

Legal Balance and Environmental Sustainability in Indonesia's Mineral and Coal Licensing Regime: A Normative Study Based on Pancasila

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Article Info	Abstract
Received: 2025-05-30 Revised: 2025-06-30 Accepted: 2025-07-08 Keywords: Legal Balance, Pancasila, Mineral and Coal License	<i>Indonesia's mineral and coal licensing regime is caught between the need for economic growth and the need to protect the environment. The purpose of this normative legal research is to examine the regulatory architecture in the mineral and coal mining industry from the perspective of Pancasila as the basis of state philosophy, with particular emphasis on the principles of environmental preservation and the precepts of social justice. This article evaluates the consistency, coherence, and adequacy of the licensing regime in ensuring ecological sustainability and resource distribution using a doctrinal approach based on normative juridical analysis of legislation, the constitution, and Pancasila-based legal theory. The results show that the prevailing legal framework is unbalanced. Current regulations focus more on administrative efficiency and investment attractiveness, but do not adequately internalize the intergenerational environmental responsibilities established by the 1945 Constitution and environmental regulations. This article proposes urgent legal reform towards an integrative paradigm that brings together legal certainty, distributive justice, and environmental sustainability based on the third and fifth precepts of Pancasila. To create a balanced legal design, sustainable development principles such as precaution, ecological integrity, and participatory governance are used as standards. The study found that the mining licensing regime should be adapted to a legal theory based on Pancasila and sustainability principles. This is an important step towards equitable and sustainable natural resource governance in Indonesia. The results provide an important reference for academics, environmental stakeholders and policy makers.</i>

I. Introduction

The goal of the state is to achieve general welfare. However, in achieving this goal, it must be based on the law. The 1945 Constitution of the Republic of Indonesia is the written basic law that forms the basis for the administration of government and also serves as the foundation for development and protection of the Indonesian environment. The objectives of the Indonesian state are outlined in the fourth paragraph of the 1945 Constitution of the Republic of Indonesia, which states: "To protect all Indonesian people and the entire Indonesian archipelago, to promote the general welfare, to enlighten the life of the nation, and to participate in maintaining world order based on freedom."

The state has four main components: territory, people, government, and sovereignty. In the administration of the state, the government and the people are on equal footing. Economic growth, social justice, and environmental protection are integrated into a unified whole in the policies and implementation of the management of mineral and coal resources. Mineral and coal resources contained within Indonesia's mining legal jurisdiction, as a gift from the Almighty God, play a crucial role in meeting the basic needs of the people. Therefore, the management of mineral and coal mining must be controlled by the state to provide tangible added value to the national economy in the effort to achieve prosperity and equitable welfare for the people. Mining activities for minerals and coal play an important role in sustainable national economic growth. For this reason, mining management must be carried out wisely and prudently to ensure balance and sustainability.

The state, as the holder of the right to control, grants authority to the government to manage natural resources through the issuance of permits, licenses, and concessions. Authority over natural resources, minerals, and coal is outlined in Law No. 4 of 2009 and its amendment, Law No. 3 of 2020, which are entirely under the authority of the central government. Government Regulation No. 25/2021 regulates operational aspects such as royalties, digitalization of permits, priority WIUPK, and governance. Presidential Regulation No. 55/2022, as part of the implementation of Law No. 3/2020, and Government Regulation No. 25/2024 (amending Government Regulation No. 96/2021), provide limited delegation authority to provinces for non-coal and non-metal commodities. Legally, this regulation ensures central control while providing administrative flexibility based on delegation.

Mineral and coal mining within the jurisdiction of Indonesia is a non-renewable natural resource that plays a very important role in meeting the needs of many people. Therefore, it is controlled by the state to achieve prosperity for the community. Mineral and coal mining businesses are activities that play an important role in providing real added value to national economic growth and sustainable

regional development.

This indicates that the mining sector plays an important role in national economic growth and development. The mining sector also provides an economic multiplier effect as a source of income for underdeveloped regions. Mining operations also increase foreign exchange and local revenue. Mining areas also contribute to national and regional development.

