

Stakeholder Analysis in the Implementation of Mining Business Licensing Policy in Aceh (Case Study in Krueng Baro Watershed Pidie Regency)

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ABSTRACT

This study aims to analyze the actors involved in the implementation of quarry mining business licensing policies, understand their respective roles and interests, and the interactions between actors in influencing policy effectiveness. This study uses a qualitative method with a case study approach, relying on primary data from semi-structured interviews, indirect observation, documentation, and secondary data analysis. The Power-Interest Grid model is used in stakeholder analysis. The results of the study identify thirteen stakeholders involved, dominated by the "subject" type. Most stakeholders have high interests but low power. Two main actors, namely the Aceh Investment and Integrated Services Agency and the Aceh Energy and Mineral Resources Agency, have dominant power in licensing and supervision. The main findings indicate an imbalance of authority between the provincial and district governments, which has led to weak supervision, high risks of environmental damage, and reduced policy implementation effectiveness due to a lack of coordination and low participation of local stakeholders. This study recommends strengthening cross-stakeholder coordination, increasing local stakeholder participation, improving data transparency, and establishing fair, effective, and sustainable policies.

Keywords: Stakeholder Analysis, Actor Analysis, Policy Implementation, Mining Business License, Quarrying C, Aceh

INTRODUCTION

Quarrying of Class C materials, including sand, stone, and gravel mining, is a type of mining that is essential for infrastructure development. Materials from Class C quarries are often used in various construction projects, such as the production of concrete for buildings, roads, bridges, and also in the manufacture of ceramics and other building materials. The presence and utilisation of these materials in the infrastructure development and industrial sectors make them a highly valuable resource that is often extensively exploited, thereby presenting both opportunities and challenges for local communities and governments. (Putra, 2021).

Aceh province is one of the regions that has abundant and diverse natural resources, one of which is class C excavation material. This article takes a case study of excavation C located in Pidie Regency, precisely in the Krueng Baro Lhok Keutapang and Beungga watersheds. This watershed stretches across several sub-districts and is the source of life for thousands of residents. The existence of rivers in the watershed not only provides a source of clean water for daily needs, but also irrigates agricultural lands that are very productive as the backbone of the community's economy (Darwin et al., 2021).

The exploitation of class C minerals in the Krueng Baro watershed is one of the fastest growing economic sectors in recent decades. The existence of the C excavation mining industry has a positive impact on the local economy, such as providing employment opportunities (Suriyani, 2019). Mining activities also increase community income both as

landowners, mine workers, and related business actors, in addition, the mining sector also encourages regional economic growth through taxes and levies that contribute to Regional Original Revenue (PAD) so that it can be used to finance regional development (Maharani et al., 2015). However, behind the economic benefits generated, C excavation mining activities also bring significant negative impacts on the environment.

Reporting from one of the local media *Serambi Indonesia*, it was explained that Krueng Lhok Keutapang, which is the watershed of Krueng Baro, was very alarming, due to the extraction of C excavation. Irregular excavation activities have caused the river surface to change. In the middle of the river, it is now split into a rut like a tributary, the cliff of the garden of one of the community's livelihoods is prone to landslides due to sand dredging and the biggest impact is damage to the environment and ecosystems such as water pollution, abrasion, damage to roads and public facilities (Nazar, 2024).

According to the results of previous research (Pratama & Surur, 2021), the negative impacts of C excavation mining are in the form of: land subsidence, erosion or erosion, deposition or sedimentation, noise, disturbance to the groundwater table, producing dust that pollutes the air, material transport truck traffic damages the physical soil and creates noise from dredging equipment and trucks (Baiti et al., 2022; Budiansyah, 2024; Candra et al., 2022; Fridtriyanda et al., 2023; Hariawan & Hadi, 2018; Reza, 2022; Rosita et al., 2022; Shihah et al., 2024; Wahyuditha & Syahrin, 2025).

To overcome these problems, the central government has issued Law. NO.3/TH. 2020 concerning Amendments to Law No 4/2009 concerning Mineral and coal mining, as well as at the Aceh Provincial level there is the Aceh Government Regulation, through Aceh Qanun No. 15/2013 concerning Mineral and Coal Mining Management, has established various policies related to mining business licenses to regulate and supervise C excavation mining activities. This Qanun regulates licensing procedures, supervision, and sanctions for rule violations. The main objective is to ensure that mining activities are conducted legally, measurably and in accordance with the principles of sustainability (Kurniawati, 2017).

