



Law Enforcement of Reclamation and Post Coal Mining Policy in East Kalimantan Province, Indonesia: Study of Evaluation and Strengthening of Environmental Law

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Abstract

East Kalimantan has a large coal reserve and is the center of the mining industry which contributes greatly to Indonesia's economy. However, the impact of the coal mining industry to the environment is extremely worrying. This is because the company's compliance in carrying out reclamation and post-mining obligations is very lacking. This study aims to evaluate as well as strengthen the law enforcement of reclamation and post-coal mining policies in East Kalimantan. The research method used is sociolegal, by making observations around the mining area in East Kalimantan and supported by secondary data which is analyzed using the interpretation method. The results of this study indicate the factors that affect the weakness of law enforcement in implementing reclamation and post-mining policies, namely: (a) non-compliance by mining companies; (b) multiple interpretations and non-operational reclamation and post-mining regulations; (c) weak supervision of mining activities; and (d) low public awareness. Therefore, it is necessary to strengthen the law enforcement for reclamation and post-coal mining in East Kalimantan, which can be done through: 1) legal substance; 2) legal structure; 3) community's legal culture; 4) improvement of facilities and infrastructure; and 5) the utilization of technology.

Keywords: *Law Enforcement; Reclamation; Post-Mining; Coal Mining; Evaluation; Reinforcement*

Introduction

Indonesia has abundant natural resources, one of which is coal mining. Based on a report from the Ministry of Energy and Mineral Resources (ESDM), East Kalimantan's coal reserves were recorded at 16.07 billion tons (41.42%) in 2020. This number makes East Kalimantan the province with the largest coal reserves in Indonesia (Dihni, 2021). This leads the economy in East Kalimantan to grow by 2.48% and presented the highest contribution of 49.66 percent on the island of Kalimantan in 2021, where the HBA rose by 110.69% for the period of January 2021 to December 2021 (Syarawie, 2022).

However, since coal is a non-renewable natural resource, it is necessary to emphasize the precautionary principle in its management (Frastien et al., 2021). Indonesia in its mining system uses an open pit mining pattern that changes the landscape (Subowo, 2011). If mining management is not carried out according to law, it will have a ravaging impact on the environment and can also endanger the lives of surrounding humans, such as causing water pollution, soil pollution, air pollution, as well as threaten the sustainability of the biological ecosystem around the mine (Environmental Law Alliance Worldwide, 2010).

One of the basic steps that must be taken by mine managers to minimize environmental damage is reclamation and post-mining programs (Energy and Mineral Resources Agency of East Kalimantan Province, 2022). According to Article 1 Number 1 of Regulation of the Minister of Energy and Mineral Resources Number 7 of 2014 concerning the Implementation of Reclamation and Post-Mining in the Activities of Mineral and Coal Mining Business, Reclamation is an activity carried out throughout the stages of the mining business to organize, restore, and improve the quality of the environment and ecosystem so that it can function again according to its designation. Meanwhile, post-mining activities are planned, systematic, and continuing activities after the end of part or all of the mining business activities to restore the functions of the natural environment and social functions according to local conditions throughout the mining area. Appropriate and integrated reclamation and post-mining activities need to be carried out as early as possible without having to wait for the entire mining process to be completed.

Since 2013, through Regional Regulation Number 8 of 2013 concerning the Implementation of Reclamation and Post-mining, East Kalimantan Province has regulated the policy of reclamation and post-coal mining in accordance with the norms, standards, procedures and criteria set by the central government. This policy is very relevant, considering that the area of coal mining in East Kalimantan is covering 5,137,875.22 hectares out of East Kalimantan's 12.7 million hectares. The number of mining permits in East Kalimantan is 1,404 categories of mining business permits (IUP) issued by Regional Heads, of which 30 are related to Coal Concession Cooperation Agreements (PKP2B) with an area of 1,006,139.63 hectares (JATAM, 2019).

However, given the large number of coal mining permits issued by the regional government along with the large mining areas, law enforcement for reclamation and post-mining policies is a crucial issue to discuss. According to Satjipto Rahardjo, law enforcement is closely related to the process of making legal objectives to come true. Legal objectives are the ideas of the legislature which formulated in legal regulations. Efforts to apply the law in concrete conditions are carried out either through the judicial process or outside the judiciary, so that the level of compliance with the law can be determined (Rahardjo, 2009).