From a constitutional perspective, the state's involvement in the management of mineral resources takes three forms: regulation, management, and supervision. The regulatory aspect is an absolute right of the state that cannot be delegated to the private sector and is the most important aspect for the state to play among the others. The challenges faced in mineral and coal mining include the influence of globalization, which promotes democratization, regional autonomy, human rights, environmental protection, technological and information development, intellectual property rights, and demands for increased private sector and community involvement. Therefore, new legislation in the field of mining and minerals must be formulated to re-regulate the management and operation of mineral and coal mining activities.

The provinces that contribute to state revenue from mining are Aceh, Riau, South Sumatra, East Kalimantan, Sulawesi, and Papua. However, these provinces also often experience separatist movements and cases of unrest due to the implications of laws and regulations that are considered to not provide justice and legal certainty. The Mineral and Coal Law contains the following main points:

1. Minerals and coal, as non-renewable resources, are controlled by the government and local governments, together with business actors, for their development and utilization.
2. The government provides opportunities for Indonesian business entities, individual cooperatives, and local communities to engage in mineral and coal mining based on permits, in line with regional autonomy, issued by the government and/or local governments according to their respective authorities.
3. In the context of decentralization and regional autonomy, the management of mineral and coal mining is carried out based on the principles of externalization, accountability, and efficiency, involving the government and local governments.
4. Mining operations must provide economic benefits and maximize the welfare of the Indonesian people.
5. Mining operations must accelerate regional development and encourage economic activities among small and medium-sized businesses and entrepreneurs, as well as encourage the growth of mining support industries.
6. In order to achieve sustainable development, mining operations must be carried out with consideration for environmental principles, transparency, and community participation.

In Indonesia, the management of natural resources, particularly minerals and coal

(minerba), presents a legal and policy dilemma between the economic interests of the state and the obligation to preserve the environment. With the enactment of Law No. 3 of 2020 amending Law No. 4 of 2009 on Mineral and Coal Mining, and further strengthened by Law No. 11 of 2020 on Job Creation, there is significant room for investment and exploitation in the mining industry. However, the growth of the mining sector is often not balanced with environmental protection and the rights of local communities, especially in areas rich in resources but socially and ecologically vulnerable. This situation raises fundamental questions about the legal balance in the implementation of mining permits. To what extent can the law balance environmental conservation and resource exploitation? In many cases, the law often gets stuck in an economic paradigm and loses focus on the fundamental values of the nation contained in Pancasila, particularly the second principle (humanity), the fifth principle (social justice), and the principle of ecological justice.

The principle of precaution (the precautionary principle) and intergenerational responsibility in sustainable development are lost due to the bureaucracy's focus on issuing permits through the Online Single Submission (OSS) system and a dominant administrative approach. This indicates a discrepancy between formal legal rules and the fundamental principles of Pancasila, which serves as the ideology and foundation of all legal sources in Indonesia. Normatively, Law No. 3 of 2020 on Mineral and Coal Mining is committed to legal stability and sustainability. However, in reality, the mining permit system tends to cause overexploitation, environmental damage, and social conflicts, especially in vulnerable ecosystems. There is no legal framework that truly guarantees a balance between economic progress and environmental sustainability. Current regulations emphasize administration and investment but fail to incorporate principles of environmental precaution, intergenerational justice, and the involvement of indigenous or local communities affected by mining activities. Overlapping permits, environmental damage, and the marginalization of communities' ecological rights are the result of this imbalance.

Permits are regulatory or controlling norms for communities so that when they carry out certain activities, including mineral and coal mining, they must comply with applicable regulations. The aim is to ensure that they do not deviate from and comply with the established regulations. Permits give rise to rights and obligations and are therefore constitutive in nature. A person has the right to carry out certain activities and has certain obligations. The issue of mining permits issued by local governments is inseparable from the perspective of viewing nature as a commodity. In the name of development that pursues economic growth targets and for the sake of increasing state revenue and foreign exchange, the utilization of natural resources is carried out without considering the principles of justice, democracy, and the sustainable function of natural resources. The implications arising from practices of natural resource utilization that prioritize economic growth without considering ecological balance and the social and cultural values of local communities inevitably lead to significant

social and cultural implications.