Based on data from the Aceh Energy and Mineral Resources Agency (ESDM), there are several Mining Business Licenses (IUP) that have been issued in the Krueng Baro watershed. The following are the details of the license:

Table 1:
Data on Mining Business License for Excavation C in Pidie

No	Business License	Number of Licenses	Company
1.	Gravel Production Operation	11 May 2022 to 11 May 2024	CV. Meuligoe
2.	Mountain Stone Production Operation	25 May 2022 to 25 May 2025	CV. Lhok Keutapang Utama
3.	Gravel Production Operation	15 February 2023 to 15 February 2025	CV. Hijrah Berkah Beungga
4	Sand and Stone Exploration	5 Sept 2022 to 5 Sept 2024	CV. Alfa Pratama
5	Sand and Stone Exploration	14 April 2023 to 5 April 2025	CV. Gunung Mutiara Putih

Source: Aceh Energy and Mineral Resources Agency

The Table 1 shows that the licensing process has been running from 2022 to 2023. And involves several mining companies. However, problems arise when the implementation of this licensing policy still encounters various obstacles in the field. For example, ineffective supervision has caused some companies to carry out excessive exploitation without paying attention to environmental impacts, such as river damage, erosion, abrasion, water pollution, and infrastructure damage.

Therefore, stakeholder involvement in policy implementation is very important, because stakeholder can influence policy outcomes, objectives, and benefits (Marzaniar & Subarsono, 2023), stakeholder can increase the effectiveness of policy implementation in accordance with community needs, transparency, and sustainability, build strong partnerships between government and society (Putri, 2017), improve the quality of decisions by bringing valuable contributions from various perspectives (Wijayanti & Simin, 2023), create broader policies that are balanced and responsive to dynamic changes (Ramadhan Lubis et al., 2024). Thus is the mining licensing process, stakeholder have different interests and influences, which will affect their responsibilities in carrying out their respective duties and functions.

This study was conducted to fill the gap left by previous studies on quarrying, which, in terms of empirical novelty, show that this study was conducted in Pidie Regency in 2025, while previous studies were conducted in different locations and in different years, predominantly in 2020, 2022, and 2023. In terms of knowledge, no previous studies have examined the involvement of actors in the C-type mining process. Most previous researchers have focused on policy implementation (Arsyiah, 2018; Suriani, 2023), the implications of quarrying operations (Sutrisno et al., 2020), prevention of illegal mining of C excavation material (Endrawati, 2023), supervision (Rahmat imdar, Bukhari Yusuf, 2019; Sari et al., 2023; Suryani et al., 2020), mine management (Aulia et al., 2024), law enforcement (Andriana, 2021; Arjuna, Syahrin, Alvi Yunara, 2023; Surya, 2019), dispute resolution (Nurwanti & Irawati, 2020), management strategy (Wina Waniatri et al., 2022). The in terms of methodology, many studies use qualitative methods with a descriptive approach, but in this study using a case study approach, to the case of excavation C that occurs in the Krueng Baro watershed. Thus, this research is quite interesting to study.

To assess stakeholder, there are several models of stakeholder analysis, one of which is according to (Ackermann & Eden, 2011), stakeholder analysis needs to be grouped based on power and interest. Power is a force that does not only come from objects or people but everything that is contained in it, causing changes. Influence is defined as the power that comes from a person that affects their character and beliefs or actions. Interest is a continuum and is always dynamic depending on the changes that occur. Interests have an obligation to always maintain a balance by not excluding one of them. Interest is defined as something that is beneficial to society or a person.

The categorizing or grouping stakeholder based on the level of importance and influence is divided into four, namely subjects, which are stakeholder who have a low influence but have a very high importance players, which are stakeholder who have a high influence and importance context setters, which are stakeholders who have a high influence and importance but have a low importance, and the crowd is a stakeholder who has a low importance and influence (Hidayar et al., 2020).

Judging from the various problems above, it is important to conduct research related to actor analysis in quarry mining business licensing policy in the Krueng Baro watershed. Therefore, the involvement of several actors has diverse interests and influences, this involvement can affect the effectiveness of the implementation of the mining policy. This research aims to identify who the actors involved are, understand the roles and interests of each actor, and analyze how interactions between actors affect the implementation of the C excavation mining business licensing policy. Through this research, it is expected to provide

policy recommendations that are more effective and equitable for all parties, and can minimize negative impacts on the environment and local communities.

METHODS

This research uses a qualitative research method with a case study approach (Rusli et al., 2021), which aims to analyze the involvement of actors in the implementation of the C excavation mining business licensing policy. The main focus of this research is to identify the actors involved, analyze the level of power and interests of each actor, and understand how interactions between actors affect the effectiveness of policy implementation.

