

The Impact of Indonesia's Mining Industry Regulation on the Protection of Indigenous Peoples

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Abstract: The government has established various policies regarding mining in Indonesia. Still, an important question that needs to be asked is whether these policies have provided benefits, justice, and balance for indigenous and tribal peoples. This study aims to analyze the impact of Indonesian mining regulations on the protection of indigenous peoples. This is a normative legal research effort. The literature review gathers information from document analysis, which is analyzed qualitatively. Data analysis is descriptive-analytic in nature. The study results show that the impact of mining regulations still needs to reflect the recognition and protection of the rights of indigenous peoples. There is a need to improve mining management legislation and systems. Standardization of reclamation and post-mining management is required to provide implementation guidelines that meet the needs of the community. It has no negative impact on the community surrounding the mine. Licensing is one policy that can be used to implement standardization, which means keeping an eye on how the land is managed after mining, how waste is handled, and how policies are made to encourage mining and conservation activities that are good for the environment.

Keywords: Environmental; Indigenous Policy; Mining; Protection

1. Introduction

Indonesia is blessed with an abundance of natural resources. The mining industry is a vital and potentially life-saving asset for Indonesia's economy. According to data produced by the Directorate for Statistical Analysis and Development, coal would dominate the export of mining goods in 2020, with a value of \$14.53 billion. This represents 73.66 percent of total mining exports (excluding oil and gas).¹ Mining is essential for delivering quality economic growth over the next five years, as demonstrated by downstream mining development, sustainable infrastructure development, and the transformation of the

¹ Lego Karjoko and others, 'Indonesia's Sustainable Development Goals Resolving Waste Problem: Informal to Formal Policy', *International Journal of Sustainable Development and Planning*, 17.2 (2022), 649–58 <<https://doi.org/10.18280/ijstdp.170230>>.

service sector. Utilization of natural resources also contributes to the economic development of Indonesia.

However, its use frequently causes environmental harm ². Based on field observations, reclamation is not appropriate in accordance with Government Regulation Number 78 of 2010 concerning Reclamation and Post-mining in Chapter V Article 21 where it is stated that reclamation and post-mining in articles 19 and 20 must be carried out no later than 30 (thirty) calendar days after no business activities Mining on disturbed land. Because of the disturbed land area that has been declared inactive or complete, it has not been completely reclaimed in accordance with its designation where the land has been disturbed/damaged due to activities. Mining covered 31.99 hectares as of the end of 2013, while land that has been reclaimed in accordance with its designation, namely revegetation, covered only 4.64 hectares as of the end of 2013, leaving 27.35 acres unreclaimed. So that there is still land disturbed/damaged as a result of mining activities that harm the environment in the mining area.³

In addition to economic losses, the impact of mining activities can also cause social unrest that can disrupt the community. The focus of discussion in the mining sector is on economic issues in which the state and large corporations can benefit from the mining process and its outcomes. However, many aspects are frequently overlooked in the pursuit of these economic benefits ⁴. Mining has a big effect on the environment because it destroys forests, pollutes saltwater, spreads many diseases, and causes many fights between people who live in mining areas ⁵. Mining activities contribute significantly to liquid waste. In 2000, the mining and quarrying sector contributed 167.7 trillion rupiahs to Indonesia's GDP, which increased to 1,028.8 trillion in 2017. The development of the mining industry, energy, and minerals exacerbated the waste problem ⁶.

Most coal in East Kalimantan is extracted through open-pit mining ⁷. By interfering with subsurface hydrology, surface hydrology, and hydrological cycles, open-pit mining has the potential to destabilize the landscape, resulting in widespread deforestation ⁸. When mining ceases, hundreds of meters below the surface, the pits are filled with groundwater, precipitation, and runoff. A defunct mine shaft in East Kalimantan contains

² Bambang Ali Kusuma and others, 'Establishment of Indonesian Maritime Power : Regulation of Transnational Organized Crime on Illegal , Unreported , and Unregulated (IUU) Fishing', *International Journal of Criminal Justice Science*, 16.2 (2021), 251–66 <<https://doi.org/10.5281/zenodo.4756074>>.

³ Heriyansyah, 'Implementasi Peraturan Pemerintah Nomor 78 Tahun 2010 Tentang Reklamasi Dan Pascatambang (Studi Kasus Pada PT. Raja Kutai Baru Makmur Di Desa Kutai Lama Kecamatan Anggana Kabupaten Kutai Kartanegara)', *EJournal Ilmu Pemerintahan*, 3.1 (2015), 520–34.

⁴ Roger Boyd and Anastasia Ufimtseva, 'Facilitating Peaceful Rise: The Increasing Role of Geopolitics and Domestic Legitimacy in China's Energy Policy', *Energy Policy*, 158.May (2021), 112532 <<https://doi.org/10.1016/j.enpol.2021.112532>>.

⁵ Fenty U. Puluhulawa, 'Pengawasan Sebagai Instrumen Penegakan Hukum Pada Pengelolaan Usaha Pertambangan Mineral Dan Batubara', *Jurnal Dinamika Hukum*, 11.2 (2011) <<https://doi.org/10.20884/1.jdh.2011.11.2.189>>.

⁶ Kamal Hidjaz, 'Effectiveness of Environmental Policy Enforcement and the Impact by Industrial Mining, Energy, Mineral, and Gas Activities in Indonesia', *International Journal of Energy Economics and Policy*, 9.6 (2019), 79–85 <<https://doi.org/10.32479/ijeep.8146>>.