The implications of mining operations in Indonesia are also widely debated by various groups, such as:

1. Damage to areas surrounding mines
2. Pollution of the sea
3. The spread of disease among communities living in mining areas
4. Conflicts between communities surrounding mines

Based on this, the mining permit regime for minerals and coal in Indonesia faces significant challenges in balancing the benefits of economic development with environmental protection. The protection of ecosystems and the rights of affected communities appear to be overlooked amid the government's push to increase investment and revenue through the mining sector. Due to this imbalance, the formulation and implementation of laws have not fully integrated sustainability principles in both normative and practical terms. Policies and legal regulations have failed to bridge economic and ecological benefits, which form the basis of this research. In reality, investment certainty is prioritized over sustainability guarantees. Overlapping permits, systemic environmental damage, and the absence of mechanisms for local community participation highlight this issue. This indicates that ecological justice has not been incorporated into the national mining legal framework. As the ideological and philosophical foundation of the state, Pancasila should be the primary reference in establishing fair and sustainable legal standards. However, the principles of Pancasila in the permitting regime are often merely symbolic and have not led to the systematic implementation of policies balancing economic growth and environmental protection. As a result, this study explores various ways to revitalize the principles of Pancasila in the legal framework for mineral and coal licensing with the aim of creating a more equitable, inclusive, and sustainable legal balance.

This study fills a gap in the legal literature, which has so far focused more on technocratic and sectoral approaches, by using a normative approach and other supporting legal materials as comparisons. The normative testing of relevant laws and the reinterpretation of the principles of legality, social justice, and sustainability based on Pancasila values are the main focus. Therefore, the main objective is to offer a normative reconstruction of the mineral and coal licensing regime in Indonesia to make it more sustainable, fair, and inclusive. This is important to ensure legal certainty and ensure that the law functions as a tool to protect the environment and future generations. In an effort to balance the economic and ecological aspects of Indonesian mining law, this is done by revising the principles of Pancasila in the context of environmental and natural resource law. This fills the theoretical and normative gaps in efforts to balance the economic and ecological aspects of Indonesian mining law. This is done by revising the principles of Pancasila in the context of environmental and natural resource law.

2. Research Method

This study uses a normative legal approach, focusing on the analysis of regulations and legal principles related to mineral and coal licensing. The aim is to find a normative basis based on the principles of Pancasila and to investigate the imbalance between economic interests and environmental sustainability. The legislative method is used to evaluate inconsistencies and incompatibilities between laws such as Law No. 3/2020 on Minerals and Coal and Law No. 11/2020 on Job Creation. This method is crucial for evaluating legal inconsistencies that impact environmental management. To study concepts such as “legal balance” and “sustainability,” as well as the position of Pancasila as a foundational norm integrating social and ecological justice aspects into licensing law, a conceptual approach is employed. In mining law, moral aspects and values are emphasized, along with the principle of intergenerational responsibility, with a philosophical approach complementing the analysis. Sources and Methods of Legal Material Analysis: 1945 Constitution, Mining Law, Job Creation Law, and other related regulations. Scientific literature, journals, and academic documents serve as secondary legal materials. Criteria for selecting legal materials depend on their relevance, timeliness, and direct connection to environmental sustainability principles. The analysis is conducted in a descriptive and evaluative manner. This involves interpreting current standards, identifying legal inconsistencies, and making arguments based on Pancasila values.

3. Results and Discussion

Regulations on Mineral and Coal Mining Business Licenses Based on Environmental Sustainability

Every country has goals for its people. For the Indonesian people, these goals are listed in the Preamble to the 1945 Constitution, in the fourth paragraph, namely: (1) to protect the entire nation and all of Indonesia; (2) to promote general welfare; (3) to educate the nation; and (4) to participate in establishing world order based on freedom, eternal peace, and social justice.

The guarantee of the fulfillment of the right to a good and healthy environment for everyone has been enshrined in Article 9 of Law Number 39 of 1999 concerning human rights, which states that:

- a. Everyone has the right to live, maintain their life, and improve their standard of living.
- b. Every person has the right to live in peace, safety, harmony, happiness, and prosperity, both physically and mentally.
- c. Every person has the right to a good and healthy environment.

The principle of balance is the implementation of the principles of good faith, honest transactions, and justice. Balance in law is based on the reality of great disparities in

society. Therefore, a regulatory system is needed to protect those who are in a disadvantaged position. The principle of balance is in line with the national objectives, namely (1) to protect the entire Indonesian nation, and (2) to promote general welfare based on Pancasila. According to Barda Nawawi Arief, there are two key words in the national objectives, namely “protection of society” and “welfare of society.” These two key words are synonymous with the terms known in literature/academia as “social defense” and “social welfare.” The presence of these two key words also reflects the principle of balance in the national development objectives.