This research was conducted in the Krueng Baro watershed in Pidie Regency, Aceh Province. The research location was chosen because the Krueng Baro watershed is the center of C excavation activities that have a significant impact on the environment and local communities such as abrasion, water pollution, damage to infrastructure such as roads due to heavy equipment operations. This research was conducted from January to March 2025, including observation, interviews, and data analysis.

The selection of informants in this study was conducted using purposive sampling, namely informants who were considered to have knowledge, involvement, or direct influence on mining licensing policies. There were thirteen informants interviewed, consisting of: the Aceh Investment and Integrated Services Agency, the Aceh Energy and Mineral Resources Agency, the Sumatra I River Basin Agency, the Aceh Environment and Forestry Agency, the Pidie Regency Investment and Integrated Services Agency, the Pidie Regency Public Works and Spatial Planning Agency, the Pidie Regent, the Pidie Police, the Tangse Sub-district Head, village heads, local communities, mining business actors, and mine workers. The selection of informants was based on their institutional roles and functions, recommendations from key stakeholders, as well as their direct or indirect involvement in issues related to permits and the social and environmental impacts of C-type mining activities.

Data were collected through indirect observation, semi-structured interviews to maintain data reproducibility and credibility, and documentation from regulations, reports, news, and other official documents. Primary data came from field notes and interview transcripts, while secondary data was obtained from scientific journals, news articles and official government websites. This research uses stakeholder analysis techniques using the Power-Interest Grid model according to (Ackermann & Eden, 2011), which is mapped based on the level of power and interest in the policy.

RESULTS AND DISCUSSION

Stakeholder Identification

In the process of implementing the Krueng Baro watershed C excavation mining business licensing policy, it was identified that there were several stakeholders involved, and each stakeholder involved had their respective duties and functions in this policy.

Table 2:
Duties and Functions of Stakeholder

No	Stakeholder	Duties and functions	Regulation
1	Aceh Investment and One-Stop Integrated Service Agency (DPMPTSP Aceh)	Implementation of investment capital, licensing/non-licensing services across districts/cities, coordination between related institutions	Aceh Governor Regulation No. 121/2016
2	Aceh Energy and Mineral Resources Agency (DESDM Aceh)	Formulation and supervision of mineral and coal business policies, technical aspects, health and safety, environment, facility development, PNBP management, evaluation and reporting.	Aceh Governor Regulation No. 128/2016
3	Sumatra River Basin I (BWS Sumatra I)	Management and conservation of natural resources, preparation of technical recommendations related to the use of natural resources, supervision and monitoring, and determination of river boundary lines	Permen PUPR No.16/2020
4	Aceh Environment and Forestry Agency (DLHK Aceh)	Environmental management, hazardous waste management, environmental damage control, cross-agency coordination	Aceh Governor Regulation No. 115/2016
5	Pidie District Investment and One-Stop Integrated Service Agency (DPMPTSP Pidie)	Policy implementation, monitoring, investment services, evaluation, and reporting	Pidie Regent Regulation No. 58/2024
6	Pidie District Public Works and Spatial Planning Agency (DPUPR Pidie)	Policy, monitoring, and evaluation of public works and spatial planning	Pidie Regent Regulation No. 23/2024
7	Pidie Regent	Lead regional government affairs in accordance with regulations	Law. No. 23/2014
8	Pidie District Police	Law enforcement, security, criminal investigation, and coordination	Police Regulation Number 2/2021
9	Tangse Sub-District Head	Organizing district affairs in the kecamatan, fostering mukim and gampong	Pidie Regent Regulation Number 37/2017
10	Village Head	Leading the gampong government, development and participatory economy	Pidie District Qanun Number 8/2011

Source: Processed by Researchers

In addition to the above stakeholders, the author has also identified mining companies, mine workers, and local communities as non-governmental stakeholders who are also involved in the implementation of quarrying. The involvement of each of the stakeholders mentioned above is measured using two main indicators from the stakeholder Power Interest Grid model, namely power and interest. Power is identified based on coercive power (based on physical resources, restraint, violence or coercion), utilitarian power (based on material or financial resources), and normative power (based on symbolic resources and the strategies of stakeholders in using their authority or position to influence policymakers) (Marzaniar & Subarsono, 2023).

