

ENVIRONMENTAL SOVEREIGNTY IN MINERAL AND COAL MINING GOVERNANCE IN INDONESIA

Indonesia's minerals and coal have been exploited for centuries. Pursuant to the mandate of Article 33, paragraph (3) of the 1945 Constitution, minerals and coal are controlled by the state and must be utilised for the greatest prosperity of the people. Their governance must be conducted based on the principles of sustainability and environmental insight, as stipulated in Article 33, paragraph (4) of the Constitution. While these dual principles are articulated in normative terms and in licensing contracts, they face significant hurdles at the implementation level, and high-quality reclamation remains scarce. The primary objective of this study is to reinforce, affirm, and advocate for environmentally-conscious mining practices. Law exists for humanity, not vice versa; thus, mining law must humanise individuals, honour the environment, and realise public welfare. This research employs a normative legal method with a statutory approach. The findings: First, the implementation of anthropocentrism and sustainable development in the mining sector has predominantly favoured economic growth at the expense of environmental protection. Second, the post-amendment 1945 Constitution has evolved into a "green constitution" that embraces environmental sovereignty. Third, the norm of environmental sovereignty is manifested within 41 provisions of the Mineral and Coal Mining Law. Fourth, there are inherent weaknesses in the formulation of criminal provisions. Moving forward, the mining sector must shift its paradigm from sustainable development to ecological sustainability, and from anthropocentrism to ecocentrism. Environmental sovereignty regulations must be consistently enforced, supported by the formulation of mining criminal provisions prioritising environmental protection.

Keywords: Environmental Sovereignty, Mining Governance, Mineral and Coal

INTRODUCTION

According to the Ministry of Forestry Decree Number 406 of 2025, the total area of degraded land in 2024 reached 12,294,321 hectares (twelve million two hundred and ninety-four thousand three hundred and twenty-one hectares). This figure comprises 7,094,277 hectares (seven million ninety-four thousand two hundred and seventy-seven hectares) located within forest areas and 5,200,044 hectares (five million two hundred thousand and forty-four hectares) outside forest areas.

One of the primary causes is environmentally unfriendly mining activities, both legal and, more significantly, illegal. Not all mining permit holders are committed to fulfilling their reclamation and post-mining obligations. In September 2025, the Ministry of Energy and Mineral Resources, through the Directorate General of Mineral and Coal Letter Number T-1533/MB.07/DJB.T/2025, imposed temporary suspension sanctions on 190 mining companies regarding their obligations to guarantee post-mining reclamation activities. These companies are located across West Sumatra, South Sumatra, Bengkulu, Jambi, Riau, Riau Islands, Lampung, West Kalimantan, South Kalimantan, East Kalimantan, Central Kalimantan, Gorontalo, North Maluku, West Nusa Tenggara, East Nusa Tenggara, South Sulawesi, Central Sulawesi, Southeast Sulawesi, and finally, the Bangka Belitung Islands. Among them are 14 mineral mining companies from the "Negeri Serumpun Sebalai" (Bangka Belitung). This temporary suspension illustrates the grim reality of our mining sector, which frequently echoes the rhetoric of "green mining" yet remains silent when held accountable for reclamation mandates. It is, therefore, not misplaced for Eko Teguh Paripurno et al. to title their work *Datang, Gali dan Pergi, Potret Penutupan Tambang di Indonesia* (Arrive, Dig, and Depart: A Portrait of Mine Closures in Indonesia) (Paripurno, 2010).

While the steps taken by the Ministry of Energy and Mineral Resources are commendable, they remain limited to the enforcement of reclamation guarantees. Looking ahead, it is expected that the Ministry will have the resolve to conduct a more substantial evaluation of both the quality and quantity of reclamation. Such an assessment must determine whether these efforts have successfully restored, rehabilitated, and improved the quality of the environment and ecosystems, enabling them to function according to their designated use. The public will undoubtedly support any policy that fosters a "green culture" of compliance among mining companies, ensuring that "green mining" becomes a tangible reality rather than a mere rhetorical jargon or an act of "greenwashing" (Maimunah, 2012).