A healthy environment is a necessity for all living beings. A healthy environment reflects the level of public concern in environmental management and the protection of environmental sustainability in efforts to create a healthy, harmonious, and prosperous life. Even in the 1945 Constitution of the Republic of Indonesia, Article 28H paragraph (1) states that: “Every person has the right to live in prosperity, both physically and spiritually, to have a place to live, and to obtain a good and healthy living environment, as well as the right to receive health services.” Based on this provision, it can be interpreted that the need for a healthy environment is a fundamental right of every person.

Generally, the environment is defined as all objects, conditions, states, and influences within the space we occupy, which affect living things, including human life. The boundaries of the environment, as defined here, can be very broad, but for practical purposes, its scope is limited to factors that can be influenced by humans, such as natural factors, political factors, economic factors, social factors, and others.

The “environment” refers to the physical or material environment, encompassing all physical and material elements and factors found in nature. The environment is a resource for human life, providing benefits and playing a crucial role in health, economy, and society. The environment is a resource whose existence is fundamentally necessary. Human life cannot exist without the environment. Human existence is highly dependent on the environment.

Environmental sustainability is the ability to maintain the quality assessed in the physical environment. Other literature defines environmental sustainability as related to decision-making and action-taking focused on protecting nature, with a particular emphasis on preserving the environment's ability to support human life. Sustainability requires that human activities only use natural resources at a rate at which they can be naturally replenished. The concept of sustainable development is related to the concept of carrying capacity. Therefore, in relation to environmental sustainability, programs are focused on activities to:

- prevent threats and increasing damage impacts
- protect the environment from threats and damage, and
- repair damage that has already occurred

The following is the latest data supporting the argument about illegal mining cases and the consequences of environmental degradation in Indonesia: Review of State and

Environmental Losses in Bangka: An AP investigation into five illegal tin mining companies revealed state losses of around Rp 29 trillion and environmental damage of Rp 271 trillion, or US\$17 billion. (reddit.com), (news.detik.com)(en.wikipedia.org). National losses According to Statista research, losses due to illegal mining increased from Rp 1.6 trillion in 2019 to Rp 3.5 trillion in 2022, (statista.com); Achievements in Burned and Damaged Land, Deforestation, and Ecosystem Damage: WALHI (2023) recorded approximately 240,000 hectares of mangroves and over 5,000 hectares of coral reefs degraded due to tin mining in Bangka-Belitung, and over 12,000 abandoned mining pits across 15,000 hectares of land. (en.wikipedia.org); Accidents and Social Impacts Illegal gold mine landslide: September 2024: West Sumatra: 12–15 people killed, dozens missing (apnews.com), July 2024: Bone Bolango in Gorontalo caused at least 27 deaths and 48 people missing (en.wikipedia.org). Economic Losses and Ecosystem Damage: The data above shows that illegal mining not only causes worker deaths and environmental damage but also results in financial losses for the state amounting to tens to hundreds of trillions of rupiah.

Real Threats to Health and Safety: Incidents involving chronic health risks from chemical toxins like mercury have claimed dozens of lives. Social Conflict and Economic Inequality: Land damage and conflicts reflect the imbalance between economic exploitation, community rights, and the environment. Policy Paradox: Despite the state's efforts to implement IPR/WPR, implementation and enforcement remain far from target, as evidenced by thousands of illegal sites and high accident rates. This strengthens the argument that the current mining licensing regime does not balance environmental rights, community rights, and the state's right to manage resources, even though it is regulated in accordance with the principles of Pancasila and the 1945 Constitution.

Normatively, the management and utilization of the environment and natural resources must take into account environmental balance and the sustainability of their functions and capabilities. The concept of legal balance, also known as “legal equilibrium,” emphasizes the importance of creating and enforcing laws to balance economic development interests and environmental protection. In natural resource law, legal balance encompasses not only the alignment between policies and standards but also the integration of state rights, social responsibility, and ecological sustainability (Bosselmann, 2010).

This is based on criticism of the sectoral legal approach, which views environmental law and economic law as separate from one another, despite their interconnectedness in the mining regulatory process (Atapattu, 2006). Legal justice depends on three main pillars: intergenerational justice, the precautionary principle, and substantive sustainability, not just procedural sustainability.