In fact, the enforcement of environmental law in terms of reclamation and post-coal mining is not optimally implemented. Based on data from the East Kalimantan Mining Advocacy Network (Jatam), in 2019 there were around 1,735 ex-mining holes from 1,404 companies that were left abandoned. All these holes are an ecological threat as well as being life-threatening for children. As of 2020, 39 people have died as a result of drowning in unreclaimed coal mine pits (Bachruddin & Saraswati, 2021).

In addition, the hilly and steep topography of East Kalimantan causes soil erosion if the plant layer is lost. Poor water quality is the result of plant removal, resulting in river deposition, suspended solids, and mineral and metal contamination in surface water. This consequently resulted in decreased soil fertility. Damage to the natural state of the soil occurs very quickly and is sometimes irreversible (Jaringan Advokasi Tambang & Waterkeeper Alliance, n.d.).

Furthermore, a 2014 Greenpeace study analyzed samples of surface water and wastewater at mining sites and their surroundings. Laboratory results from water samples taken from mining sites in East Kalimantan and the surrounding waterways indicate heavy metal concentrations and acidity levels

that exceed acceptable limits for food production systems. Farmers complain that wastewater from coal mining activities flowing to their fields, damaging crops and destroying food production activities. Farmers stated that since using mine pit water, rice yields have decreased by 50 percent and fish production has decreased by 80 percent compared to before using the water (Jaringan Advokasi Tambang & Waterkeeper Alliance, n.d.).

Based on the results of the researcher's observations, some of the apparent indications are including: (1) There are still many coal mining companies that have not implemented reclamation and post-mining programs; (2) There are a number of coal mining companies that are still reluctant to report the implementation of reclamation to the relevant agencies; (3) It is still found that many mining pits and mining areas have not been restored and reorganized; and (4) the orientation of coal mining companies in general is still oriented to the area covering, and has not put priority on the quality of the reclamation.

The failure of law enforcement on reclamation and post-mining policies in East Kalimantan is caused by many factors, some of which include: (1) the capacity and integrity of regional heads, (2) the capacity and integrity of the government bureaucracy, (3) the level of corruption in the mining business, (4) the existence of an oligarchy in the mining business, (5) transparency in the mining business licensing system, (6) coordination and synergy between government organizations in mining governance, and (7) law enforcement. Another variable that also has a strong influence on the other variables is the variable of government supervision and control to mining activities (Bachruddin & Saraswati, 2021; Rangkuti, 2005).

Based on the description of the background above, the author feels it is important to conduct a study on the evaluation and strengthening of law enforcement on reclamation and post-coal mining policies in East Kalimantan Province, Indonesia.

Research Method

This research is a legal research using a sociolegal approach. This research was conducted in East Kalimantan Province by emphasizing analysis on 2 indicators, namely evaluation and strengthening. The reality of these two indicators will be analyzed through empirical phenomena that can be observed in the implementation of law enforcement regarding reclamation and post-coal mining policies. Secondary data in this study were collected through various laws and regulations, books, journals and other data relevant to this research. Furthermore, the data was analyzed by means of interpretation.

Results and Discussion

1. Evaluation of Coal Reclamation and Post-Mining Policies in East Kalimantan, Indonesia: Gap between *Das Sollen* and *Das Sein*

Reclamation and post-mining activities are a form of obligation for mineral and coal mining business license holders which are regulated by Law Number 4 of 2009 concerning Mineral and Coal Mining as amended by Law Number 3 of 2020, in conjunction with Government Regulation (PP) Number 78 of 2010 concerning Reclamation and Post-mining, in conjunction with Ministerial Regulation No. 7 of 2014 concerning the Implementation of Reclamation and Post-mining in Mineral and Coal Mining Business Activities. Furthermore, there are also regulations in the Minister of Energy and Mineral Resources Regulation No. 26/2018 concerning the Implementation of Good Mining Rules and Supervision of Mineral and Coal Mining and the Decree of the Minister of Energy and Mineral Resources No. 1827/K/30/MEM/2018 2018, Appendices V and VI regarding Guidelines for the Implementation of Good Mining Engineering Principles (Center of Legal Study on Energy and Mining, 2021).

