

ORIGINAL ARTICLE

Analysis of local government supervision in surface mining: The case of Bulukumba Regency

Aldiani Fitriayu Sam¹, Indar Arifin², and Suhardiman Syamsu³

Affiliation

¹ Undergraduate Student of Department of Government Science, Hasanuddin University, Makassar, Indonesia, 90245

^{2,3} Department of Government Science, Hasanuddin University, Makassar, Indonesia, 90245

Correspondence

aldianifitriani22@gmail.com

Funding Information

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Abstract

Supervision is the prevention or correction of errors, irregularities, discrepancies, and misappropriations that are not in accordance with the objectives of the predetermined authority. This study aims to determine how the form of local government supervision in supervising rock quarry mines in Bontotiro District, Bukukumba Regency. This study used a qualitative descriptive approach, and the data collection used observation, interviews, and documentation. Data was analyzed through the stages of data collection, data reduction, data presentation, and conclusions. This study shows how local government supervision of rock quarry mines in the study area is seen from two forms of supervision. First, preventive supervision was carried out before the implementation of mining activities through the supervision of exploration Mining Business Permits (IUP) for exploration implementation and Mining Business Permits (IUP) for production operations. Second, repressive supervision carried out during the implementation of mining activities refers to the supervision of Rock Excavation Production Operation Activities.

Keywords

Government supervision, local government, surface mining, rock quarry, Indonesia

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2024 SAM, ARIFIN, AND SYAMSU, *Journal of Government and Development* published by Department of Government Science, Faculty of Social and Political Sciences, Hasanuddin University

1 | INTRODUCTION

Indonesia is a country blessed with abundant natural resources; this can be seen from the potential of natural resources spread throughout Indonesia. Article 33 Paragraph 3 of the 1945 Constitution of the Republic of Indonesia states that "*Earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people.*" So, the State is given the highest power to regulate, manage, and use the State's wealth as best as possible to realize the prosperity of its people.

Indonesia has mineral and coal resources. If managed well, these resources will contribute to the welfare of the people and vice versa. So far, Indonesia's economy has developed with the support of its natural resources, including mineral and coal mining.

According to Law No. 3 of 2020 concerning Amendments to the 2009 Law concerning Mineral and Coal Mining (Revision of the Minerba Law) in Article 1 Paragraph 1, it is explained that "Mining is part or all of the stages of activities in the framework, management and exploitation of minerals or coal which includes general investigations, exploration, feasibility studies, construction, mining, processing and/or refining or development and/or utilization, transportation and sales, as well as post-mining activities."

Bulukumba Regency is an area with many mining activities, especially rock excavations. Bulukumba Regency Regional Regulation Number 21 of 2012 concerning Bulukumba Regency Regional Spatial Planning for 2012 – 2032 article 42 No. 2 part C regulates the mining business area for rock commodities such as limestone, natural sandy gravel (*sirtu*), gravel, clay, and tray. One of the areas in question is designated in the Bontotiro District area.

The results of initial observations of the community showed that there were 4 villages where mining activities were currently operating, namely Lamanda Village, Buhung Bundang Village, Batang Village, and Bontotangga Village. However, in its implementation, there are still things that do not comply with applicable regulations, such as in the implementation of permits and the implementation of production operations, so the author is interested in knowing what form of government supervision takes place in supervising rock excavation mines.

The government, in carrying out development tasks and providing services to the community, must really pay attention to cooperative relationships in the administration of government itself. Cooperation in government administration here means that in carrying out development tasks and providing services to the community, all government officials must truly understand the capacity of their respective authorities and duties. Apart from providing sufficient space for the interests of the people, the government is also tasked with fulfilling the interests of the people through development, development, and community empowerment.

Regional governments, as State administrators at the regional level, remain involved in mining management. Government Regulation (PP) Number 96 of 2021 concerning the Implementation of Mineral and Coal Mining Business Activities has been explained regarding business permits in the mineral and coal mining sector in Article 6, Paragraphs 1 and 2, namely that Mining Businesses are carried out based on Business Licensing from the central government. Business Licensing is implemented through the granting of a business registration number, standard certificate, and/or permission.