The utilization and management of the environment and its natural resources are not only intended for enjoyment in the present but must also consider the lives of future generations. Therefore, in the management and utilization of the environment and its

natural resources, it is only natural to take preventive and controlling actions against the negative impacts of development through the active participation of stakeholders in development, such as community members, investors, and the government. Based on the principle of autonomy, where regions have the authority to regulate and manage their own affairs, in carrying out the function of creating social welfare and improving the quality of life of the community, local governments have duties and responsibilities in implementing the mandate of the 1945 Constitution. Local governments play a very strategic role in preserving the environment and controlling the utilization of natural resources.

Application of the principle of balance in the regulation of mineral and coal mining permits Based on Pancasila

Indonesia's main mining sector regulation, Law No. 3 of 2020, increases the state's authority to exploit natural resources. However, it tends to focus on economic and investment aspects, with terms such as “business certainty” and “ease of licensing” taking precedence over the rights of local communities and environmental protection. Based on this reasoning, a benchmark has been established for the principle of balance in mining and coal business permits in relation to the values contained in the 1945 Constitution, particularly Law No. 3 of 2020, which is managed based on the principle of equitable balance; priority for national interests; participatory, transparent, and accountable; sustainable and environmentally conscious. The purpose of this Law is to improve the mineral and coal management system, with a particular emphasis on: Improving mining governance: Permitting, supervision, and environmental management are added.

National interests: Ensuring that mineral and coal management benefits the state and the nation. Environmental awareness: Emphasizing the importance of environmentally friendly and sustainable mineral and coal management. Legal certainty and investment ease: Providing legal certainty for businesses and creating a favorable investment climate.

Herlien Budiono points out that the principle of balance is, on one hand, limited by will, which is influenced by considerations or favorable circumstances. On the other hand, the principle of balance is limited by belief in the manifestation of desired results. Using Pancasila as a standard, Indonesia's mining licensing law reform must integrate economic benefits with environmental benefits. While the principle of humanity demands the protection of local community rights, the principle of social justice demands a fair distribution of mining profits. The theory of legal balance, which demands harmony between humans, law, and nature, aligns with this idea. The following principles can be used to apply this paradigm: Intergenerational justice, ensuring that resources are not depleted for short-term purposes. The right of

communities to a healthy environment has been incorporated into the permitting process and environmental impact assessment (EIA) evaluation. Meaningful participation in decision-making processes.

Permitting is a form of regulatory function and control exercised by the government over activities carried out by the community. It takes the form of registration, recommendations, certification, quota determination, and permits to conduct a business, which an organization or individual must usually possess or obtain before carrying out an activity or action. There are two ways to concretize the principles contained in Pancasila into law:

making the Mining Law and its implementing regulations based on the principles of social and ecological justice. Formulating implementing regulations that prioritize participation, independence, and community rights. Compelling institutions responsible for mining supervision, such as the Mining Inspectorate, DLH, etc., to apply an ethical approach based on the principles of Pancasila.

Balance between legal certainty and justice, balance between economic growth and law enforcement, balance between economic value and social value, balance between formal legality and material legality. Permitting is part of the legal relationship between the government and society in maintaining the balance of interests between society and its environment and efforts to achieve legal certainty for members of society who have an interest. The concept of legal balance, also known as “legal equilibrium,” is a theory that emphasizes the importance of lawmaking and law enforcement in balancing the interests of economic development and environmental protection.

In natural resource law, legal balance encompasses not only the alignment of policies and standards but also the integration of state rights, social responsibility, and ecological sustainability (Bosselmann, 2010). This is based on criticism of the sectoral legal approach, which views environmental law and economic law as separate from one another, despite their interconnectedness in the mining regulatory process (Atapattu, 2006). Legal justice depends on three main pillars: intergenerational justice, the precautionary principle, and substantive sustainability, not just procedural sustainability. A reconstruction of licensing standards is urgently needed, shifting from administrative legality to legal balance, including changing licensing criteria based on substantive assessments of ecological viability rather than mere administrative completeness. In the reconstruction of mining law, ecological justice theory must also be used as a normative basis to prevent overexploitation. Strengthening the legal sanction system for environmental violations to be restorative rather than repressive requires environmental ethical audits and community

involvement at every stage of licensing and post-mining to uphold “community ecological rights” as a constitutional right to natural resource permits.