Government Regulation Number 78 of 2010 concerning Reclamation and Post-mining confirms that holders of Exploration License/IUP and Exploration License/IUPK are obliged to carry out reclamation and post-mining. The implementation of reclamation and post-mining by Production Operation License/IUP holders must comply with the following principles: (a) Protection and management of the mining environment; (b) Work safety and health; and (c) Mineral and coal conservation. Furthermore, the principle of protection and management of the mining environment for the holders of Exploration License/IUP and Exploration License/IUPK must meet the following criteria:

- a. Protection to the quality of surface water, ground water, sea water, and soil and air based on quality standards or standard criteria for environmental damage in accordance with the provisions of laws and regulations;
- b. Protection and Conservation of Biodiversity;
- c. Guarantee the stability and safety of overburden piles, tailings ponds, ex-mining land, and other man-made structures;
- d. Utilization of ex-mining land in accordance to its designation;
- e. Pay respect to local social and cultural values; and
- f. Protection of groundwater quality in accordance with the provisions of the legislation.

Technically, the reclamation and post-mining policy consists of several stages, namely: (a) Submitting the Reclamation Plan and Post-mining Plan; (b) Compile the policies based on the provisions of laws and regulations in the field of environmental protection and management; and (c) Consult the plan with the Stakeholders.

However, the fact shows that reclamation and post-mining activities are not running as they should, including in terms of law enforcement on the implementation of company obligations. The problems that occur are caused by several factors, including:

1. Inobedience of Mining Company

Many coal mining companies in East Kalimantan that carry out reclamation and post-mining policies do not comply with the provisions of the applicable laws and regulations. Sarkowi V Zahry explained:

“The implementation of reclamation consists of the planning, implementation and reporting stages. Each stage of the reclamation is full of obligations that must be fulfilled and carried out by the mining license holder. In fact, implementation of reclamation at those three stages requires transparency, participation and accountability so that policy implementation can be carried out properly. However, it is unfortunate that the implementation has not lived up to expectations. There are still many companies that have not complied with the stages and requirements outlined in both the reclamation implementation and reporting.” (Zahry, 2018)

This statement shows the level of awareness of coal mining companies is still low. This is proved in post-mining activities, where there are still a small number of mining companies who are obedient and orderly in submitting plan documents and reporting on post-mining implementation. Furthermore, Sarkowi V Zahry elaborated:

“In the regulation, post-mining implementation should be declared complete if it has been verified and approved by the Governor, and/or Regent/Mayor according to their authority. Verification and completion statements by the permit issuer can be carried out before the expiration of the permit period. Meanwhile, the return of ex-mining land within the State forest area must be carried out in the form of vegetation. As in the area of other uses/non-forestry cultivation (APL),

then the return of ex-mining land should be in the form of vegetated and/or prioritized for livestock and community plantation activities. At last, after post-mining activities are completed, the permit holder is obliged to hand over the land to the local government or the rightful party through the signing of the minutes of delivery” (Zahry, 2018).

So far, the reclamation and post-mining guarantee deposits from mining companies in East Kalimantan show that “the compliance rate is 38 percent for reclamation guarantees, and 11 percent for post-mining guarantees. Whereas these funds are funds provided by the company in a certain amount as collateral for reclamation and post-mining implementation, also as a form of obligation as well as a form of company commitment to the implementation of reclamation and post-mining as mandated by laws and regulations (Zahry, 2018).

The company's non-compliance can also be seen by the large number of pits (ex-mining holes) that are left in each province, on average, between hundreds and thousands of mining pits. For example, the Satellite Imagery Data taken by the Mining and Energy Agency of the East Kalimantan Province, in 2017 found at least 632 mining pits spread across the East Kalimantan region (Mining and Energy Agency of East Kalimantan Province, 2017). Meanwhile, data from a Non-Governmental Organization in East Kalimantan, JATAM (Mining Advocacy Network) shows that in East Kalimantan there are 4,464 mining pits in scattered locations (Gunawan, 2016).

The results of a study by the Corruption Eradication Commission (KPK) through the Coordination and Supervision Team of Mineral and Coal, the KPK pays serious attention to the disobedience of mining companies in Indonesia in providing reclamation guarantees. KPK advisor Mohammad Tsani Annafari said, "From the data provided by the Ministry of Energy and Mineral Resources as of July 2019, there are still 3,120 companies that have not pay reclamation guarantee in various regions in Indonesia. More than half of them are IUP holders issued by local governments” (Utama, 2019). The company's obligation to deposit reclamation guarantees in the form of money is stated in the Regulation of the Minister of Energy and Mineral Resources Number 7 of 2014 concerning the Implementation of Reclamation and Post-Mining policy in Mineral and Coal Mining Business Activities.