Business licensing in the form of granting standard certificates and permits, as referred to in parts b and c, can be delegated to provincial regional governments based on the principles of effectiveness, efficiency, accountability, and externalities.

Presidential Regulation number 55 of 2022 concerning Delegation of Granting Business Licensing in the Mineral and Coal Mining Sector in Article 2, paragraph 1 explains the scope of delegated authority. Delegation

includes (1) awarding a standard certificate and permission, (2) guidance on the implementation of delegated Business Licensing, and (3) supervision over the implementation of delegated Business Licensing.

The implementation of mining business activities is regulated in Government Regulation (PP) Number 96 of 2021 concerning the Implementation of Mineral and Coal Mining Business Activities. Even though mining business activities have been regulated, in this case, there are still several problems, obstacles, and violations that often occur. Therefore, government supervision is needed in mining activities so that they run in accordance with applicable regulations and avoid undesirable impacts. Subsequent paragraphs, however, are indented.

2 | METHODS

The author's research method is descriptive research with a qualitative approach. Qualitative descriptive research aims to describe, depict, explain, and answer in more detail the problems to be studied by studying an individual, a group, or an event as closely as possible.

This research was carried out at the Energy and Mineral Resources Department of South Sulawesi Province and in Bontotiro District, Bulukumba Regency, focusing on Lamanda Village, Buhung Bundang Village, Batang Village and Bontotangga Village. The primary and secondary data used in this research were obtained using observation, interview, and documentation data collection techniques. The data analysis technique in this research was carried out carefully, and the data was selected using descriptive data analysis techniques, namely data that had been collected both primary and secondary. Then, conclusions were drawn as answers to the problem being studied. Data processing is carried out through data collection, data reduction, data presentation, and conclusion.

3 | RESULTS AND DISCUSSION

3.1 | Regional Government Authorities in the Mining Sector

The 2020 Law concerning Amendments to the 2009 Law concerning Mineral and Coal Mining (Revision of the Minerba Law) in Article 35 Paragraph 1 states that "*mining businesses are carried out based on permits from the central government.*" then in paragraph 4 it is explained that the Central Government can delegate the authority to grant Business Licensing in the form of granting a business registration number; standard certificate; and/or permission. to the provincial Regional Government in accordance with the provisions of statutory regulations.

In the Republic of Indonesia, government regulation no. 96 of 2021 concerning the implementation of mineral and coal mining business activities has regulated the authority of the central government and provincial regional governments in the mining sector. In Article 6, Paragraph 5, it is explained that the granting of business permits in the form of standard certificates and permits can be delegated to provincial regional governments based on the principles of effectiveness, efficiency, accountability, and externalities.

The delegation of the granting of mineral and coal mining business permits is then explained in the Presidential Regulation of the Republic of Indonesia No. 55 of 2022 concerning the delegation of the granting of business permits in the mineral and coal mining sector. The main points of Presidential Regulation No. 55 of 2022 concerning the delegation of business licensing in the mineral and coal mining sector. First, delegated authority, refers to (1) providing Standard Certificates and Permits and (2) Guidance and Supervision of the implementation of delegated Business Licensing. Second, granting permits consists of (1) IUP within the framework of PMDN for commodities: non-metallic minerals, certain types of non-metallic minerals and rocks, (2) SIPB and IPR, (3) Transport and Sales Permit for commodities: non-metallic minerals, certain types of non-metallic minerals and rocks, (4) IUJP for 1 (one) provincial area, (5) IUP for sale of commodities: non-metallic minerals, certain types of non-metallic minerals and rocks. Third, apart from the authority to grant business permits, the Central Government also delegates several other authorities, including (1) granting and determining WIUP for non-metallic minerals, certain types of non-metallic minerals and rocks, (2) determining benchmark prices for non-metallic minerals, certain types of non-metallic minerals and rocks, (3) providing recommendations or approval