What, then, of illegal mining? Its transient nature—operating both within and outside designated

mining areas, or even in prohibited zones—coupled with a lack of guidance and oversight, the absence of proper technical methods, and a blatant disregard for reclamation, results in potentially more massive destruction. During the Plenary Session of the People's Consultative Assembly (MPR) in August 2025, the President stated that there are 1,063 illegal mines damaging the ecosystem, with potential state losses amounting to at least 300 trillion rupiahs. We must envision thousands of mining sites shifting daily, steadily degrading environmental quality. While economic factors are often cited as a justification, we must be honest that behind these activities lie economic interests that reap even greater profits. It is here that the state must intervene to provide legal certainty for small-scale and community mining, ensuring that they operate legally, remain environmentally conscious, and that their welfare is guaranteed.

The tension between environmental interests and economic interests in the mining sector causes prolonged conflict and creates a dichotomy within society, between those in favour and those against. Sidelining environmental sustainability in the name of economic necessity is certainly imprudent, as it will bequeath a degraded ecology to future generations. Indra Ismawan (1999) offers a cautionary message for us all: to be wary of skyrocketing economic growth figures that may conceal underlying ecological risks acting as a "time bomb." Conversely, the abundance of natural resources as a divine blessing also holds the potential to bring prosperity. It is here that the role of law, particularly mining law, occupies a strategic position to weave these two interests together judiciously. Efforts to integrate both must be guided by the supreme sovereignty or power formulated within the constitution and must remain hierarchically consistent down to technical regulations. The sovereignty I refer to is environmental sovereignty or ecological power. According to Jimly Asshiddiqie (2009), the post-reform 1945 Constitution has embraced environmental sovereignty—or ecocracy—where the environment/nature, as a legal subject, possesses inherent rights to have its balance maintained for the sake of future sustainability.

At the level of law enforcement, although criminal provisions exist, their formulation contains several issues regarding the structure of the sanctioning system and the weakness of additional penalties. At the implementation stage, enforcement has thus far been limited to administrative sanctions, with a noticeable absence of criminal prosecutions.

The aforementioned narrative delineates several key issues that form the core discussion of this paper. First, the problematic paradigm within the mining sector. Second, the legal standing of environmental sovereignty within both the Constitution and the Mining Law. Third, the formulation of criminal

provisions, which exhibit weaknesses in both their legislative drafting and their practical implementation.

METHODOLOGY

This study is normative legal research employing a statutory approach. A normative examination of various regulations concerning the environment and mineral and coal mining was conducted, ranging from hierarchy, harmonisation, and synchronisation to an analysis of their formulation. The data sources comprise both primary and secondary legal materials. Primary materials include the 1945 Constitution; Law Number 32 of 2009 on Environmental Protection and Management; Law Number 2 of 2025 concerning the Fourth Amendment to Law Number 4 of 2009 on Mineral and Coal Mining; and the Ministry of Forestry Decree Number 406 of 2025 on the Determination of National Critical Land Maps and Data for 2024. Secondary materials consist of previous research findings, academic journals, books, and documents relevant to the research issues.

RESULTS

Anthropocentrism in the Mining Sector: Environmental Degradation

In the history of its development, there are three models of environmental ethical theory: Shallow Environmental Ethics, Intermediate Environmental Ethics, and Deep Environmental Ethics. These are also known as anthropocentrism, biocentrism, and ecocentrism, respectively.

Anthropocentrism views humans as the centre of the universe. The highest values are humans and their interests; thus, concern for environmental preservation is based solely on the rationale of satisfying human needs. This perspective, which argues that morality can be restricted to humanity alone, is also employed in related value theories which posit that nothing is significant beyond human interests or concerns, in the sense of possessing independent value (Attfield, 2015).

This argument is rejected by Biocentrism, which views nature as having intrinsic value independent of human interests. Every life form and living creature on earth possesses equal moral value and must, therefore, be protected and preserved. This theory bases morality on the sanctity of life, whether in humans or other living beings. As an evolution of biocentrism, Ecocentrism emerged, although some equate the two due to their shared anti-anthropocentric stance. The distinction lies in their focus: biocentrism centres ethics on the biotic community and all life, whereas ecocentrism centres ethics on the entire ecological community, encompassing both biotic

and abiotic elements. A currently popular version of ecocentrism is the "Deep Ecology" movement, initiated by the Norwegian philosopher Arne Naess in 1973. The moral principles he developed concern the interests of the entire ecological community (Keraf, 2010). Marion Hourdequin, in her book *Environmental Ethics: From Theory to Practice*, notes that a critical diagnosis of the troubled relationship between humans and nature focuses on anthropocentrism and the subsequent failure to appreciate non-human organisms and ecosystems (Hourdequin, 2024).