2. Multiple Interpretations and Non-Performing Rules for Reclamation and Post-Mining

Mining companies often seek refuge in articles in regulations whose editorials are not clear and have multiple interpretations. For example, Article 96 point (c) of Law Number 4 Year 2009 concerning Mineral and Coal Mining which states "In the application of good mining engineering principles, IUP and IUPK holders are obliged to carry out management and monitoring of the mining environment, including executing reclamation and post-mining activities". Likewise, Government Regulation Number 78 of 2010 concerning Reclamation and Post-mining does not provide detailed regulations, especially those concerning aspects of society and local wisdom, including the Regulation of the Minister of Energy and Mineral Resources (ESDM) Number 07 of 2014 concerning Implementation of Reclamation and Post-mining in Mineral and Coal Mining Business Activities. Whereas law enforcement does not rely solely upon aspects of legal substance, the presence of enforcement officers, or technology, but the most important is the community aspect. Community participation and insight into local wisdom turned out to be one of the factors that weakened law enforcement.

Likewise, there are articles that are not operational in Law Number 4 of 2009, including: Article 92, Article 169, Article 170, Article 43 paragraph (2), Article 6 letters f and g, Article 7 letter b, c,d, Article 124 paragraph (3), Article 127, Article 112 paragraph (1), Article 145, and Article 162. For example, Article 124 paragraph (3) which limits mining services business to provide mining services (overburden removal, coal getting, etc.) processing and refinery can be confirmed to be not operational

because mining companies still allowed to outsource the provision of those services through equipment rental, excavation and transportation.

3. Weak Supervision to Mining Activity

The disobedience of mining companies in reclamation and post-mining policy cannot be separated from the weak supervision so far. Whereas, the intensity of supervision will have an impact on whether or not the implementation of law enforcement is carried out. Supervision is a preventive effort to pressure mining permit holders to carry out the policies regulated in laws and regulations. Here lies the importance of fostering and supervising the management of mineral and coal mining business (Puluhulawa, 2011).

Supervision activities in the mining sector have not yet found the ideal ratio between the number of mining inspectors and the number of mining business permits that must be supervised. According to the Legal Division of the Ministry of Energy and Mineral Resources, there should be an ideal ratio of one mining inspector overseeing 5 mining permits, but what has happened so far is not balanced. For example, in East Kalimantan Province, there are only 17 mining inspectors who have to supervise 1,434 mining permits. If referring to the ideal ratio, there should be 285 mining inspectors on duty in East Kalimantan Province.

As a consequence to the issuance of mining permits, the supervision aspect in the management of the mineral and coal mining business becomes an inseparable part. Supervision is one element in management activities. Supervision in principle is carried out as a preventive effort whether or not the activities are carried out according to existing provisions (Puluhulawa, 2010). Supervision on mining business management in principle aims to make permit holders more focused on carrying out activities in a series with mining businesses, so that they do not deviate from the orders and prohibitions set out in the permit. George R. Terry's theory states that "monitoring is intended to determine what has been achieved, evaluated and to implement corrective actions if necessary, to ensure the results are in accordance with the plan" (Hamidi & Lutfi, 2009).

4. Low Public Awareness

The majority of people living around coal mining operational areas are less concerned about the non-implementation of reclamation and post-mining programs. The community has the opinion that the mining company operates with a permit from the government, so they believe the government has carried out good supervision. Many people do not know the rules that as companies carry out mining activities they are obliged to carry out reclamation and post-mining programs. It is precisely what the community hopes that the company will have concern for the community regarding the assistance needed both in physical development and incidental assistance according to the needs in the concerned area.

Based on the data and description above, it shows that mining companies do not comply with laws and regulations related to environmental aspects, even in the era of the enactment of Law Number 4 of 2009 concerning Mineral and Coal Mining until the issuance of Law Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining, there are no significant changes in data. From these conditions can be concluded that:

- a) The reclamation and post-mining programs have not been properly implemented;
- b) Not all companies are obedient and orderly in providing reports on the implementation of reclamation and post-mining programs in accordance with the laws and regulations;

- c) Not all companies comply in providing reclamation and post-mining guarantee funds;
- d) The number of mining pits left open and even without safeguards showcases the company's non-compliance in implementing the Regulation of the Minister of Energy and Mineral Resources (ESDM) Number 07 of 2014 concerning the Implementation of Reclamation and Post-Mining Programs in Mineral and Coal Mining Business Activities.