4. Conclusion

The principle of legal balance must be incorporated into the constitution as a tool to protect against the economic exploitation of natural resources. This affirms that the principle of balance is not only ethical and philosophical in nature, but must also be incorporated into the legislative and licensing processes as a mandatory legal standard. Pancasila functions not only as the foundation of the state but also as a source of legal ethics that demands the integration of ecological, social, and intergenerational justice within the framework of national development. As a consequence of policy, regulatory reform is needed to strengthen the position of environmental law in the licensing process. This includes strengthening substantive EIA requirements, disseminating community-based monitoring, and ensuring that sectoral regulations do not overlap or contradict each other. A mineral and coal licensing regime that consistently upholds the principle of balance will provide a legal foundation for fair, sustainable, and Pancasila-compliant natural resource management. Sectoral laws such as Law No. 3 of 2020 on Mineral and Coal Mining must be revised to enhance environmental protection, particularly in the process of granting and assessing permits. Second, the obligation to conduct an environmental impact assessment (EIA) must be significantly enhanced, not just administratively, by including the involvement of affected communities as a legal-formal requirement for licensing. Third, supervisory authority must be distributed more proportionally between the central and regional governments. This must be done by considering the principles of ecological justice and local institutional capacity. Fourth, to avoid policy overlap and normative conflicts, environmental, forestry, spatial planning, and energy permitting systems must be integrated into a harmonized legal framework. Fifth, administrative courts and the Constitutional Court must be strengthened as normative corrective institutions for licensing practices that deviate from the principle of sustainability. Therefore, the reform of mineral and coal licensing law is an effort to change the basic principles of national law so that economic growth does not sacrifice environmental rights and the sustainability of future generations.

References

- Adrian Sutedi, *Hukum Perizinan Dalam Sektor Pelayanan Publik*, Jakarta, Sinar Grafika, 2010
- Amrah Muslimin, *Beberapa Asas dan Pengertian Pokok Tentang Administrasi dan Hukum Administrasi*, Bandung; Alumni, 1985
- Bachrul amiq, *Hukum Lingkungan; Sanksi Administrasi Dalam Penegakan Hukum Lingkungan*, Yogyakarta, Laksbang Grafika, 2016
- Bi, J., Li, D., & Zhang, N. (2022). Equilibrium Reinsurance-Investment Strategy With A Common Shock Under Two Kinds Of Premium Principles. *Rairo - Operations Research*, 56(1). <https://doi.org/10.1051/ro/2021183>
- Cajete, G. A. (2020). *Indigenous Science, Climate Change, And Indigenous Community Building: A*