Interests can be seen based on expectations, reputation, and potential benefits related to quarrying licensing policies C in the area (Rustinsyah, 2018). The stakeholders above will be mapped according to their attributes, which can be seen in the following table:

Table 3:
Stakeholder Mapping Based on Owned Attributes

No	Stakeholder	Power			Interest			Type of Stakeholder
		K	U	N	H	R	P	
1.	Aceh Investment and One-Stop Integrated Service Office	√	×	√	√	√	√	Players
2	Aceh Energy and Mineral Resources Office	√	√	√	√	√	√	Players
3	Sumatra River Basin I	×	√	√	√	×	×	Context Setter
4	Aceh Environment and Forestry Office	×	√	√	√	×	×	Context Setter
5	Pidie District Investment and One-Stop Integrated Service Office	×	×	√	√	√	×	Subject
6	Pidie District Public Works and Spatial Planning Office	×	×	×	√	√	×	Subject
7	Pidie Regent	×	×	√	√	√	×	Subject
8	Pidie District Police	√	×	√	√	×	×	Context Setter
9	Tangse Sub-District Head	×	×	√	√	√	×	Subject
10	Village Head	×	×	√	√	√	×	Subject
11	Community	×	×	×	√	√	√	subject
12	Companies (CV Meulingoe)	×	√	×	√	√	√	Subject
13	Mine Worker	×	×	×	×	×	√	crowd

Source: Processed by Researchers

Description:

K = Koersive

U = Utilitarian

N = Normative

H = Hope

R = Reputation

P = Potential Benefit

Table 3 illustrates that each stakeholder involved in the implementation of the mining business licensing policy in the Krueng Baro watershed has different powers and interests. With one stakeholder categorized as Crowd because it only has low power and interests, three stakeholders are said to be Context setters because they have high power but their interests are only in terms of expectations, two stakeholders are said to be Players because they have high power and interests, and seven stakeholders are said to be Subject because they have low power both in terms of coercive and utilitarian, but have high interests both in terms of

expectations and reputation. Therefore, each stakeholder's interest and power will affect the achievement of policy outputs.

Types of Stakeholder

After identification, categorization or grouping of stakeholders needs to be done to determine the level of importance and influence.

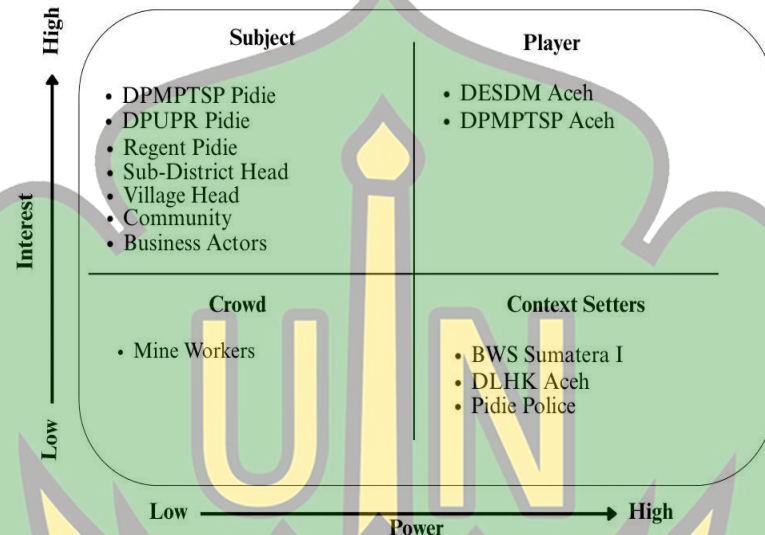


Figure 1. Stakeholder Mapping on the Power-Interest Grid

Source: The researchers adopted the power-interest model by (Ackermann & Eden, 2011)

1. Subject

Stakeholders included in the subject category have low power but high interests. Stakeholders included in this classification after field research are the Pidie Regency One-Stop Integrated Service Investment Office, Pidie Regency Public Works and Spatial Planning Office, Pidie Regent, Sub-District Head, and Village Head. These five stakeholders only have the authority to provide technical and administrative recommendations related to the proposed Mining Business License Area (WIUP), spatial planning and land suitability, since the authority related to the mining business licensing of excavation C has become the right of the provincial government causing the role of local governments to be limited, although they conduct monitoring and evaluation but cannot carry out regulation. This delegation of authority makes the Pidie Regency One Stop Integrated Service Investment Office often not receive information related to companies that have been granted licenses, so when problems arise in the field they have difficulty taking action because they do not have a strong legal basis.

