 41 of 2004 in accordance with Law No. 19 of 2004, open-pit mining may be conducted in protected forests.

## Conclusion

The enactment of Law No. 19 of 2004, which illustrates the direction of Indonesia's natural resource utilization policy, especially in the forestry sector, which prioritizes economic aspects and overrides and even tends to ignore environmental aspects, has

resulted in the existence of protected forest functions as protection areas for surrounding areas being reduced or even lost. This has resulted in the existence of Law No. 41/1999, which attempted to provide a legal basis for the utilization of protected forest areas as areas that can be utilized to support development as long as the implementation continues to prioritize environmental aspects, becoming useless and even meaningless.

### Suggestion

The state should be consistent in making environmental principles a principle that must always be present in every regulation and policy issued by the State of Indonesia relating to the utilization of natural resources to support development. This includes the regulation of the function of protected forest areas as protection areas for the surrounding areas. The tolerance stipulated in Law No. 41/1999, which explicitly regulates that protected forest areas can be utilized for the mining sector as long as it is not with an open system, is a very extraordinary tolerance, considering that previously this provision was never regulated before.

### References

- Airlangga, S. P. (2019). Hakikat Penguasa dalam Negara Hukum Demokratis. *Cepalo*, 3(1), 1. <https://doi.org/10.25041/cepalo.v3n01.1783>
- Astomo, P. (2017). Eksistensi Peradilan Administrasi Dalam Sistem Negara Hukum Indonesia. *Jurnal Yuridis*, 1(1), 42–56. <https://ejournal.upnvj.ac.id/index.php/Yuridis/article/view/140>
- Fitriah, N. (2020a). Prinsip Hukum Pemanfaatan Sumber Daya Alam. *De Jure Critical Laws Journal*, 1 (1), 79–98. <https://doi.org/https://doi.org/10.48171/jwh.vii1.22>
- Fitriah, N. (2020b). TINJAUAN YURIDIS STANDAR MORAL. *Wasaka*, 8, No. 1.
- Hadiyati, N., & Cindo. (2021). Kontekstualisasi Pencemaran Ekosistem Laut Dalam Mencapai Sdgs: Suatu Kajian Hukum Lingkungan Di Indonesia 1. *NUSANTARA: Jurnal Ilmu Pengetahuan Sosial*, 8(3), 1–14. <http://jurnal.um-tapsel.ac.id/index.php/nusantara/index>
- Humaida, N., Aula Sa'adah, M., Huriyah, H., & Hasanatun Nida, N. (2020). Pembangunan Berkelanjutan Berwawasan Lingkungan (Sustainable

- Development Goals) Dalam Perspektif Islam. *Khazanah: Jurnal Studi Islam Dan Humaniora*, 18(1), 131. <https://doi.org/10.18592/khazanah.v18i1.3483>
- Implementasi, S., & Kurniawan, S. (2019). *Pendidikan Agama Islam Berwawasan Kearifan Lingkungan Di Sekolah Dasar* : 2(1), 19–43.
- Johar, O. A. (2021). Realitas Permasalahan Penegakan Hukum Lingkungan Di Indonesia. *Jurnal Ilmu Lingkungan*, 15(1), 54. <https://doi.org/10.31258/jil.15.1.p.54-65>
- Jumadi, J. (2018). Kedudukan Dan Fungsi Peraturan Daerah (Perda) Kabupaten/Kota Sebagai Instrumen Otonomi Daerah Dalam Sistem Perundang-Undangan Di Indonesia. *Jurnal Hukum Unsulbar*, 1(1), 27–40. <https://doi.org/10.31605/j-law.viii.49>
- Laurensius Arliman S. (2018). Eksistensi Hukum Lingkungan Dalam Membangun Lingkungan Sehat Di Indonesia. *Jurnal Ilmu Hukum*, 5(1), 761–770. <https://doi.org/10.5281/zenodo.1683714>
- Manan, A. (2015). Pencemaran Dan Perusakan Lingkungan Dalam Perspektif Hukum Islam. *Jurnal Hukum Dan Peradilan*, 4(2), 223. <https://doi.org/10.25216/jhp.4.2.2015.223-240>
- Nisa, A. N., & Suharno, S. (2020). Penegakan Hukum Terhadap Permasalahan Lingkungan Hidup Untuk Mewujudkan Pembangunan Berkelanjutan. *Jurnal Bina Mulia Hukum*, 4(2), 294. <https://doi.org/10.23920/jbmh.v4i2.337>
- Tonggo, A., Sihombing, M., Tobing, C. N. M., Pelita, U., & Kampus, H. (2022). 1, 2 1,2. 7(4), 56–64.
- Wijoyo, S. (2005). *Sketsa Lingkungan dan Wajah Hukumnya*. Airlangga University Press.