related to delegated authority, Fourth, guidance and supervision, the Governor assigns Mining Inspectors and Supervisory Officials. Fifth, the Provincial Government is obliged to provide permits effectively and efficiently in accordance with the NSPK made by the Central Government and prepare the necessary regional apparatus. Sixth, the Provincial Government is obliged to submit a report on the implementation of the Delegation of Granting Business Licensing to the Minister of Energy and Mineral Resources and the Minister of Home Affairs. Seventh, funding for the implementation of (1) granting delegated business licensing and (2) guidance and supervision of the implementation of delegated business licensing is sourced from the provincial regional revenue and expenditure budget. Eight, operational costs for the implementation of supervision carried out by Mining Inspectors and Supervisory Officials are sourced from the budget of the Ministry of Energy and Mineral Resources. Ninth, delegation of authority is effective on April 11, 2022. The Central Government will immediately coordinate with the Provincial Government and related Government Agencies in the context of implementing Presidential Decree Number 55/2022.

Presidential Regulation No. 55 of 2022, Article 2 Paragraph 1 explains that Delegation includes awarding, standard certificate, and permission; guidance on the implementation of delegated Business Licensing; and supervision over the implementation of delegated Business Licensing.

Article 2 Paragraph 11 explains that "*delegation as intended in paragraph (1) cannot be sub-delegated to district/city regional governments.*" Provincial regional governments are given the authority to provide standard certificates and permits and then develop and supervise mineral and coal mining businesses. In mining supervision, the Governor assigns mining inspectors to supervise good mining engineering principles and mining supervisory officials to supervise mining business governance.

The Central Government also delegates some authority to support the management of mineral and coal mining, which includes granting and determining non-metallic mineral mining business permit areas, certain types of non-metallic mineral mining business permit areas, and rock mining business permit areas with the following provisions are in 1 (one) provincial area or sea area up to 12 (twelve) nautical miles. Determining benchmark prices for non-metallic minerals, determining benchmark prices for certain types of non-metallic minerals, determining benchmark prices for rocks, and providing recommendations or approvals related to delegated authority.

Article 4 explains that the Provincial Government, in implementing delegation, is obliged to (1) carry out the granting of delegated Business Licensing effectively and efficiently in accordance with the norms, standards, procedures, and criteria established by the Central Government and (2) prepare regional apparatus needed for the implementation of the granting of business permits in the mineral and coal mining sector.

3.2 | Rock Quarry in Bontotiro District

Bulukumba Regency is an area where there are many mining activities, especially rock excavations, one of which is in Bontotiro District. Data on the number of mining business permits (IUP) for rock minerals in Bontotiro District, Bulukumba Regency, in 2023 obtained from the Department of Energy and Mineral Resources, three rock quarry mines already have production operation permits. They are currently carrying out production operations activities and three rock quarry mines that have the following exploration permits:

Table 1. Number of Mining Business Permits (IUP) for Rock Quarrying in the Bontotiro District Area in 2023.

No.	Villages	Business Category	Cooperate	Activity Stages	Commodity Names
1	Buhung Bundang	CV ¹	CV. Astricky Jaya	Operation Production	Batuan / Tanah Urug

¹ CV refers to Limited Partnership

2	Lamanda	Individual	Ir. Nurdin Radja	Operation Production	Batuan / Batu Gunung
3	Bonto Tangnga	Individual	Islamuddin Sulaiman	Operation Production	Batuan / Tanah Urug
4	Bonto Tangnga	CV	CV. Bonto Mate'ne	Exploration	Batu Gunung Quarry Besar
5	Caramming	CV	CV. Afkam	Exploration	Tanah Urug
6	Bonto Baua	PT	PT. Ara Bontobiraeng Nusantara	Exploration	Pasir Urug

Source: Dinas ESDM wilayah VI Bulukumba Regency, 2023, processed by Authors.

The results of the supervision of the integrated team controlling mining business permits and unlicensed mining (PETI), there are two unlicensed mines (PETI) in Bontotiro District are as follows:

Table 2. Number of Unlicensed Rock Excavated Mining (PETI) in Bontotiro District in 2023.