The anthropocentric perspective, which posits human interests as the most valuable, has driven excessive exploitation of nature, resulting in the destruction of ecosystems and the disruption of environmental equilibrium (Giuseppe, 2023). Furthermore, the application of this ideology leads to uncontrolled exploitation of natural resources, which becomes a source of crisis (Anggraini & Rohmatika, 2023). The anthropocentric approach within mining activities has contributed to massive environmental degradation. Erwiza Erman (2008) notes that while mining companies act as agents of development, none can deny that mining has "upturned the earth" (Yuliani, 2008).

In light of the critical views on anthropocentric development mentioned above, we ought to reflect on Carson's (1962) assertion that the 'Control of Nature' is a phrase conceived in arrogance, born of the Neanderthal age of biology and philosophy, when it was supposed that nature exists for the convenience of man (Barry, 2007). Thus, our attempts to claim control over nature—thereby positioning it beneath human interests—is, according to Carson, an act of hubris. We should instead live in harmony with nature, acknowledging a position of at least equality; in fact, we are merely a subsystem of a vast natural world teeming with millions and billions of lives.

As a concrete example, tin exploitation in the Bangka Belitung Islands, characterized by an anthropocentric pattern, has left behind thousands of kolong (abandoned mining pits), endless conflicts, and a phenomenon where farmers have transitioned into miners, as documented by Susilo and Maemunah (2009) in their book titled *Tiga Abad Melayani Dunia (Potret Tambang Timah Bangka Belitung)* [Three Centuries of Serving the World: A Portrait of Tin Mining in Bangka Belitung]. This excessive exploitative nature has engendered social inequality, school dropouts, and increased criminality (Ibrahim et al., 2019) (Dwi Haryadi et al., 2022). Furthermore, the dependency on mining has caused the local economic movement to be heavily dictated by the fluctuations of mining activities and price volatility (Ibrahim et al., 2018). In a philosophical analysis, Ibrahim argues that the tin economy in the Bangka Belitung Islands Province has

experienced a disorientation of Pancasila philosophical values and exhibits a hegemonic-capitalistic character (Ibrahim & Siswanto, 2011).

Therefore, it is high time to shift our mining resource governance from anthropocentrism to ecocentrism through environmentally sound mining practices. The principles of ecocentrism must be internalised within all mining planning and policies—ranging from national legislation to technical regulations, and from central to regional levels—to ensure the balanced protection of all ecological communities (Haryadi et al., 2020) (Haryadi et al., 2021) (Dwi Haryadi et al., 2024). Naturally, such normative idealities must be matched by consistency at the implementation level.

The Failure of the Sustainable Development Paradigm: Realising Ecological Sustainability

The environmental crisis of recent decades has transcended local boundaries to become a global concern. Various international and national legal instruments have emerged to safeguard development, ensuring it remains environmentally conscious through the concept frequently referred to as "sustainable development." This paradigm, globally agreed upon at the Earth Summit in Rio de Janeiro, has increasingly faced criticism. Decades of implementation have revealed its tendency to lean towards a developmentalist ideology that prioritises economic growth despite its adverse environmental impacts. Consequently, for environmental advocates, sustainable development is perceived as a failure. We must, therefore, begin to seriously consider Arne Naess's proposition of "broad ecological sustainability" as a replacement for sustainable development. Its primary objective is not development, but rather the maintenance and preservation of ecology. The benchmark for success is not material progress, but a guaranteed quality of ecological life, alongside proportionate socio-cultural and economic considerations (Keraf, 2010).

Efforts to collaborate economic interests with ecological preservation are undeniably challenging within an anthropocentric development framework. However, Capra's vision of a sustainable society is rooted in the philosophy of bioregionalism, which emphasises economic development based on local natural conditions. This model seeks to reunite economics and ecology, acknowledging that both fields are fundamentally concerned with the "household" (oikos), nature, dwelling, and life's habitat. From a bioregionalist perspective, economy is synonymous with a "green economy"—one that is integrated with and dictated by ecology. An economy that destroys or contradicts local ecosystems is not an economy at all, or rather, it is a self-destructive one.

Nature is not to be conquered but respected and served; in doing so, nature contributes its resources—natural capital—essential for human needs such as food, water, air, energy, sunlight, and climate, all of which constitute the capital for the human economy (Keraf, 2014).