⁷ Takashi Sasaoka and others, 'Surface Subsidence Due to Underground Mining Operation under Weak Geological Condition in Indonesia', *Journal of Rock Mechanics and Geotechnical Engineering*, 7.3 (2015), 337–44 <<https://doi.org/10.1016/j.jrmge.2015.01.007>>.

⁸ Di Wang and others, 'Multi-Scenario Simulation on the Impact of China's Electricity Bidding Policy Based on Complex Networks Model', *Energy Policy*, 158.April (2021), 112573 <<https://doi.org/10.1016/j.enpol.2021.112573>>.

hazardous levels of heavy metals. In addition, researcher Cut Hilda Meutia of Greenpeace discovered that the hole contained high levels of chemicals, including magnesium, iron, aluminum, cadmium, and arsenic. When you eat or breathe in these chemicals, the effects don't happen right away. Instead, they happen over time⁹.

The Mining Advocacy Network says that there were 3,092 mining holes in East Kalimantan in 2018, and in 2020, there will be 1,735 holes that have already been dug¹⁰. Between 2014 and 2018, 115 individuals perished due to mine shafts in East Kalimantan's former coal mining regions. As Samarinda's mining expansion continued, landslides and flooding worsened. Mining has consumed 70% of the municipal land area in Samarinda. The Mining Advocacy Network and the World Wildlife Fund researched and found that the damage would cost about \$9 million¹¹. In Indonesia, the future of coal mining is also pointing to low-rank, lignite-grade coals. Because of this quality shift, the amount of tonnage mined, trucked, and barged will increase over time in order to maintain current energy-equivalent levels. Because all of these operations run on diesel, the amount of diesel consumed in mining is expected to rise, exposing the industry to volatile fuel prices¹². Open-pit nickel mining activities, preceded by land clearing, topsoil erosion, dredging, and stockpiling, have severe environmental impacts, including increased erosion rates, runoff, sedimentation, and damage to water catchment areas, as well as disruption of stability levels. Land. There could also be changes in the status of indigenous plant species and animal habitats, damage to indigenous natural resources, and a drop in the quality of the social and cultural environment and public health.¹³

Law Number 4 of 2009 concerning Mineral and Coal Mining (Minerba Law) is one of the laws related to natural resource management. The system of control and management of minerals and coal refers to Article 33, paragraph (3), of the 1945 Constitution. The natural wealth in the form of minerals and coal is controlled and managed by the state for the greatest prosperity of the people. However, none of the provisions of the Minerba Law recognize and protect the rights of MHA who live in areas rich in mineral and coal resources. North Kalimantan is one of the coal-producing areas in Indonesia and, simultaneously, an area where MHA inhabits part of the area. Minerals and coal are natural resources that are gifts from God that are used to the fullest extent possible for the prosperity of the people, especially the people living around mining areas, including, in this case, MHA, where the state and their traditional rights recognize MHA through the

⁹Fitri Nur, Aini Prasetyo, and Abdul Kadir Jaelani, 'The Changing of Environmental Approval Administrative Law Perspective', *Journal of Human Rights, Culture and Legal System*, 2.3 (2022), 191–208 <<https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>>.

¹⁰Budiman and Abdul Kadir, 'The Policy of Sustainable Waste Management Towards Sustainable Development Goals', *Journal of Human Rights, Culture and Legal System*, 3.1 (2023), 70–94 <<https://doi.org/https://doi.org/10.53955/jhcls.v3i1.73>>.

¹¹Fatma Ulfatun Najicha, 'Oil and Natural Gas Management Policy in Realizing Equal Energy in Indonesia', *Journal of Human Rights, Culture and Legal System*, 1.2 (2021), 2807–12 <<https://doi.org/10.53955/jhcls.v1i2.8>>.

¹²Richard Dutu, 'Challenges and Policies in Indonesia's Energy Sector', *Energy Policy*, 2016, 513–19 <<https://doi.org/10.1016/j.enpol.2016.09.009>>.

¹³Willy Naresta Hanum, 'Setting of Earth Oil Management in Old Wells Based on the Principle Social Justice', *Bestuur*, 8.2 (2020), 70 <<https://doi.org/10.20961/bestuur.v8i2.42789>>.

constitution. This shows the state's or government's inconsistency towards recognizing, respecting, and protecting MHA's rights to natural resources.¹⁴

Still, because of Decree-Law No. 32 of 2009 on Environmental Protection and Management and Law No. 24 of 2007 on Disaster Management, the state cannot ignore the problem of too many mining licenses that damage the environment and cause disasters¹⁵. Based on Article 82 of the Environmental Protection and Management Act as revised by the Job creation law, it regulates the Central Government's ability to compel the head of a company to perform environmental restoration in response to environmental pollution and damage. The mining industry has complex effects on both the environment and social life. Ecological degradation frequently results from development activities, diminishing the quality of the environment and endangering human survival. Undoubtedly, the existence of difficulties related to the effects of mining contributes to community unrest. As the legal basis for the mining activity licensing system, Environmental impact analysis will be very important to Indonesia's efforts to protect and manage the environment¹⁶. The obligation to comply with regulations in the mining sector is a legal consequence that every mining company must accept. Any company that obtains a mining permit must develop a plan for the environmental impact of reclamation and post-mining. However, based on the realization and facts that occur in the mining industry, many mining business actors are negligent in performing post-mine reclamation or reclamation is not done as it should be.