No.	Name	Location	Commodity/type	Tools
1	H. Ruslan	Batang	Pasir Urug (Batu Gamping)	Excavator
2	Aman	Batang	Batu Gamping	Excavator

Source: Primary data

3.3 | Rock Quarrying in the Bontotiro District

Supervision prevents or corrects errors, irregularities, non-conformities, and misappropriations that are not in accordance with the objectives of the authority that has been determined. It is considered a form of inspection or control from those above them to those below them. The terms supervision, control, and control are generally interpreted the same way, namely supervision.

Regional government supervision in supervising rock excavation mines in Bontotiro district, Bulukumba regency, according to research using an observational approach and interview results, can be seen through two forms of supervision: preventive supervision and repressive supervision.

Preventive supervision is supervision carried out before implementation. Namely, supervision carried out on something that is planned. This supervision includes monitoring mining business permits (IUP) for exploration and implementation of exploration and mining business permits (IUP) for production operations. Meanwhile, repressive supervision is supervision carried out after implementation to ensure the continuity of work implementation so that the results are in accordance with the predetermined plan. This supervision includes supervision of production operations, namely supervision of the implementation of mining business permits (IUP) for production operations and supervision of mining without permits. Thus, these two forms of supervision will be analyzed in detail.

3.3.1 Preventive Supervision

The mining business permit (IUP) for rock minerals is granted after submitting a regional application. Regional application means that every business entity, cooperative, or individual who wishes to have an IUP must apply to a mining business permit area. After the Mining Business Permit Area (WIUP) is received, accompanied by the submission of a WIUP map, WIUP boundaries, and coordinates, the business actor can apply for a Mining Business Permit (IUP).

Exploration mining business permit (IUP) and implementation of the exploration phase

Exploration Mining Business Permit, hereinafter referred to as Exploration IUP, is a business permit granted to carry out the stages of General Investigation, Exploration, and Feasibility Study activities. Exploration IUPs are granted based on applications from business entities, cooperatives, and individuals who have obtained a WIUP and meet the requirements.

Government Regulation no. 96 of 2021 concerning Mineral and Coal Mining Business Activities in Article 1 Paragraph 18 explains that exploration is a stage of Mining Business activities to obtain detailed and thorough information about the location, shape, dimensions, distribution, quality, and measurable resources of excavated materials, as well as information regarding the social and environmental environment. To obtain an exploration permit, if you already have a Mining Business Permit Area, rock mining business actors can apply for a permit at the Energy and Mineral Resources Service through a mining permit application by completing the required documents.

The aim of conducting rock mining exploration is to determine the mineral deposit resources in detail, namely to know, discover, identify, and determine the geological description based on the size, shape, distribution, quantity, and quality of a mineral deposit so that it can then be developed economically. Apart from that, exploration activities must also meet the basic principles and design: (1) effective (the use of tools, individuals, and methods must be appropriate to the geological conditions of the deposit being sought) and (2) efficient, namely by using basic economic principles, namely using the lowest possible costs to obtain the maximum results.

Mining business permit (IUP) for production operations

Production Operation Mining Business Permits, hereinafter referred to as Production Operation IUPs, are granted to business entities, cooperatives, and individuals to enhance exploration activities that meet the requirements. Exploration IUP holders are guaranteed to obtain a Production Operation IUP by submitting an application and fulfilling the requirements for increasing production operations.

Government Regulation No. 96 of 2021 concerning Mineral and Coal Mining Business Activities in Article 1 Paragraph 20 explains that production Operations are stages of Mining Business activities, which include construction, mining, processing and/or refining or development and/or utilization, including transportation and sales, as well as means of controlling environmental impacts in accordance with the results of feasibility studies.

The purpose of the production operations IUP is to enable mining business owners to carry out production operations activities in rock excavation mines, which include construction, mining, processing and/or refining or development and/or utilization, including transportation and sales, as well as means of controlling environmental impacts in accordance with the study's results. appropriateness.

Implementation of licensing governance for mining business activities has undergone a transformation towards the era of digitalization. This transformation is an effort to streamline the licensing process, take advantage of technological advances, and indicate that mining governance is currently very advanced.