Environmental Sovereignty within the Constitution

Sovereignty is a concept typically examined within the fields of political philosophy and state law. It embodies the conception of supreme power associated with the state (Asshiddiqie, 2006). The notion of Ecocracy or Environmental Sovereignty is developed within the context of power constructed through the relational mechanism between God, Nature, and Humanity (Asshiddiqie, 2009). In the contemporary era, power relations are predominantly centred on humans—known as anthropocentrism—which has led to systemic destruction. Consequently, we must shift our paradigm to recognise that nature also possesses its own rights and authority, moving from anthropocentrism toward theocentrism.

According to Asshiddiqie (2009) there are six tenets of sovereignty contained within the 1945 Constitution of the Republic of Indonesia: Divine Sovereignty, the Rule of Law (Legal Sovereignty), Popular Sovereignty, State Sovereignty, Monarchical Sovereignty, and Environmental Sovereignty. From an operational perspective, the most significant of these are the rule of law derived from the idea of nomocracy, popular sovereignty from democracy, and environmental sovereignty from the idea of ecocracy within the system of state power. All three are inherently sourced from Divine values—Theocracy—as the supreme authority.

The environmental aspect within a constitution is known as a "green constitution." According to Klaus Bosselmann (2015), it represents “a constitutional commitment to ecological sustainability” (Baharudin, 2025). Furthermore, Lynda Collins, in her book “The Ecological Constitution” (2021), notes that despite criticisms regarding the effectiveness of ecological sustainability within constitutions, academics continue to support the concept of a green constitution as a significant step in enhancing the state's role in environmental protection.

How is the "green nuance" manifested within the Indonesian Constitution as an expression of environmental sovereignty? The development of the 1945 Constitution of the Republic of Indonesia (UUD 1945) can be broadly categorised into two eras: pre-amendment and post-amendment. Even in its original form (pre-amendment), the Constitution essentially contained green nuances, although specific terminology regarding the environment, sustainable

development, or environmental human rights had not yet explicitly emerged. According to Hardjasoemantri (2005), the fundamental principles underlying environmental protection and development in Indonesia include:

1. **The Preamble to the 1945 Constitution:** The fourth paragraph affirms the state's obligation and the government's duty to protect all of Indonesia's human and natural resources within the environment for the welfare of the Indonesian people and all of humanity.
2. **Article 33, Paragraph (3):** This stipulates that the earth, water, and the natural resources contained therein are controlled by the state and utilised for the greatest prosperity of the people. This provision grants the "right of control" (*hak penguasaan*) to the state over all natural resources while imposing an obligation to utilise them for public prosperity.
3. **The Broad Guidelines of State Policy (GBHN):** The two aforementioned provisions were further elaborated by the People's Consultative Assembly (MPR) in Decree Number IV/MPR/1973, Chapter III, point 10, which states: "In the implementation of development, Indonesia's natural resources must be used rationally. The extraction of these resources must be managed so as not to damage the human environment, carried out with comprehensive wisdom, and by considering the needs of future generations."

Citing Koesnadi Hardjasoemantri, it can be argued that the pre-amendment 1945 Constitution implicitly embodied environmental sovereignty as regulated in both its preamble and articles. In the Preamble, the government's obligation to "protect" is interpreted to include environmental aspects. Similarly, Article 33, paragraph (3) is understood as granting the state the right of control to manage natural resources in an environmentally conscious manner aimed at public prosperity. The 1945 Constitution has undergone four amendments, resulting in many fundamental changes. Regarding environmental protection, these constitutional amendments provide more detailed regulations, such as Article 28H and Article 33, paragraph (4). Before further analysis, it is essential to note that the norms within the 1945 Constitution are derived from Pancasila. Understanding this is crucial as constitutional norms are the embodiment of Pancasila principles. Article 28H is a manifestation of the second principle of Pancasila: "A Just and Civilised Humanity." This involves respect for human rights, including the right to live within a healthy environment. Furthermore, Article 33, paragraph (4) manifests the fifth principle: "Social Justice for All Indonesian People." This welfare-oriented fifth principle provides guidance that natural

resource management must be environmentally oriented (The Leadership and the Socialisation Task Force of the People's Consultative Assembly (MPR), 2012).