When trying to protect the environment, it's important to look at the effects on the environment so that conditions that are good for long-term growth can be kept¹⁷. Because of this, it is important to do a thorough study of how to restore the environment after mining so that sustainable and environmentally sound environmental management can be done best.¹⁸ This research aligns with the SDGs' ecological development pillars, namely the attainment of clean and affordable energy that promotes human well-being. Sustainable management of affordable, environmentally friendly energy that sustains all life. Environmental sustainability is primarily intended to convey to future generations that sustainable development is a global priority that serves as the foundation for achieving community welfare objectives. The cumulative effects of mining activities can affect how the public views the mining company's presence. So, it's important to figure out how much the mining will hurt the economy, the environment, and the social life of the people who live in the area.

Mining management policies must be directed in this regard to minimize the emergence of chaos. Mining activities that use land may or may not yield benefits, support

¹⁴ Hilaire Tegan and Lego Karjoko, 'Mining Corruption and Environmental Degradation in Indonesia: Critical Legal Issues', 9.2 (2021), 90–100 <<https://doi.org/https://dx.doi.org/10.20961/bestuur.v9i2.55219>>.

¹⁵ I. Gusti Ayu Ketut Rachmi Handayani and others, 'Environmental Management Strategy in Mining Activities in Forest Area Accordance with the Based Justice in Indonesia', *Journal of Legal, Ethical and Regulatory Issues*, 21.2 (2018).

¹⁶ David Aprizon Putra, 'Eksistensi Sistem Hukum Perizinan Kegiatan Pertambangan Dalam Otonomi Daerah Sebagai Salah Satu Instrumen Hukum Hak-Hak Masyarakat', *Jurnal Legality*, 24.1 (2016), 16.

¹⁷ Muhammad Yaasiin Raya and Irwansyah, 'Analisis Kewajiban Deposito Sebagai Jaminan Reklamasi Dan Pasca Tambang', *Papua Law Journal*, 1.2 (2017), 223.

¹⁸ Fernando Tormos-Aponte, Gustavo García-López, and Mary Angelica Painter, 'Energy Inequality and Clientelism in the Wake of Disasters: From Colorblind to Affirmative Power Restoration', *Energy Policy*, 158.August (2021) <<https://doi.org/10.1016/j.enpol.2021.112550>>.

environmental sustainability, and social justice, depending on land management policy. Government policy is required for the development and implementation of national procedures and appropriate strategies for environmental management implementation. In addition, monitoring must be performed on every mining operation in order to minimize the resulting impacts and reduce illegal mining fraud. In order to ensure the survival of a community, business actors are required to pay more attention to environmental and community conditions in addition to improving government policies. According to the information given, there are still a lot of abandoned mining pits whose cleanup and use after mining do not meet government standards.¹⁹

On the one hand, the presence of mineral and coal mines in the MHA area increases state and regional revenues, absorbs labor, and opens business opportunities as a partner for mineral and coal mining companies. The mineral and coal mining areas are in rural areas where MHA lives. Impacts Coal mining has also caused considerable environmental damage, be it to air, land, air, or forests, which ultimately harms the communities around the mining area. Structural poverty occurred systematically in indigenous and tribal peoples near coal mines as a result of the New Order government's choice of ideological mastery and use of paradigms, as well as the management of natural resources built and used during the New Order, even up to the Reform Order. This shows that the principles of mineral and coal mining management based on the Minerba Law have favored indigenous peoples only when the mining area is on customary land.²⁰

Fitri Ramdhani previous research on post-mining land restoration revealed that the damage caused by tin mining has increased, especially with the advent of unconventional mining.²¹ The reclamation of mined land is well-planned and executed to achieve the best results. While restoration is defined as an attempt to repair or restore degraded land to its original condition. Afidah Nur Rizki and Amrie Firmansyah evaluated Indonesia's reclamation and post-mining environmental responsibilities, meanwhile. From 2015 to 2018, five mining companies put the costs of their environmental responsibilities for reclamation and post-mining (CaLK) in their annual financial statements and notes to consolidated financial statements.²² This study aims to analyze the impact of indonesia's mining industry regulation on the protection of indigenous peoples. This research is crucial because the impact of mining sector regulation has not yet favored Indigenous Peoples. Ultimately, the legal principles of mining management are related to expediency, fairness, balance, alignment with the nation's interests, participation, transparency, and accountability; indigenous peoples' rights have not been safeguarded by sustainability and environmental soundness. Indigenous people don't get the most out

¹⁹ Chi Wei Su and others, 'Does Renewable Energy Redefine Geopolitical Risks?', *Energy Policy*, 158.May (2021), 112566 <<https://doi.org/10.1016/j.enpol.2021.112566>>.

²⁰Citra Tiurmasari and Retta Siagian, 'The Political Structure of Indonesia ' s Regulation to Protection Customary Forest', *Journal of Human Rights, Culture and Legal System Vol.*, 3.1 (2023), 95–133 <<https://doi.org/https://doi.org/10.53955/jhcls.v3i1.72>>.

²¹ Fitri Ramdhani Harahap, 'Restorasi Lahan Pasca Tambang Timah Di Pulau Bangka', *Society*, 4.1 (2016), 61–69 <<https://doi.org/10.33019/society.v4i1.36>>.

²² Afidah Nur Rizki and Amrie Firmansyah, 'Kewajiban Lingkungan Atas Reklamasi Dan Pasca Tambang Pada Perusahaan Sektor Pertambangan Di Indonesia', *Ekombis Sains: Jurnal Ekonomi, Keuangan Dan Bisnis*, 6.1 (2021), 37–54 <<https://doi.org/10.24967/ekombis.v6i1.1117>>.

of how minerals and coal are mined, and negative effects are felt not only by this generation but also by generations to come.