In terms of interests, they have a high interest in the success of the implementation of the excavation c licensing policy, although not personal interests, but they have high hopes for the success of the policy so as not to cause environmental and infrastructure damage, and can maintain the reputation of the region from negative news about mining that is not in accordance with the rules. Business actors and the community are also included in this category because they have high interests in terms of expectations, reputation and potential benefits. This quarrying business license policy helps the community in terms of the economy, but they will also feel a large environmental impact.

From a power perspective, businesses and communities have very limited power to influence policy. Communities have coercive power, whereby they have the ability to socially reject mining through protests, but such actions cannot stop mining operations that have

already caused negative impacts on communities. Businesses, on the other hand, only have utilitarian power, whereby obtaining mining permits requires significant costs, including administrative fees, site surveys, legal procedures, and other supporting documents required as part of the operational eligibility criteria submitted during the permitting process. Beyond that, businesses will simply follow all established standard operating procedures (SOP).

2. Player

Those included in the player category have significant power and interests in the implementation of mining permits for Class C minerals. Stakeholders in this classification include the Aceh Investment and One-Stop Service Agency and the Aceh Energy and Mineral Resources Agency. These two agencies are categorized as players because they have the authority to formulate mining permit policies for Class C minerals. The Aceh Investment and One-Stop Service Agency has the authority to issue and revoke permits, while the Aceh Energy and Mineral Resources Agency does not have the authority to revoke permits but has the authority to temporarily suspend mining operations, impose administrative sanctions on violators, and conduct supervision and oversight of operational activities, technical aspects, and workplace safety.

This delegation of authority establishes the Aceh One-Stop Integrated Investment Service Agency and the Aceh Energy and Mineral Resources Agency as stakeholders with significant influence over the implementation of C-type mining permit policies in the Krueng Baro River Basin. Although the Aceh Investment and One-Stop Integrated Service Agency has limited utilitarian authority, as it primarily acts as a facilitator in the licensing process, it holds strong influence in other aspects of authority. In terms of interests, both stakeholders have high stakes in terms of expectations and reputation, as they want every permit issued to be implemented in accordance with established regulations to avoid environmental damage that could disrupt local community activities, as this would significantly impact their reputation as permit issuers and supervisors. In terms of potential benefits, the Aceh Energy and Mineral Resources Agency manages Non-Tax State Revenue (PNBP) through fees paid by businesses amounting to 10 or 20 thousand per hectare per year, which are utilized to increase regional income.

3. Context Setter

Stakeholders in this category have high power but low interest. The Aceh Environment and Forestry Agency and the Sumatra I River Basin Agency fall into this classification. Since these stakeholders have the ability or authority to influence the policy-making process, particularly regarding the issuance of environmental permits and technical recommendations which are prerequisites for obtaining an IUP (Mining Business License) for Production Operations they also have the capacity to hinder or expedite the policy process, such as by refusing to issue permits or delaying recommendations if the submitted application does not meet the requirements or is incomplete.

Although they wield significant power, their level of importance is relatively low because these two stakeholders have no political ambitions or economic gains from the implementation of this policy. They are only focused on monitoring, protecting, and utilizing the river in a sustainable manner, as well as ensuring that mining activities do not encroach on protected forest areas. The police also fall into this category because they have the authority to conduct oversight, enforce the law, and halt mining activities that lack proper permits. Their involvement is limited to regulating illegal mining and preventing conflicts between the community and business operators. In terms of their interests, they only hope that business operators will follow the established SOPs for the permitting process and that there will be no environmental damage that could have a negative impact on the community and the surrounding ecosystem.

4. Crowd

Those with low power and interests are referred to as the crowd. Stakeholders included in this classification are mine workers who only carry out orders without direct involvement in policy-making or decision-making processes. They only play a role as workers to assist business actors in the transportation of quarry materials in the Krueng Baro watershed and receive wages for their work.

Stakeholder Analysis

Based on the types of stakeholders mapped above, it can be seen that there are thirteen stakeholders involved in the implementation of the C-type mining business licensing policy in the Krueng Baro River Basin (DAS), where the most dominant type of stakeholder here is the subject, with seven stakeholders who have high interests but low power. Since the authority related to mining permits for Class C minerals has become the responsibility of the provincial government, the local government no longer has authority over permits and only serves as a recommender.