Minerba business and operational licensing applications can be accessed via <https://perizinan.esdm.go.id/minerba/> without any fees being charged. The steps in the online licensing process are as follows: (1) Account Creation, create a company account using the company's official email address, (2) fill in company data and complete company profile data, (3) choose a licensing service, (4) complete the requirements of the selected licensing service and upload the required files according to the type of licensing chosen, (5) verification and approval process. The process of obtaining permits online through the mineral and coal business and operational licensing application still contains obstacles, which are a problem for mining business owners who wish to apply for permits.

The results of observations and interviews related to Production Operation Permits (IUP) show that the transformation of mining business activity licensing governance towards the era of digitalization through mineral and coal business and operational licensing applications is used to make it easier for mining business actors to process mining business permits (IUP). However, in implementing this licensing, there are still several obstacles felt by mining business permit actors who want to process their business permits. However, the government is still trying to guide so that every mine has a business permit and does not carry out illegal mining activities.

In making exploration permits, implementing exploration, and making production operation permits, it can be concluded that the implementation can be said to have been effective because mining business actors have done so in accordance with applicable regulations and are currently undergoing a transformation toward the digitalization era carried out by the government as an effort to make the licensing process more effective. However, in practice, there are still business actors who do not understand the licensing process using applications because there is no direct socialization regarding the mining permit processing process.

3.3.2 Repressive Supervision

Government Regulation Number 96 of 2021 concerning the Implementation of Mineral and Coal Mining Business Activities in Article 1 Paragraph 20 explains that production Operations are stages of Mining Business activities which include construction, mining, processing and/or refining, or development and/or utilization, including transportation and sales, as well as means of controlling environmental impacts in accordance with the results of feasibility studies.

Government supervision over the implementation of permits for mining business activities or technical production operations in the field falls under the authority of the mine inspector. Ministerial Regulation of the Republic of Indonesia Number 26 of 2018 concerning the Implementation of Good Mining Rules and Supervision of Mineral and Coal Mining in Article 1 Paragraph 16 explains that mining Inspectors are state civil servants who are given the task, responsibility, and authority to supervise the implementation of technical rules good mining and processing and/or refining engineering principles. In its implementation, mining inspectors also collaborate with the Provincial Energy and Mineral Resources Service to supervise the implementation of mining business activity permits.

The implementation of supervision over rock excavation mines that do not have permits has been formed by an integrated team controlling mining business permits and unlicensed mining (PETI) by the South Sulawesi regional government, which was established through Governor's Decree NO: 2449/XII/TAHUN 2022. This integrated team aims to control mining business permit (IUP) holders who work without permits and who do not comply with the rules and law enforcement for mining actors. In controlling mining business permit holders, there is also an element of guidance for mining business actors and data collection on rock excavation mines. The implementation of guidance is carried out if violations are found in the implementation of mining activities or for business actors who carry out mining without a permit.

Data on the number of mining business permits (IUP) for Bontotiro District, Bulukumba Regency, in 2023. Mining business activities that are currently operating and have Mining Business Permits are located in three villages, each of which has one mining business activity, namely Ir. Nurdin Radja (individual) is located in Lamanda village, CV. Astricky Jaya is located in Buhung Bundang village, and Islamuddin Sulaiman (individual) is located in Bontotangga village.

The schedule for monitoring rock excavation mines is carried out if a letter of assignment has been issued from the center or province or if there are reports received regarding violations that have occurred. In the implementation of mining business permit activities, there are still violations committed by rock excavation mining business owners that are not in accordance with good mining techniques. During the implementation of Mining Business Permits (IUP) Production Operations at rock excavation mines, violations were found by mining business actors, and this also caused concern among local residents: (1) there is too much dust around the mining area as well as along the road where trucks carrying materials pass, (2) drivers do not cover their material loads with tarpaulins so that it can endanger road users if the cargo falls, (3) mining business actors carry out production operations outside the mining business permit (WIUP) area, (4) there are rock excavation mines that only have exploration permits and carry out production operation activities but do not yet have production operation permits and this is considered an illegal mine.