2. The Impact of Indonesia's Mining Industry Regulation on the Protection of Indigenous Peoples

The law is a way to control how people act so that the goals of national development, such as a fair society, can be reached, and because the state is required to carry out national law development, a law must start with planning and end with promulgation to be done right²³. In the supervision of businesses, stakeholders play an important role, resulting in corporate governance²⁴. Ecosystem management is a scientific approach to environmental management that focuses on the basic structures, functions, processes, and interactions of species with their environment. This method's primary objective and benchmark is ecosystem-based management that is effective in specific regional locations. Utilizing a regional environmental management plan and Strategic Environmental Studies can accomplish this. The obligation to exercise caution is also reflected in the requirements that exploration contract applicants must meet. Prior to the commencement of exploration, the contract applicant must submit a preliminary assessment of how the proposed exploration activity may impact the environment²⁵.

The resolution of environmental cases has not been environmentally friendly. The judge hasn't thought about how the victims' actions might affect the environment. He hasn't taken an ecosystem-based approach, and he hasn't planned for activities that might pollute or damage the environment to start²⁶. In order to improve environmental conditions, there should be campaigns to increase environmental awareness among numerous stakeholders. Numerous businesses and activities that produce waste during the manufacturing process have undeniably negative environmental effects. The extraction of natural resources is always accompanied by a deterioration of the environment. Obviously, this is extremely alarming if corrective action is not taken immediately.²⁷ Law No. 32 of 2009 on the Protection and Management of the Environment says that natural resources and environmental functions must work together in harmony and balance. Law Number 32 of 2009 on Environmental Protection and Management establishes more comprehensive rules than the previous law as a result of the refinement of prior environmental management legislation. As a result of this agreement, a strategy, plan, and program based on a development obligation for environmental preservation and aimed at achieving sustainable development must be developed. Environmental problems are caused by development that doesn't take into

²³Paul Atagamen, 'Environmental Hazard : The Legal Issues Concerning Environmental Justice in Nigeria', *Journal of Human Rights, Culture and Legal System*, 3.1 (2023), 17–32 <<https://doi.org/https://doi.org/10.53955/jhcls.v3i1.60>>.

²⁴Robin Warner, 'International Environmental Law Principles Relevant to Exploitation Activity in the Area', *Marine Policy*, 114.May 2018 (2020), 103503 <<https://doi.org/10.1016/j.marpol.2019.04.007>>.

²⁵Pane Erina and Adam Muhammad Yanis, 'Reconstruction of Mining Policies on Justice in Lampung Province', *Bestuur*, 8.2 (2020), 139 <<https://doi.org/10.20961/bestuur.v8i2.42830>>.

²⁶Jarot Digdo Ismoyo, 'The Model of Management of the Masela Block Based on People's Welfare in Maluku', *Bestuur*, 8.2 (2020), 84 <<https://doi.org/10.20961/bestuur.v8i2.42858>>.

²⁷Laurensius Arliman S, 'Eksistensi Hukum Lingkungan Dalam Membangun Lingkungan Sehat Di Indonesia', *Jurnal Ilmu Hukum*, 5.1 (2018), 761–70 <<https://doi.org/10.5281/zenodo.1683714>>.

account ecological balance. This leads to environmental degradation and pollution²⁸. Although the regulation regarding aspects of protection and environmental management is adequate on paper, in practice, aspects of environmental protection and management life are one of the triggers for conflicts, both vertical and horizontal.

Disputes arising from environmental protection and management, among other things, are caused by the mineral and coal industries lack the necessary environmental protection and management documents. In this case, the miners do not only lack environmental protection and management documents²⁹, but they also lack mining permits, as well as Mining Business License (IUP), Special Mining Business License (IUPK), and People's Mining Permit (IPR) ownership. Furthermore, mining actors have required living environment protection and management documents, but the manufacturing of documents is materially flawed. Manipulation of involvement occurs Environmental impact analysis in the preparation of Environmental impact analysis in these cases. There are also business activities that are in accordance with all provisions of laws and regulations, but their implementation has environmental consequences that have a noticeable impact on the comfort of the people around the mining.³⁰

Sustainable development must be incorporated into environmentally responsible mining management. When wealth and the welfare of the people are considered, natural resource management is sustainable. Moreover, problems arise from the institutional aspect and the implementation of laws and regulations. Conflicts and disagreements hurt the community, the environment, and the quality of natural resources.³¹ The ecological and environmental harm caused by mining is irreparable on a small scale.³² Ecological restoration efforts can be expedited if the effects of mining activities are not adequately addressed. It is hard to do a negative impact assessment in a timely and effective way so that a good decision can be made about ecological restoration.³³ Global studies of environmental damage assessment are conducted to determine the intensity and spatial distribution of pollution, human activities, and geological hazards.³⁴ In mining regions, the intensity of ecological and environmental damage varies spatially. Several factors, such as geological hazards and land use types, have a cumulative effect on it. The rate of environmental restoration and repair is slower than the rate of damage and pollution

²⁸Suwari Akhmaddhian, 'Discourse on Creating a Special Environmental Court in Indonesia to Resolve Environmental Disputes', *Bestuur*, 8.2 (2020), 129–38 <<https://doi.org/10.20961/bestuur.v8i2.42774>>.