Article 28H, paragraph (1) stipulates that, "Every person shall have the right to live in physical and spiritual prosperity, to have a home, and to enjoy a good and healthy environment, and shall have the right to obtain medical care." Meanwhile, Article 33, paragraph (4) mandates that, "The national economy shall be conducted based on economic democracy with the principles of togetherness, efficiency with justice, sustainability, environmental insight, and self-sufficiency, while maintaining a balance between progress and national economic unity." These constitutional norms are intrinsically linked to Article 33 in its entirety—namely, the governance of natural resources as a pivotal driver of the economy. This provision serves as the primary reference for the exploitation of mineral deposits, including tin. The exploitation of minerals, as an integral part of national economic activities, must remain sustainable and environmentally conscious.

Law Number 32 of 2009 on Environmental Protection and Management, Article 1, paragraph (3) defines sustainable development as a conscious and planned effort that integrates environmental, social, and economic aspects into a development strategy to ensure environmental integrity as well as the safety, capability, welfare, and quality of life of both present and future generations. Meanwhile, environmentally-oriented development is defined as continuous development aimed at improving the community's quality of life through the optimal management of natural resources (Khairina et al., 2020).

Thus, the evidence strongly points out that environmental protection is implicitly embedded within Pancasila, which functions as the legal ideal (*rechtsidee*), the fundamental norm (*grundnorm*), the ideology, and the way of life for this nation (Salahudin, 2019). Therefore, we must position the environment as a manifestation of sovereignty within the system of state power. Hierarchically, the legal ideal of environmental protection—both as a human right and a developmental guideline—is both implied and explicitly stated in the Preamble of the 1945 Constitution and its subsequent articles. At the next level of regulation, which is more sectoral and technical, down to the lowest level, this environmental sovereignty has also been internalised.

Environmental Sovereignty within the Mineral and Coal Mining Law

The primary regulation governing mineral and coal mining in the post-reform era is Law Number 4 of 2009 on Mineral and Coal Mining. To date, this law has undergone four amendments, the

latest being Law Number 2 of 2025. As a regulation overseeing the extraction of mineral deposits, it inherently impacts the environment. Law Number 4 of 2009, including its amendments, contains various provisions aimed at ensuring environmentally-conscious mining practices:

1. In the 'considering' recitals, point (c) states: “That by considering national and international developments, Law Number 11 of 1967 on the Basic Provisions of Mining is no longer suitable, thus requiring a change in the laws and regulations in the field of mineral and coal mining that can manage and cultivate mineral and coal potential in an independent, reliable, transparent, competitive, efficient, and *environmentally-conscious* manner, to ensure sustainable national development.” Therefore, one of the important backgrounds for the change from the old regulation to the new one is the transformation of mining management towards being environmentally conscious. It is important to note that the 'considering' recitals of the previous law only mentioned that the mining sector was to become a real economic force. This means the paradigm was indeed anthropocentrism, with mining as an engine of development.
2. The 'observing' recitals only include Article 5 paragraph (1), Article 20, and Article 33 paragraph (2) and paragraph (3) of the 1945 Constitution of the Republic of Indonesia. As a regulation in the mining sector that serves as a pillar of the national economy, Article 33 paragraph (4) should be included as an important legal basis because it contains the principle of *environmental consciousness*, to demonstrate a commitment to green-nuanced regulation and to remain linear with the 'considering' recitals mentioned above.
3. Article 1 paragraph (6) defines mining business as a series of several activities, including exploration. Exploration activities are regulated in Article 1 paragraph (15), stating that it is a stage of mining business activity to obtain detailed and precise information regarding the *social environment and the natural environment*. Exploration activities are the second stage of mining business after the general investigation stage. Information regarding the environment must already be obtained and serve as a material for consideration.
4. Feasibility study as the third stage of mining business regulated in Article 1 paragraph (16) is a stage of mining business activity to obtain detailed information on all related aspects to determine the economic and technical feasibility of a mining business, including *environmental impact analysis* and post-mining planning. Thus, the feasibility study stage becomes an important filter before mining activities are conducted. At this stage, AMDAL

(Environmental Impact Assessment) is conducted, including the planning prepared for post-mining activities that intersect with environmental aspects, such as reclamation. However, this provision underwent changes in Law Number 2 of 2025, such that the definition of feasibility study changed to: “Every stage of mining business activity to obtain detailed information on all related aspects to determine the economic and technical feasibility of a mining business.” Consequently, AMDAL and post-mining planning are not included in the feasibility study. This change adjusts to the revision of Law Number 32 of 2009 on Environmental Protection and Management within the Job Creation Law, stipulating that AMDAL is contained within the business licensing.