- Framework Of Foundational Perspectives For Indigenous Community Resilience And Revitalization. *Sustainability (Switzerland)*, 12(22). <https://doi.org/10.3390/Su12229569>
- Fauzi, A. (2017). Motivasi Indonesia Menghentikan Ekspor Mineral Mentah Jenis Bauksit Ke Tiongkok Pasca Pemberlakuan Undang-Undang Minerba No.4 Tahun 2009. *Diponegoro Journal Of Accounting*, 2(1).
- Fenty U Puluhulawa, *Pertambangan Mineral dan Batubara Dalam Perspektif Hukum*, Yogyakarta, Interpena, 2013
- Halomoan, K. P. (2021). Tantangan Pengaturan Perlindungan Dan Pengelolaan Lingkungan Hidup Pasca Undang-Undang No. 11 Tahun 2020 Dan Pasca Pandemi Covid 2019. *Bina Hukum Lingkungan*, 5(3).
- Handayani, I. G. A. K. R., Sulistiyono, A., Leonard, T., Gunardi, A., & Najicha, F. U. (2018). Environmental Management Strategy In Mining Activities In Forest Area Accordance With The Based Justice In Indonesia. *Journal Of Legal, Ethical And Regulatory Issues*, 21(2).
- Hasibuan, H. (2019). Principle Of Balancing Regulation Of Mineral Mining Business Licenses For Sustainability Of Environment. *Untag Law Review*, 3(2). <https://doi.org/10.36356/Ulrev.V3i2.1334>
- I Nyoman Nurjaya, *Pengelolaan Sumber daya Alam dalam Perspektif Antropologi Hukum*, Malang, Universitas Negeri Malang, 2006
- J Kaloh, *Mencari Bentuk Otonomi daerah, Suatu Solusi Dalam Menjawab Kebutuhan Lokal dan Tantangan Global*, Jakarta, Rineka Cipta, 2002
- Jemarut, W., Solikatur, S., & Rizal, P. (2022). Kajian Yuridis Masyarakat Hukum Adat. *Widya Yuridika*, 5(1). <https://doi.org/10.31328/Wy.V5i1.2494>
- Kazapoe, R. W., Amuah, E. E. Y., Abdiwali, S. A., Dankwa, P., Nang, D. B., Kazapoe, J. P., & Kpiebaya, P. (2023). Relationship Between Small-Scale Gold Mining Activities And Water Use In Ghana: A Review Of Policy Documents Aimed At Protecting Water Bodies In Mining Communities. In *Environmental Challenges* (Vol. 12). <https://doi.org/10.1016/J.Envc.2023.100727>
- Kopnina, H., & Bedford, T. (2024). From Pseudo To Genuine Sustainability Education: Ecopedagogy And Degrowth In Business Studies Courses. *Australian Journal Of Environmental Education*. <https://doi.org/10.1017/Aee.2023.39>
- Leonhardt, R., Noble, B., Poelzer, G., Belcher, K., & Fitzpatrick, P. (2023). Government Instruments For Community Renewable Energy In Northern And Indigenous Communities. *Energy Policy*, 177. <https://doi.org/10.1016/J.Enpol.2023.113560>
- Luo, X., Qiao, Y., & Sun, Y. (2022). A Revelation Principle For Correlated Equilibrium Under Trembling-Hand Perfection. *Journal Of Economic Theory*, 200. <https://doi.org/10.1016/J.Jet.2021.105396>
- Luthfita, W., & Yanit, S. R. (2023). Digitalizing A Local Language Dictionary: Challenges And Opportunities. *Lexicography*, 10(1). <https://doi.org/10.1558/Lexi.25076>
- Negara, T. A. S. (2023). Normative Legal Research In Indonesia: Its Originis And Approaches. *Audito Comparative Law Journal (Aclj)*, 4(1). <https://doi.org/10.22219/Aclj.V4i1.24855>
- Novaryan, O. Y., Setyaningsih, Y., & Suroto, S. (2021). Intervensi Pemaparan Modul Resiko Utama Tambang Bawah Tanah Terhadap Peningkatan Pengetahuan, Sikap, Dan Praktik Kontrol Kritis Resiko Fatal Pada Petugas Safety Lapangan. *Jst (Jurnal Sains Terapan)*, 7(1). <https://doi.org/10.32487/Jst.V7i1.1160>
- Nugroho, W. (2020). Persoalan Hukum Penyelesaian Hak Atas Tanah Dan Lingkungan Berdasarkan Perubahan Undang-Undang Minerba. *Jurnal Hukum Ius Quia Iustum*, 27(3). <https://doi.org/10.20885/Iustum.Vol27.Iss3.Art7>
- Nurmayani, N., Deviani, E., Mahdewi, R., & Banjarani, D. R. (2021). The Application Of The Sustainable Development Concept In Indonesia's Environmental Law. *Musamus Law Review*, 4(1). <https://doi.org/10.35724/Mularev.V4i1.3949>
- Pociovălișteanu, D. M., Novo-Corti, I., Aceleanu, M. I., Șerban, A. C., & Grecu, E. (2015). Employment