²⁹ Wahyu Nugroho, 'Persoalan Hukum Penyelesaian Hak Atas Tanah Dan Lingkungan Berdasarkan Perubahan Undang-Undang Minerba', *Jurnal Hukum Ius Quia Iustum*, 27.3 (2020) <<https://doi.org/10.20885/iustum.vol27.iss3.art7>>.

³⁰ Ahmad Redi, 'Dilema Penegakan Hukum Penambangan Mineral Dan Batubara Tanpa Izin Pada Pertambangan Skala Kecil', *Rechts Vinding*, 5.3 (2016), 399–417 <<https://doi.org/http://dx.doi.org/10.33331/rechtsvinding.v5i3.152>>.

³¹ Erina and Yanis.

³² Neele Larondelle and Dagmar Haase, 'Valuing Post-Mining Landscapes Using an Ecosystem Services Approach - An Example from Germany', *Ecological Indicators*, 18 (2012), 567–74 <<https://doi.org/10.1016/j.ecolind.2012.01.008>>.

³³ Huping Hou and others, 'Spatial Estimate of Ecological and Environmental Damage in an Underground Coal Mining Area on the Loess Plateau: Implications for Planning Restoration Interventions', *Journal of Cleaner Production*, 287 (2021), 125061 <<https://doi.org/10.1016/j.jclepro.2020.125061>>.

³⁴ Safoura Saedpanah and Jamil Amanollahi, 'Environmental Pollution and Geo-Ecological Risk Assessment of the Qhorveh Mining Area in Western Iran', *Environmental Pollution*, 253 (2019), 811–20 <<https://doi.org/10.1016/j.envpol.2019.07.049>>.

caused by mining activities.³⁵ Damage to mining activities requires recovery costs as stated in the Table 1.

Table 1. Total cost of environment maintenance by kind of mineral

Types of mining and minerals	2017	2018	2019	2020
Coal	1859112	1122114	3832823	4434536
Bauxite	5872	12994	140249	6280
Nickel Ore	147610	104948	525141	671722
Gold	338708	38397	78732	70696
Iron Sand	16602	31963	1695	-
Copper Concentrate	1 388 758	641685	1650337	3747586
Tin	13706	14504	49410	90069
Total	3770369	1966605	6278386	9020889

Sources: Central Bureau of Statistics, 2021.

There are differences in recovery costs for each type of mine. It is known that there has been an increase in environmental recovery funds due to damage to mining activities in line with the year in 2019 which increased more than (the difference between 2019-2018). In 2018, it was 1966605, then in 2019, it was 6278386, and it will rise again in 2020 to 9020889. Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management says that anyone who has an environmental approval permit must set up a guarantee fund to restore ecological functions. On the ground, however, IUP/IUPK owners continue to break the law by using natural resources in ways that aren't allowed by their designation. IUP/IUPK holders are obligated to apply sound mining engineering principles in accordance with mining regulations that aid the government in regional development, mining safety, environmental management, and community empowerment. Environmental management efforts necessitate the existence of policies that enhance the implementation of every mining operation. Due to the nature of mining's impact on the environment, mining law is a multidimensional field of study. In addition to serving as a means of protection and providing certainty for the community, mining law also serves as a means of development, whose role is as an agent of outcome or change. Law Number 3 of 2020 represents a paradigm shift in state control over minerals and coal mining, as it concentrates all authority on the central government, including the authority to issue mining permits that have implications for the management of the local government.

Mining activities have the potential to alter an area's ecosystem due to their ability to clear land and alter landscape conditions. Mining activities have an impact not only during the mining process but also after mining is complete, or what is commonly known as post-

³⁵ Zhi Yang and others, 'Assessment of Eco-Geo-Environment Quality Using Multivariate Data: A Case Study in a Coal Mining Area of Western China', *Ecological Indicators*, 107.August (2019), 105651 <<https://doi.org/10.1016/j.ecolind.2019.105651>>.

mining. When they stopped mining, some companies weren't responsible for the holes they left behind, which could cause long-term damage to the environment. It has been acknowledged that the mining industry has the potential to continue to expand rapidly and generate substantial profits. Alongside the expansion of civilization and human progress, regulation is required to encourage the mining industry to maximize its operations while minimizing negative effects to the greatest extent possible. The fact that local governments continue to have limited space under Law No. 3 of 2020 raises numerous legal concerns regarding the legal advantages of this legal reform. Article 2 of Law No. 4 of 2009 outlines the legal concept of a benefit. The definition of the benefit principle aligns with Jeremy Bentham's concept of legal benefit, which states that the law must provide benefits or advantages for many individuals. The two rules are basically the same, which makes the public worry about arrangements that overlap and hurt mining activities and can't give legal certainty.

However, the revision of the Minerals and Coal Law sparked debate. ICEL (Indonesian Center for Environmental Law) is one of many parties that has criticized the Mineral and Coal Bill (draft as of May 11) in greater detail through a scientific analysis published in the press. ICEL's research focuses on issues such as: a) the division of authority between central and local governments; b) territory determination and licensing; c) supervision; d) recovery; and e) law enforcement³⁶. The conflicting norms of the Mineral and Coal Law and the Local Government Law resulted in difficult legal practice. Although the Local Government Law states in 407 that when the Local Government Law takes effect, all laws and regulations directly related to the regions must be based on and adjusted to the Local Government Law. In practice, however, changes in licensing, coaching, and supervisory authority can lead to PETI.