In monitoring unlicensed mining (PETI) from data from the Department of Energy and Mineral Resources regarding the number of unlicensed mining (PETI) in the Bontotiro district, there are two unlicensed mines, namely H. Ruslan's mine in the form of backfill sand and Aman's mine in the form of limestone. Both are located in Batang village, Bontotiro district and use heavy equipment in the form of excavators. However, from the results of researchers' observations and interviews with village heads and local residents, it is clear that there are no illegal mines in Batang village; only the former Astricky Jaya mining area in Batang village is undergoing the land rehabilitation stage. The results of observations and interviews with residents and village officials do not match the data provided by the Energy and Mineral Resources Service, and the location should be made clearer from the data provided by the ESDM Service regarding Unlicensed Mining (PETI).

As a result of the repressive supervision carried out by the government, there are still rock quarry mines whose implementation processes are not in accordance with good mining techniques, and several violations have been found committed by mining business actors. Apart from that, during the supervision of unlicensed mining in the Bontotiro district, there were no rock quarry mines who operate illegally. Then, the government's guidance on the implementation of mining business permits is still less effective because there is no outreach to provide guidance on the implementation of mining business permits, and guidance is only carried out if someone is found to be violating the rules or operating illegally.

4 | CONCLUSION

The results of research regarding the analysis of regional government supervision in supervising rock excavation mines in Bontotiro district, Bulukumba regency, can be broadly seen from two forms of government supervision. Preventive Supervision refers to supervision carried out before implementation and consists of two stages of a mining business permit (IUP): an exploration business permit and a production operation business permit. The results of interviews and observations of researchers in the field, as well as data provided by the local government, can be concluded that the implementation of mining business permits (IUP) has transformed the era of digitalization, which is the government's effort to make the licensing process more effective. In making exploration permits, implementing exploration, and making production operation permits, it can be concluded that the implementation can be said to have been effective because mining business actors have done so in accordance with applicable regulations and are currently transforming the digitalization era carried out by the government as an effort to make the licensing process more effective. However, in practice, there are still business actors who do not understand the licensing process using applications because there is no direct socialization regarding the mining permit processing process.

Repressive Supervision is supervision carried out after implementation. The supervision referred to here is the supervision of the implementation of mining business activity permits, namely the production operation stage of rock excavation mines. This supervision is divided between government supervision of the implementation of permits for mining business activities and supervision of unlicensed rock excavation mines. From the results of interviews and observations of researchers in the field, as well as data provided by the local government, it can be concluded that firstly, in monitoring the implementation of rock mining business permits carried out by the government, there are still rock excavation mines whose implementation processes are not in accordance with good mining techniques and several are still found. violations committed by mining business actors. Second, in monitoring mining without a permit in the Bontotiro district, no rock excavation mines were operating illegally. Then, the government's guidance on the implementation of mining business permits is still less effective because there is no outreach to provide guidance on the implementation of mining business permits, and guidance is only carried out if someone is found to be violating the rules or operating illegally.

Acknowledgments

We are grateful to all the respondents who invested their time and energy to share their expertise and information about government supervision.

Disclosure Statement

The author declares that (s)he has no relevant or material financial interests that relate to the research described in this paper.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