2. Strengthening Coal Reclamation and Post-Mining Law Enforcement Policies in East Kalimantan

Strengthening of law enforcement policies is urgently needed for the effectiveness of the law in regulating and/or forcing mining companies to comply with the law or the provisions of the obligation to carry out reclamation and post-mining policies. In his opinion, Soerjono Soekanto stated that “in the process of law enforcement, there are factors that influence it. These factors are quite meaningful so that the positive and negative impacts lie in the content of these factors, namely (Ishaq, 2009):

a) Legal Substance

Legal substance here includes Laws, Government Regulations, Ministerial Regulations, and even up to Regional Regulations, both Provincial and Regency-City Regional Regulations. In the practice of administering law in the field, sometimes there is a conflict between legal certainty and justice. This is because the conception of justice is an abstract formulation, while legal certainty is a normatively determined procedure. There should not be conflicting or unclear rules, either between laws or between Government Regulations or between Ministerial Regulations that can lead to multiple interpretations and serve as a justification for companies to not carry out their reclamation and post-mining obligations.

If there are conflicting regulations and/or multiple interpretations, it is required to conduct a comprehensive evaluation and revise the regulations. Therefore, in the process of forming laws and regulations, it needs to be carried out in accordance with existing provisions, starting with the study of Academic Papers which contains a systematic form starting from the background of the need to formulate the regulations, empirical theoretical and practical studies, evaluation and analysis of related laws and regulations, the basis (philosophical, sociological, and juridical), aspects of regulatory objectives, substance and scope of regulatory content.

Notes to the aspects of legislation, where in the aspect of its formation it must be ensured according to the mechanism regulated in laws and regulations starting from the stages of planning, drafting, discussing, ratifying or determining and up to the legislation. Likewise, there should be certainty in juridical, sociological and philosophical aspects, application of legal norms, use of legal principles and providing space for public opinion suggestions through public consultation mechanisms and comprehensive public examinations as well as using other public channels.

b) Legal Structure

Legal structure is concerning the parties that apply the law and include those who make up the law such as law enforcement officers, House of Representatives, Regional Representatives, Ministry of Energy and Mineral Resources, regional heads, relevant Regional Apparatus Organizations (OPD), and including officers in charge of supervision.

Independent law enforcement officers are needed in improving an effective system from upstream to downstream. In the early stages of recruitment, the coaching system to internal control requires strict mechanisms. Particularly in the aspect of supervision, the presence of sufficient number of supervisory personnel is very important. The ratio of the need for supervisory inspectors between the number of

permits and the area under supervision needs to be adjusted. Furthermore, although supervision is carried out by mining inspectors, it is also important to coordinate with supervisory officials in the environmental field under the coordination of the Regional Environmental Service. The implementation of this coordination needs to be improved, especially the object under the same supervision, that is the mining sector.

Supervision to the implementation of mining business management itself is regulated in Article 16 of Government Regulation Number 55 of 2010 concerning Guidance and Supervision of the Implementation of Mineral and Coal Mining Business Management. The supervision includes: mining technical, marketing, finance, mineral and coal data management, mineral and coal resource conservation, mining work safety and health, mining operation safety, environmental management, reclamation and post-mining, utilization of domestic technology, materials and services as well as engineering, design, and construction capabilities, development of mining technical manpower, development and empowerment of local communities, mastery of development and application of mining technology, also other activities in the field of mining business activities involving the public interest, implementation of activities in accordance with IUP, IPR or IUPK as well as supervision over the number, type and quality of mining business results. Law enforcement officers also required to have innovations in approaching companies and the community so that they can have the same view, concern and responsibility for environmental sustainability.