Mining activities cause numerous legal issues. There is a mining dispute of both type and form, namely a dispute between the government and investors, a dispute between the central government and local governments, a dispute between legal entities and communities surrounding the mine. The purpose of environmental law enforcement is to organize environmental functions and safeguard ecosystem-carrying capacity values. Parties who have not completed reclamation and post-mining according to the criteria outlined in the law must be subject to legal action. Supervision is a form of law enforcement that needs to be strengthened to make sure IUP/IUPK holders are living up to their responsibilities. So far, no one has broken the law³⁷.

According to the 1945 Constitution of the Republic of Indonesia, the right to control the state must be viewed in the context of the state's rights and responsibilities as the owner of power charged with promoting the welfare of the people. The position of the state as the governing body, the holder of that power, is the embodiment of the understanding of the pattern of relations between individuals and society in the conception of customary law, whose values are crystallized in the Preamble of the 1945 Constitution of

³⁶ Ayu Kholifah, 'Menakar Perlindungan HAM Dalam Revisi UU Minerba Melalui UN Guiding Principles on Business and Human Rights', *Jurnal Justisia : Jurnal Ilmu Hukum, Perundang-undangan Dan Pranata Sosial*, 6.1 (2021), 26 <<https://doi.org/10.22373/justisia.v6i1.10610>>.

³⁷ Mohammad Jamin and Abdul Kadir Jaelani, 'Legal Protection of Indigenous Community in Protected Forest Areas Based Forest City', *Bestuur*, 10.2 (2022), 198–212 <<https://doi.org/https://dx.doi.org/10.20961/bestuur.v10i2.66090>>.

the Republic of Indonesia, so that the right to control the state includes the right to exercise the rights and obligations that give rise to power, authority, and eminence. Consequently, the concept of the right to control the state refers to the authority possessed by the state, which regulates, plans, manages, and oversees the management, use, and utilization of land in the relationship between individuals, communities, and the state with the land, as well as in the relationship between individuals, communities, and the state with one another in relation to the land.

The rights of MHA in managing mineral and coal resources have a broad scope, encompassing not only the right to manage their natural resources but also the right for MHA to obtain legal protection in exercising these rights, thereby ensuring their survival. By making the issue of MHA's rights in the management of mineral resources a matter of justice, it can be argued that MHA has the right to manage natural resources or at least obtain benefits that can improve its standard of living, and it is the responsibility of the state to ensure that this occurs. However, MHA is frequently overlooked when interacting with the state. For reasons of national interest, the state gives precedence to their control rights in managing mineral and coal resources over MHA's rights. Due to poverty and lack of education, it is difficult for them to defend their rights.

The weak political position of MHA in comparison to investors and the government facilitates the government's easy seizure of natural resources without due process or even compensation. The rights that were violated included the right to property, the right to adequate food and nutrition, the right to an adequate standard of living, the right to participate in cultural life, the right to self-determination, and the right to enjoy the highest achievable standard of physical and mental health. mental rights, along with numerous other rights. According to Daes, a common problem faced by MHA regarding their rights to natural resources is the failure or reluctance of the state or government to recognize the rights of MHA to land, territories, and natural resources; laws and discriminatory policies that affect indigenous peoples regarding their lands and natural resources; the failure or reluctance of the state or government to set boundaries for customary lands; and the failure or reluctance of the state or government to recognize the boundaries of customary lands³⁸.

3. Protected Indigenous Community Impact of Mining Industry in Indonesia

The mining products are extracted from the overburden. Thus, the overburden is removed from the mining region, leaving only the dug holes. This hole must be filled as part of post-mining and reclamation efforts. Companies that have valid mining business licenses have to fill in holes they dig while doing their work. The Minerals and Coal Law No. 3 of 2020 regulates reclamation responsibilities for IUP and IUPK holders. In addition, the responsibilities for carrying out reclamation are governed by Government Regulation 78 of 2010 concerning Reclamation and Post-mining. Assume that the reclamation of the IUP/IUPK holder does not meet the success conditions. In such a case, the government may appoint a third party to conduct reclamation or post-mining operations using

³⁸ Fatma Ulfatun Najicha and others, 'The Conceptualization of Environmental Administration Law in Environmental Pollution Control', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 87–99 <<https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>>.

taxpayer funds. Article 1 of Law 32 of 2009 on Environmental Protection and Management defines environmental protection and management as efforts to keep the environment's functions and prevent pollution and ecological damage caused by environmental degradation³⁹.

This includes planning, implementing, regulating, maintaining, supervising, and enforcing the law. Reclamation is a process that entails improving the physical state of the soil to prevent landslides; constructing reservoirs to improve the quality of toxic acid mine drainage; and reforesting the area. The objective of reclamation and post-mining activities is to restore the environment to its condition prior to mining. Several stages must occur in order to successfully implement reclamation and post-mining, including the application for a permit to manage the reclamation and post-mining plans; approval of the reclamation and post-mining program's performance; and modifications to the reclamation and post-mining plans. In addition to being required to perform reclamation and post-mining activities, mining companies must also post a guarantee. Still, some businesses think that setting up a guarantee fund means that they don't have to do reclamation and other activities after mining⁴⁰.

Environmental changes, such as chemical, physical, and biological differences, are the primary cause of concern in the former mine area. The environmental impact of mining is primarily the result of the extraction and disposal of rock waste, the processing of ore, and the operations of processing plants. The environment is significantly altered by mining. Consequently, we require a plan that is mature and adheres to the criteria outlined for the closure of former mining pits. The plan for post-mining land use must be followed by progressive mine rehabilitation activities. Financing for reclamation and post-mining guarantees will be achieved at a rate of 93.42 percent for reclamation guarantees and 92.68 percent for post-mining guarantees in 2020⁴¹.