- Policies For A Green Economy At The European Union Level. *Sustainability (Switzerland)*, 7(7). <https://doi.org/10.3390/Su7079231>
- Retnaningsih, S., Soroinda Nasution, D. L., Oktaviani, H., & Alfarizi Ramadhan, M. R. (2021). Expansion Of The Objects Of State Administrative Disputes After The Enactment Of Law Number 30 Of 2014 Concerning Government Administration And Supreme Court Regulation Number 2 Of 2019 Concerning Guidelines For The Resolution And Authority To Adjudicate Unlawful Conducts By Government Agencies Or Officials (Onrechtmatige Overheidsdaad / Ood). *International Journal Of Multicultural And Multireligious Understanding*, 8(1). <https://doi.org/10.18415/Ijmmu.V8i1.2382>
- Saigal, B. S., Jit, B., & Mann, S. (2010). The Mediating Role Of Demographics And Time Pressure In Information Search Process : A Comparative Analysis Of English And Indian Consumers. *The Iup Journal Of Marketing Management*, 9(1).
- Thamrin, H., Aji Titin Roswitha Nursanthi, Ribeiro, L., & Afriani, L. (2023). Government Consistency In Enforcement Of Regulations Regarding Mineral And Coal Mining Related To Mine Reclamation. *Awang Long Law Review*, 5(2). <https://doi.org/10.56301/Awl.V5i2.764>
- Tobias, E. (2022). Commencing Deep Seabed Mining: A Review On Law No. 3 Of 2020 On Mineral And Coal Mining. *Brawijaya Law Journal*, 9(1). <https://doi.org/10.21776/Ub.Blj.2022.009.01.05>
- Tri Hayati, Era Baru Hukum Pertambangan Di Bawah Rezim UU No. 4 tahun 2009, Jakarta, Pustaka Obor Indonesia, 2015
- Umam, A. K. (2018). Kuasa Oligarki Atas Minerba Indonesia? Analisis Pasca Pengesahan Uu Nomor 3 Tahun 2020 Tentang Pertambangan Minerba. *Analytical Biochemistry*, 11(1).
- Vegera, S., Malei, A., Romanova, O., & Sushko, V. (2018). Environmental Innovation As A Part Of Mineral Resources Accounting And Financial Reporting Development For Natural Capital Involvement In Management Decision-Making Process. *Marketing And Management Of Innovations*, 4. <https://doi.org/10.21272/Mmi.2018.4-22>
- Yanuarsyah, I., & Suwarno, Y. (2017). Integrasi Data Inderaja Dan Data Geologi Untuk Mendukung Eksplorasi Tambang Emas, Studi Kasus Di Kabupaten Paniai Provinsi Papua. *Majalah Ilmiah Globe*, 19(1). <https://doi.org/10.24895/Mig.2017.19-1.559>.
- Yuliandri, Asas-Asas Pembentukan Peraturan Perundang-Undangan yang baik Gagasan Pembentukan Undang-Undang Berkelanjutan, Jakarta, RajaGrafindo Persada, 2013

- Temanggung Provinsi Jawa Tengah. Diponegoro Law Journal. Vol.6, No.2. p.2.
<https://ejournal3.undip.ac.id/index.php/dlr/article/view/19575>
- Indra Rahmatullah. Desember 2014. Perlindungan Indikasi Geografis dalam Hak Kekayaan Intelektual Melalui Ratifikasi Perjanjian Lisabon. Jurnal Cita Hukum. Vol. II No.2. ISSN : 2356-1440. Fakultas Syariah dan Hukum UIN Syarif Hidayatullah Jakarta.
- Siti Asfiah. Oktober 2015. Perlindungan Hukum Potensi Indikasi Geografis Di Kabupaten Brebes Guna Pengembangan Ekonomi Masyarakat Lokal. Jurnal Idea Hukum, Vol.1 No.2. Magister Hukum Fakultas Hukum Universitas Jenderal Soedirman.
- Tatty Ramli dan Yetti Sumiati. 2008. Impplikasi Pendaftaran Indikasi Geografis Terhadap Potensi Peningkatan Pertumbuhan Ekonomi Masyarakat. Jurnal Hukum Bisnis. Bo.27 No.4.
- Winda Risna Yessiningrum. 2015. Perlindungan Hukum Indikasi Geografis Sebagai Bagian Dari Hak Kekayaan Intelektual. Jurnal Kajian Hukum dan Keadilan IUS, Vol. III, No.7. p.45
- Yuni Zanesty Hutapea. 2020. Analysis of Factors Affecting Demand For Gayo Robusta Coffee (Coffee Camephora). Universitas Medan Area.
<http://repository.uma.ac.id/handle/123456789/12125>
- 1945 Constitution of the Republic of Indonesia
- Law Number 19 of 2013 concerning Protection and Empowerment of Farmers
- Law of the Republic of Indonesia Number 20 of 2016 concerning Marks and Geographical Indications
- Government Regulation No. 51 of 2007 concerning Geographical Indications
<http://www.aekiaice.org/>
<https://www.talkaboutcoffee.com/coffee-beans.html> Coffe Beans – The Many Varieties of The Coffe Plant.
<https://ig.dgip.go.id/detail-ig/26#batas-wilayah>