This has led to a power imbalance that has weakened oversight and made it hard for local stakeholders to deal with environmental impacts, like river damage, erosion, and water pollution, as well as damage to roads and public facilities that really messes with local community activities. The folks who feel the most negative effects of mining, like the community, are the ones with the least power. although the community has protested against the mining operations that have caused significant distress, such actions have not influenced the policy-making process. From the perspective of community interests, there is a high level of interest in the potential benefits, as it can support their economy, even though the benefits are not yet fully equitable, they have already provided sufficient assistance to those with unstable incomes. However, the negative impacts felt are also significant.

The stakeholders with the greatest ability to influence policy are the Aceh Investment and One-Stop Integrated Service Agency and the Aceh Energy and Mineral Resources Agency, because they wield considerable power and also adopt all three attributes of interest. These two stakeholders are considered key stakeholders because they hold primary control over the licensing process and operational oversight of mining activities, including the authority to issue, revoke Mining Business Permits (IUP), and impose sanctions. With such authority, these two stakeholders significantly influence the implementation of mining business licensing policies for Category C mining in the Krueng Baro River Basin.

Overall, there are twelve stakeholders directly involved in the legal quarrying process and one stakeholder who will be involved in illegal quarrying. It is considered legal quarrying because the business operators have complied with all Standard Operating Procedures (SOPs) and fulfilled all the requirements necessary to obtain a permit, starting from the application for area reservation, application for an exploration IUP, and application for a production IUP. The involvement of the provincial and local governments is required in this application process.

The community is also involved because they are the ones who feel the impact of quarry mining the most, both positive and negative, while mine workers are involved in facilitating the transportation of quarry materials. Illegal mining refers to businesses that do not follow the standard operating procedures (SOP) related to licensing and the requirements for obtaining a license, and whose company names are not registered as license holders. If illegal mining is discovered, it is enforced by the police, who are the only stakeholders involved in monitoring illegal mining with the authority to enforce licensing violations. Meanwhile, government agencies such as the Aceh Investment and Integrated One-Stop Service Agency and the Aceh Energy and Mineral Resources Agency do not have authority over unlicensed mines. However, they can assist by providing data on companies that have obtained permits, thereby facilitating the enforcement process.

Furthermore, coordination between the provincial and district governments in implementing policy on quarrying permits in the Krueng Baro River Basin shows an imbalance of authority. Provincial government agencies such as the Aceh Investment and Integrated Services Agency and the Aceh Energy and Mineral Resources Agency play a dominant role, while district governments tend to have limited administrative authority. Stakeholders at the district level often do not receive up-to-date information on the number and status of permits issued, leading to weak oversight in the field. This lack of synchronization poses a challenge in achieving sustainable and conflict-free mining management.

CONCLUSION

Based on the results of stakeholder identification, there are thirteen stakeholders involved in the implementation of the mining permit policy in the Krueng Baro River basin. These stakeholders consist of various government elements such as the provincial government, district government, law enforcement officials, as well as non-government stakeholders such as the community, business actors, and mine workers. Among all the stakeholders involved, the most dominant stakeholder are the Aceh Investment and Integrated One-Stop Service Agency and the Aceh Energy and Mineral Resources Agency, which have full authority over the licensing and supervision processes. The dominance of these stakeholders has a significant impact on the success or failure of policy implementation, particularly in terms of supervision and environmental impact management. However, if this authority is not balanced with the participation of local governments and communities with high stakes, the risk of disparities, lack of transparency, loss of trust in leaders, and most importantly, negative impacts on the environment and local communities may increase. Therefore, it is important to enhance coordination and participation among all stakeholders to ensure that policies are implemented fairly, effectively, and sustainably. There are several recommendations offered in this study, including strengthening coordination across levels of government, namely between agencies that have full authority over mining and agencies that have little influence, so that there is no gap in information and responsibility in mining supervision. Active involvement of local stakeholders, such as communities, village heads, and sub-district heads, in the decision-making process and evaluation of policies and regulations that are more favorable to the people, as they are the ones most affected by the negative impacts of mining. Transparency in licensing and oversight data, where provincial governments must submit data on the number of permits issued, oversight data, and mine reclamation plans so that local governments can monitor and provide input. Establishing a multi-stakeholder communication forum that can serve as a space for dialogue and joint oversight between the government, communities, and businesses, to create participatory and responsive solutions to on-the-ground issues.

REFERENCES

- Ackermann, F., & Eden, C. (2011). Strategic Management of Stakeholders: Theory and Practice. *Long Range Planning*, 44(3). <https://doi.org/10.1016/j.lrp.2010.08.001>
- Andriana, A. (2021). Penegakan Hukum Terhadap Kegiatan Tambang Galian C Ilegal di Kabupaten Wakatobi. *Sultra Research of Law*, 3(2), 37–44. <https://doi.org/10.54297/surel.v3i2.28>
- Arjuna, Syahrin, Alvi Yunara, E. M. (2023). *Penegakan Hukum Pidana Terhadap Pelaku Tindak*. 2(6), 500–511.