According to the records of the Directorate General of Minerals and Coal at the Ministry of Energy and Mineral Resources, as of June 2018, 60% or approximately 1,569 IUP (Mining Business Permit) holders from PMDN (Domestic Investments) did not provide reclamation guarantee funds⁴². The Ministry of Energy and Mineral Resources reported in 2019 that 2,966 companies out of a total of 4,867 had placed new reclamation guarantees. The remainder, approximately 1,901, do not have a contract. Then, 4,655 out of 4,867 businesses are IUP PMDN businesses, of which 2,760 have placed reclamation guarantees and 1,895 have not⁴³. In 2020, according to the Mining Advocacy Network, 3,092 mine pits remained unreclaimed. In addition, Indonesia has 11 steam power plants and 104 mineral and coal mining concessions covering an area of 1,6 million hectares,

³⁹ Abdul Kadir Jaelani and Muhammad Jihadul Hayat, 'The Proliferation of Regional Regulation Cancellation in Indonesia', *Journal of Human Rights, Culture and Legal System*, 2.2 (2022), 121–38 <<https://doi.org/https://doi.org/10.53955/jhcls.v2i3.55>>.

⁴⁰ Sarita Oktorina, 'Kebijakan Reklamasi Dan Revegetasi Lahan Bekas Tambang (Studi Kasus Tambang Batubara Indonesia)', *Al-Ard: Jurnal Teknik Lingkungan*, 4.1 (2018), 16–20 <<https://doi.org/10.29080/alard.v4i1.411>>.

⁴¹ Anisatul Umah, 'Ribuan Lubang Tambang Tak Direklamasi? Begini Data ESDM', *CNBC Indonesia*, 2021.

⁴² N. Zakiyyatul Mufidah and Miftachur R. Habibi, 'Simposium Hukum Indonesia', *Simposium Hukum Indonesia*, 1.1 (2019), 574–86.

⁴³ Sam, 'Ribuan Perusahaan Tambang Belum Setor Dana Jaminan Reklamasi Dan Pascatambang', *Eksplorasi.Id*, 2019.

which is roughly half the size of Belgium⁴⁴. By leaving many mining pits improperly managed and unclosed, many companies fail to meet their obligations for reclamation and post-mining activities. It resulted in numerous deaths.

The post-coal mining pit in East Kalimantan led to the sinking of the community; between 2011 and 2018, 32 people, the majority of whom were children, died. Nationally, 115 individuals drowned in abandoned mine pits between 2014 and 2018⁴⁵. One of the coercive measures used to address an issue is the imposition of sanctions against mining business operators who fail to fulfill their obligations. This is because the legislative mandate necessitates the existence of coercive consequences or punishments⁴⁶. Environmental management from an ecological perspective must be governed by legal standards and take into account the level of public awareness and action in the global environment, as well as applicable international legal instruments. In order to achieve the goals of environmentally sustainable development, it is still necessary to refine the general concept of sound environmental management⁴⁷. In numerous laws and regulations, the terminology, principles, scope, and procedure for implementing Social and Environmental Responsibility have not been uniform. This is because different rules use different words to talk about Corporate Social Responsibility (CSR) requirements.

The corporation is liable for any negative effects caused by mining activity. This includes environmental degradation, post-mining development, climate change, and the living conditions of affected communities in mining areas. Downstream strategies must be optimized by transforming raw materials into a secondary product with a higher value-added—mining. The downstream orientation of Indonesia's industrial sector has an effect on the innovative potential of the region's economy. This industry's downstream is the optimal strategy for the nation. Also, the use of space in sectoral programs includes putting mining areas back to how they were before they were mined. This is done so that the welfare of the community and the environment are not put at risk⁴⁸. The true problem has existed for a long time and frequently manifests in the Minerva Law, specifically in management. Prior to 2018, 123 mining companies had exploration and exploitation permits in Indonesia. In addition to corporations with keys, numerous mining companies lack tickets (illegal). In Indonesia, the Ministry of Environment and Forestry identified 8,683 instances of illegal mining spanning 500 hectares (Ha)⁴⁹.

Therefore, immediate action is necessary to resolve these problems. According to the mining strategy, the mining operation's negative effects must be mitigated in stages. Previous mining operations necessitated rapid reclamation. Naturally, Environmental impact analysis will be used to control and monitor the system at this time. Environmental impact analysis can be used as a guide when determining whether to engage in mining

⁴⁴ Anisatul Umah, '814 Lubang Tambang Di Kalses Disebut Tak Direklamasi, Serious?', *CNBC Indonesia*, 2020.

⁴⁵ Zulkifli, 'Sexy Killers, Film Yang Mengungkap Sisi Lain Penambangan Batu Bara Di Kalimantan Timur', *Kompasiana*, 2019.

⁴⁶ Ade Lutfi Prayogo, 'Tanggung Jawab Pelaku Usaha Pertambangan Rakyat Dalam Reklamasi Gumuk Setelah Kegiatan Tambang', *Lentera Hukum*, 5.3 (2018), 424 <<https://doi.org/10.19184/ejrh.v5i3.8201>>.

⁴⁷ Siswanto Sunarso, *Hukum Pidana Lingkungan Hidup Dan Strategi Penyelesaian Sengketa* (Jakarta: PT Rineka Cipta, 2005).