References

- Baura, L., Sapttenno, M. J., & Pietersz, J. J. (2022). Kewenangan Pemerintah Daerah Dalam Pengelolaan Pertambangan Mineral Batubara. *PATTIMURA Legal Journal*, 1(3), 167–188. <https://doi.org/10.47268/pela.v1i3.6753>
- Gaby, S. R. P. (2021). Pengelolaan serta Pengaturan Hukum Pertambangan Mineral dan Batubara di Kota Samarinda. *Prosiding Seminar Nasional Teknik Lingkungan Kebumian SATU BUMI*, 2(1). <https://doi.org/10.31315/psb.v2i1.4445>
- Hidayat, T., Pratiwi, R. N., & Setyowati, E. (2016). Perencanaan Pengelolaan Tambang Pasir Besi di Kabupaten Kulon Progo dalam Perspektif Good Governance. *Jurnal Ilmiah Administrasi Publik*, 2(3), 100–114. <https://doi.org/10.21776/ub.jiap.2016.002.03.13>
- Kusyuniadi, I., & Buchori, I. (2020). Efektivitas Pengawasan Kelembagaan dan Masyarakat Terhadap Kebijakan Penataan Ruang (Kawasan Cagar Alam Geologi Karangsembung). *Jurnal Ilmu Lingkungan*, 18(2), 209–219. <https://doi.org/10.14710/jil.18.2.209-219>
- Lavian, C.J., Sahari, A., & Fauzi, A. (2020). Tindak Pidana Illegal Mining Bagi Perusahaan Yang Melakukan Pertambangan Tanpa Izin. *Journal of Education, Humaniora and Social Sciences (JEHSS)*, 3(2), 350–359. <https://doi.org/10.34007/jehss.v3i2.258>
- Maidie, A., Udayana, D., Isriansyah, I., Almady, I. F., Susanto, A., Sukarti, K., Sulistiawaty, S., Manege, I., & Tular, E. (2016). PEMANFAATAN KOLAM PENGENDAP TAMBANG BATUBARA UNTUK BUDIDAYA IKAN LOKAL DALAM KERAMBA. *Jurnal Riset Akuakultur*, 5(3), 437–448. <https://doi.org/10.15578/jra.5.3.2010.437-448>
- Nuralam, N., Adys, A. K., & Ma'ruf, A. (2018). PENGAWASAN PEMERINTAH PADA USAHA PENAMBANGAN BAHAN GALIAN GOLONGAN C DI KABUPATEN GOWA. *Kolaborasi : Jurnal Administrasi Publik*, 3(3), 326–341. <https://doi.org/10.26618/kjap.v3i3.1055>
- Poeri, R. D. (2022). PAJAK PERTAMBANGAN MINERAL BUKAN LOGAM DAN BATUAN SEBAGAI PENDAPATAN ASLI DAERAH KABUPATEN LUMAJANG. *Jurnal Hukum PRIORIS*, 8(2), 236–254. <https://doi.org/10.25105/prio.v8i2.14982>
- Putri, T. N., Supanto, ', & Lukitasari, D. (2020). KENDALA PEMERINTAH KABUPATEN MAGETAN DALAM MENINDAK PELAKU TINDAK PIDANA PENAMBANGAN PASIR ILEGAL. *Recidive : Jurnal Hukum Pidana Dan Penanggulangan Kejahatan*, 9(2), 145–152. <https://doi.org/10.20961/recidive.v9i2.47403>
- Redi, A., & Marfungah, L. (2021). Perkembangan Kebijakan Hukum Pertambangan Mineral dan Batubara di Indonesia. *Undang: Jurnal Hukum*, 4(2), 473–506. <https://doi.org/10.22437/ujh.4.2.473-506>
- Rohaya, S. (2018). Sistem Perlindungan Pemkab Aceh Besar Terhadap Pertambangan Batuan Dalam Perspektif Milk Al-Daulah (Penelitian pada Tambang Batuan di Kecamatan Indrapuri). *Petita : Jurnal Kajian Ilmu Hukum Dan Syariah*, 3(1), 142–153. <https://doi.org/10.22373/petita.v3i1.4019>
- Rosadi, O., & Jailani, A. K. (2023). EFEKTIVITAS PENEGAKAN HUKUM TERHADAP PELAKU PERUSAKAN LINGKUNGAN HIDUP AKIBAT PENAMBANGAN EMAS TANPA IZIN PADA SATRESKRIM POLRES SIJUNJUNG. *UNES Journal of Swara Justisia*, 7(1), 1–15. <https://doi.org/10.31933/ujsj.v7i1.305>
- Saleh, M., Khair, A., Sarkawi, S., & Kafrawi, K. (2020). Peran Pemerintah Daerah dalam Pengaturan Pertambangan Rakyat. *JATISWARA*, 35(3). <https://doi.org/10.29303/jtsw.v35i3.271>
- Takalapeta, I. M. J., Pello, J., & Yohanes, S. (2019). Pengaturan Perizinan Pengelolaan Tambang Dalam Mendukung Pembangunan Berkelanjutan. *JATISWARA*, 34(3), 268–282. <https://doi.org/10.29303/jtsw.v34i3.220>