- Arsyiah, W. O. (2018). *Implementasi Kebijakan Pengelolaan Tambang Galian C Di Kecamatan Batauga Kabupaten Buton Selatan*. 26–33.
- Aulia, S., Albar, A., & Kahfi, A. (2024). *Pengelolaan Tambang Galian C terhadap Lingkungan Hidup di Kabupaten Bulukumba; Analisis Fiqh Bi'ah*. 05(1), 72–88. <https://doi.org/10.24252/shautuna.v5i1.40066>
- Baiti, S. N., Saputra, A., Geografi, P. S., Geografi, F., & Surakarta, U. M. (2022). *Analisis Dampak Kerusakan Lingkungan dan Persepsi Masyarakat Terhadap Penambangan Karst di Kendeng Utara Kecamatan Tanggunharjo Kabupaten Grobogan*.
- Budiansyah, A. (2024). *Dampak Aktivitas Pertambangan Galian C Terhadap Lingkungan*. 3(1), 38–44.
- Candra, T., Ndibale, W., & Ilham, I. (2022). *Pengaruh Aktivitas Penambangan Pasir terhadap Kualitas Air Sungai Lemo Kelurahan Nambo Kota Kendari*. 02, 23–26.
- Darwin, D., Syahrul, S., & Basri, H. (2021). Analisis Karakteristik Hidrologi DAS Krueng Aceh, Provinsi Aceh (Studi Kasus Sub DAS Krueng Jreu dan Sub DAS Krueng Khea). *Rona Teknik Pertanian*, 14(1), 58–72. <https://doi.org/10.17969/rtp.v14i1.21606>
- Endrawati, H. (2023). *Penerapan Kebijakan Publik Dalam Upaya Pencegahan Pertambangan Illegal Bahan Galian C (Studi Kasus di Kecamatan Batauga Kabupaten Buton Selatan)*.
- Fridtriyanda, A., Herniti, D., Pranajati, A., & Wicaksana, A. D. (2023). *Analisis Kerusakan Lingkungan Fisik Pada Penambangan Pasir Sungai di Wilayah Kalurahan Sendangsari Kapanewon Pajangan, Kabupaten Bantul*. 23(1), 17–26.
- Hariawan, A. B., & Hadi, A. P. (2018). *Dampak Penanganan Galian C di Daerah Aliran Sungai Bentek*.
- Hidayar, N. Candra., Setijanirum, Erna., & Asmorowati, Sulikah. (2020). *Analisis Pemangku Kepentingan Pengelolaan Sumber Daya Hutan di Kabupaten Jember (Studi Kasus Tugusari Kaabupaten Jember)*.
- Kurniawati, P. (2017). Qanun aceh nomor 15 Tahun 2017. *Universitas Nusantara PGRI Kediri*, 01, 1–7.
- Maharani, M. D., Tipe N, Z., & Puspa, S. (2015). Kajian Pemberdayaan Masyarakat dan Pengelolaan Pertambangan Ditinjau dari Perspektif Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral dan Batubara. In *Jurnal Privat Law* (Vol. 6, pp. 12–19).
- Marzaniar, P., & Subarsono, A. (2023). Stakeholder Salience Analysis in the Policy Formulation of Anti-Violence Against Women and Children. *Journal of Contemporary Governance and Public Policy*, 4(2), 149–174. <https://doi.org/10.46507/jcgpp.v4i2.158>
- Nazar, M. (2024). Galian C Rusak Krueng Tangse. *Serambinews.Com*.
- Nurwanti, Y. D., & Irawati, D. (2020). *Penyelesaian Sengketa Lingkungan Izin Pertambangan Galian C Melalui Alternative Dispute Resolution (ADR) di Desa cepogo Boyolali*. 1(6), 1269–1278.
- Pratama, M. R., & Surur, F. (2021). Pengaruh Aktivitas Tambang Galian C Terhadap Perubahan Lingkungan Fisik Di Kecamatan Parangloe Kabupaten Gowa. *Jurnal Sains Teknologi & Lingkungan*, 7(1), 13–23. <https://doi.org/10.29303/jstl.v7i1.200>
- Putra, Y. G. (2021). *Strategi Komunikasi Pemasaran PT. sinar Mutiara Megalithindo Dalam Memasarkan Produk Industri Bahan Galian C di Desa Loli Oge*.