⁴⁸ Kajsá Ganhammar, 'The Effect of Regulatory Uncertainty in Green Certificate Markets: Evidence from the Swedish-Norwegian Market', *Energy Policy*, 158 (2021), 112583 <<https://doi.org/10.1016/j.enpol.2021.112583>>.

⁴⁹ Tormos-Aponte, García-López, and Painter.

activities and as a prerequisite for obtaining a business license. In practice, however, Environmental impact analysis environmental feasibility study guidelines may not always produce the best results. The ecological permit system is linked to the need to make an Environmental impact analysis, which must be done before a business activity permit can be given. According to the presented data, reclamation and post-mining activities continue to face a number of obstacles and disregard environmental concerns. Consequently, the government and numerous stakeholders must take measures to mitigate the negative effects of mining activities. Management and environmental sustainability must coexist in order to achieve sustainable and environmentally friendly development. The principles and requirements of safe mining are applied to reclamation and post-mining activities. In addition to the execution difficulties, the placement of reclamation and post-mining guarantee funds continues to be abhorrent. Numerous mining companies continue to disregard the distribution order of guarantee funds. This structure for the guarantee fund makes sense because compliance with post-mining recovery is low in practice because there isn't enough oversight and there are other problems with the way mining is run.⁵⁰

Additionally, the state will incur losses in terms of company licenses and tax revenue, and illegal mining operations can wreak havoc on the ecosystem. Consequently, it is necessary to simplify the licensing procedure in order to make it less complicated and burdensome for mining company actors while still adhering to existing standards. Coordination between the federal and local governments in the resolution of business licensing issues is one of the legal measures that can be taken. Notably, the federal government and local governments must oversee the issuance of permits and the execution of mining activities. This will eventually coincide with the government's and mining companies' data and information accessibility to the community. A computerized system is needed to turn manual data entry into digital information that can be stored in a geographical database. This makes it possible to look at mining permits that used to overlap.

The establishment of a standard for reclamation and post-mining management is one of the measures that can be taken to address environmental concerns in mining regions, particularly those related to reclamation and post-mining management. Several abandoned mine pits continue to necessitate a policy strengthening the government's role in monitoring, assessing, and evaluating reclamation and post-mining implementation, according to field data. When it comes to environmental management, all decisions must adhere to a set of standards. Environmental standardization must be accompanied by stringent performance requirements and effective data utilization. Standardization will be implemented for company licensing, reclamation, and post-mining operations.

The guarantee funds will be managed with greater transparency and allocated according to their intended purpose. The federal government hopes that by standardizing reclamation and post-mining management, it will be able to strengthen oversight of guarantee fund placement in collaboration with local governments. It is essential to strengthening law enforcement against parties that have not complied with the law's

⁵⁰ Ilyas, Anshori, and Hamzah Hamzah. "Administrative Land Conflicts and Reforming State-Owned Enterprises in Indonesia." *Hasanuddin Law Review* 8, no. 2 (2022): 186-193 < <http://dx.doi.org/10.20956/halrev.v8i2.2362>>..

reclamation and post-mining standards, as outlined in Article 4 paragraph 2 and Article 35 paragraph 4 of Law No. 3 of 2020.⁵¹ According to Article 4 paragraph 2 of Law No. 3 of 2020, the Central Government is responsible for State Control of Minerals and Coal, as defined in paragraph (1), in accordance with the terms of this Law. While Article 35 paragraph 4 of Law No. 3 of 2020 specifies that the Central Government may delegate to the provincial regional government the authority to award business licenses, as defined in paragraph (2), in accordance with the provisions of the law, the provincial regional government may not delegate this authority to the Central Government.

In order to standardize reclamation and post-mining management, it is necessary to establish regulations governing management practices, management systems, reporting, and oversight of reclamation and post-mining implementation. Standardization will be an improvement over the current practice of setting environmental permits under the control of the Environmental impact analysis. A reclamation strategy should be in place in advance of mining operations, and land should be reclaimed in a planned manner. The policies can begin with licensing, oversight of post-mining land and waste management, and the creation of legislation that encourages green mining and environmental conservation. Standardizing reclamation and management after mining is thought to help lessen the damage to the environment.

4. Conclusion

Mining operations are extremely intricate and hazardous. Each organization must implement reclamation and post-mining procedures. Nonetheless, the evidence presented suggests that reclamation and post-mining management are not yet optimal. Numerous open-pit mines continue to exist, causing pollution, land degradation, and even death. In addition, the company should create a fund for reclamation and post-mining guarantees. Nonetheless, numerous businesses continue to operate without a guarantee fund. Obviously, this poses a problem for Indonesia in terms of enforcing environmental laws in the mining industry. It is necessary to increase enforcement against those who do not comply with the reclamation and post-mining requirements of the law. Thus, a legal regulation can establish a law for any abuse of authority, violation of company commitments, and excellent environmental management by implementing environmentally sound and sustainable mining techniques. However, the revision of the Minerals and Coal Law sparked debate. To achieve sustainable development is necessary a number of policies, such as licensing, overseeing land management after mining, waste management, and creating laws that encourage green mining and protect the environment.

⁵¹ Arifin Maruf, 'Legal Aspects of Environment in Indonesia: An Efforts to Prevent Environmental Damage and Pollution', *Journal of Human Rights, Culture and Legal System*, 1.1 (2021), 2807–12 <<https://doi.org/10.53955/jhcls.v1i1.4>>.

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