In the functioning of the law, it is also related to the mentality or personality of law enforcement officers who play an important role. If the regulations are good, but the quality of the officers is not good, there are still problems. Therefore, one of the keys to success in law enforcement is the mentality or personality of law enforcement, citing the opinion of J.E. Sahetapy who said: "In the context of law enforcement and implementation of law enforcement, the enforcement of justice without truth is a policy. Enforcement of truth without honesty is hypocrisy. Within the framework of law enforcement by every law enforcement agency (inclusively the manpower), justice and truth must be stated, must be felt and seen, and must be actualized" (Sahetapy, 1982).

c) Community's Legal Culture

The legal culture of the community is a very decisive factor in law enforcement in Indonesia. If public awareness towards the law is good, it will have an effect on improving law enforcement. People who are aware of the law, in addition to being obedient to existing rules, will also be an effective supervisor or control for law enforcement. The program to increase public legal awareness needs to continue to be carried out with methods that adapt to the latest trends, as well as facilitation in the formation of a law-conscious community that has access to mass media control. Then what is very important is the presence of exemplary leaders or superiors at various levels to comply with the rule of law in order to create a better legal culture of the society.

Furthermore, the community around the mining area is expected to have a concern for the environment when the mining company does not carry out the program which is its obligation. Here is the importance for every member of the community or group to have at least some knowledge on the environment and has a high awareness on the law to participate in carrying out social control to mining activities. Education for public awareness towards the law, including awareness to law of a clean and healthy environment is also very important. In the future, it is expected that the public will have increased awareness and legal compliance. The degree of compliance to the law in the community is one indicator in the functioning of the law concerned. The attitude of the people who are not aware to the duties of law enforcement officers, do not give support and even be apathetic and consider the task of law enforcement

solely a government affair, and being reluctant to get involved, can be one of the inhibiting factors in law enforcement.

d) Infrastructure and Facility

The availability of supporting facilities and infrastructure is very important in law enforcement in the mineral and coal mining sector. These supporting facilities or infrastructures include software and hardware, especially in the supervision phase carried out by mine inspectors.

Article 36 of Government Regulation No. 55 of 2010 confirms that supervision is carried out through evaluation of periodic and/or occasional reports, periodic or occasional inspections and assessment of the successful implementation of programs and activities. Technically, mining inspectors carry out inspection, investigation and testing activities and are authorized to enter the mining business activities at any time, and temporarily suspend part or all of mineral and coal mining activities if mining activities are deemed to endanger the safety of mining workers/laborers, public safety, or cause harm, pollution and/or environmental damage. In addition, the mining inspector is also authorized to propose a temporary suspension to be a permanent cessation of mineral and coal mining activities to the Chief Mining Inspector.

The supervision of environmental management, reclamation and post-mining, as stated in Article 28 Paragraph 1 of Government Regulation Number 55 of 2010, at least includes “environmental management and monitoring in accordance with environmental management documents or environmental permits that have been owned and approved. Then the arrangement of land restoration and improvement in accordance with its designation; determination and disbursement of reclamation guarantees; post-mining management; determination and disbursement of post-mining guarantees; and fulfillment of environmental quality standards in accordance with the provisions of laws and regulations”. For these tasks, certainly the support of infrastructure, mobility and technology is very much needed.

e) Technology Utilization

The development of globalization makes law enforcement increasingly complex. Potential violations need to be minimized with the use of technology (Löw, 2022). For example, the use of drones to produce valid evidence of the company's reclamation and post-mining area realization, aerial photography, and the use of softwares that can control the supervision of reclamation and post-mining implementation (Jhony & Firdaus, 2019). Therefore, it is urgent that technological renewal need to be carried out so that it becomes a complete and modern technology system that supports the acceleration and effectiveness of law enforcement for reclamation and post-mining (Zhironkin & Szurgacz, 2021).

Conclusion

East Kalimantan is an area with the largest coal mining industry in Indonesia. On the one hand, this sector contributes a high economic contribution, but on the other hand the environmental damage caused by the coal mining industry is very large. Reclamation and post-mining policies which are the obligations of mining companies are not implemented optimally due to weak law enforcement by the government. The problem of weak law enforcement is due to: (a) non-compliance by mining companies; (b) multiple interpretations and non-operational reclamation and post-mining regulations; (c) weak supervision of mining activities; and (d) low public awareness. Based on the results of the evaluation, it is necessary to strengthen policies for law enforcement on reclamation and post-coal mining in East Kalimantan through: 1) legal substance; 2) legal structure; 3) community's legal culture; 4) improvement of facilities and infrastructure; and 5) the utilization of technology.

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