- Putri, D. F. (2017). Analisa Stakeholder dalam Implementasi Kebijakan Kenanggulangan Kemiskinan Di Kota Madiun. *Universitas Airlangga*, 1–10.
- Rahmat imdar, Bukhari Yusuf, U. (2019). *Perizinan dan Pengawasan Bahan Galian C Oleh Bidang Mineral dan Batu Bara Dinas Energi Dan Sumber Daya Mineral Provinsi Aceh*.
- Ramadhan Lubis, Putri Nabila, Nurul Ilmi Nasution, Lathifah Azzahra, Hasraful, & Fadillah Andina6. (2024). Evaluasi Dampak Keterlibatan Pemangku Kepentingan Dalam Pengambilan Keputusan Strategi Organisasi. *Jurnal Review Pendidikan Dan Pengajaran*, 7(3), 7899–7906.
- Reza, F. (2022). *Pengaruh Penambangan Pasir Galian C Terhadap Kelestarian Lingkungan Di Sekitar Daerah Aliran Sungai (DAS) Krueng Peusangan*. 6(3), 42–47.
- Rosita, R., Ibrahim, K., & Gunawan, G. (2022). Dampak Galian C Terhadap Lingkungan Alam Masyarakat Lingkar Tambang di Kota Ternate. *Cannarium*, 20(1), 20–23. <https://doi.org/10.33387/cannarium.v20i1.4860>
- Rusli, M., Pendidikan, D., & Timur, L. (2021). *Merancang Penelitian Kualitatif Dasar / Deskriptif dan Studi Kasus*. 1–13.
- Rustinsyah, R. (2018). The power and interest indicators of the stakeholders of a Water User Association around Bengawan Solo River, Indonesia. *Data in Brief*, 19, 2398–2403. <https://doi.org/10.1016/j.dib.2018.07.030>
- Sari, I. P., Akhmaddhian, S., & Yuhandra, E. (2023). *Pengawasan Pemerintah Daerah Kabupaten Kuningan Terhadap Pertambangan Galian C*. 14(3), 15–20.
- Shihah, A., Amandari, D., & Anggraini, R. G. (2024). *Investigasi Kualitatif Terhadap Dampak Penambangan Pasir di Sungai Sematang Borang , Kota Palembang*. 540–554.
- Suriani. (2023). *implementasi kebijakan pemberian izin usaha pertambangan galian golongan c di kabupaten kolaka*.
- Suriyani. (2019). *Dampak Positif Aktivitas Pertambangan Nikel Terhadap Kondisi Sosial*. 2(1), 58–64.
- Surya, A. (2019). Penegakan Hukum Terhadap Pertambangan Galian C Tanpa Izin Di Kabupaten Bener Meriah. *RESAM Jurnal Hukum*, 5(2), 126–140.
- Suryani, L. P., Hukum, F., & Warmadewa, U. (2020). *Pengawasan Pemerintah Daerah Terhadap Usaha Pertambangan Galian C di Kabupaten Ngada*. 1(2), 138–141.
- Sutrisno, E., Sutarih, A., & Artadi, I. (2020). *Implikasi Usaha Penambang Galian C Terhadap Degradasi Kualitas Mutu Lingkungan Hidup Sungai (Studi Kasus Kecamatan Palasah Kabupaten Majalengka) Jebakan kemiskinan yang membelenggu penduduk miskin sebagai akar segala ketidakberdayaan telah menggugah perh*. 3(01), 1–10.
- Wahyuditha, T. F., & Syahrin, M. A. (2025). *Jurnal Kajian Ilmu Hukum : Analisis Dampak Penambangan Galian C di Kecamatan Kertek Kabupaten Wonosobo Berdasarkan Undang-Undang Nomor 3 Tahun 2020*. 4(1), 1–12.
- Wijayanti, D., & Simin. (2023). Analisa Stakeholder Dalam Implementasi Kebijakan Penanggulangan Pandemi Covid-19 Di Kabupaten Purbalingga. *Public Policy and Management Inquiry*, 7(2), 747–756.
- Wina Waniatri, Muslihudin, & Lestari, S. (2022). Strategi Pengelolaan Pertambangan Pasir Berkelanjutan di Desa Luragung Landeuh, Kuningan, Jawa Barat. *Jurnal Ilmiah Pendidikan Lingkungan Dan Pembangunan*, 23(01), 28–41. <https://doi.org/10.21009/plpb.v23i01.23960>