5. Production operation as part of the mining stages based on Article 1 paragraph (17) is a stage of mining business activity that includes construction, mining, processing and/or refining or development and/or utilisation, including transportation and sales, as well as *environmental impact control facilities* in accordance with the results of the feasibility study. Therefore, it is at this production operation stage that environmental control facilities are implemented.
6. Construction based on Article 1 paragraph (18) is a mining business activity to carry out the development of all production operation facilities, including *environmental impact control*. Thus, at the construction stage, environmental impact control activities are also performed.
7. Environmental Impact Analysis (AMDAL) regulated in Article 1 paragraph (25) is a study concerning the major and significant impacts of a planned business and/or activity on the *environment* required for the decision-making process regarding the implementation of the business and/or activity. This definition of AMDAL remains the same between Law Number 4 of 2009 up to the fourth amendment in Law Number 2 of 2025. However, in Law Number 6 of 2023 on Job Creation, it has undergone a change where AMDAL is a study concerning significant impacts on the environment of a planned business and/or activity, to be used as a prerequisite for decision-making regarding the implementation of the business and/or activity and is contained in the Business Licensing or Central Government or Regional Government approval. Ideally, the latest or fifth amendment in 2025 should adjust to the newest changes as it relates to business licensing provisions.
8. Article 1 paragraph (26) states that Reclamation is an activity carried out throughout the stages of Mining Business to arrange, restore, and improve the quality of the *environment and ecosystem* so that it can function again according to its designated use. Reclamation is

one of the important instruments to realise green mining. If we examine this definition, reclamation is a cumulative activity in the form of arrangement, restoration, and improvement of environmental quality so that the ecosystem can function again. The ending of reclamation is to improve environmental quality and ensure the ecosystem functions again according to its designated use. Monitoring and evaluation of the final results of reclamation must be strict to guarantee ecological sustainability. A study on reclamation on Belitung island by Dwi Haryadi et al. (2018) still shows results that are not yet maximal.

9. Article 1 paragraph (27) stipulates that post-mining activities are planned, systematic, and continuous activities after part or all of the mining business activities to *restore natural environmental functions* and social functions according to local conditions throughout the mining area. If post-mining activities are carried out seriously, environmental damage and social conflicts should be minimised because environmental functions and local functions have been restored. According to Bell and Donnelly (2006), the level of impact caused by mining on the environment varies depending on the minerals worked, the working methods, as well as the location and size of the mining area. Therefore, post-mining methods should indeed be adjusted to the needs with the ultimate goal of environmental restoration.
10. Chapter II, titled principles and objectives, regulates Article 2 point d, which reads that mineral and/or coal mining is managed based on the principles of sustainability and *environmental insight*. This principle is elaborated as a principle that plannedly integrates economic, environmental, and socio-cultural dimensions in the entirety of the mining business to realise current and future welfare. As a principle, sustainability and environmental insight become the main reference in every mining activity.
11. Still in Chapter II, Article 3 point b regulates that in order to support sustainable national development, the goal of mineral and coal management is to guarantee the benefits of mining in a *sustainable and environmentally-conscious manner*. This goal is aligned with the previously regulated principles. Thus, the goal of mining activities is not limited to maximising mining benefits but must also guarantee that such utilisation is sustainable and environmentally conscious.
12. In the national mineral and coal management plan according to Article 8A paragraph (2), it is prepared by considering 8 important things, including the *carrying capacity of natural resources and the environment*; basic and thematic geospatial data and information; and

environmental preservation. Thus, since the planning stage, the IUP (Mining Business License) holder has considered the environmental carrying capacity and environmental preservation.

13. The determination of mining areas is carried out in an integrated manner by referring to the opinions of relevant government agencies, affected communities, and by considering *ecological*, economic, human rights, and socio-cultural aspects, as well as being *environmentally conscious*. This provision is regulated in Article 10 paragraph (2) point b.
14. Areas within the WP (Mining Area) that can be designated as WPN (State Reserve Area) must meet several criteria, one of which is for conservation purposes in order to maintain the balance of the *ecosystem and the environment*. This provision is regulated in Article 27A point a.
15. The change of WPN status into WUPK (Special Mining Business Area) is carried out by considering *environmental carrying capacity* based on Article 28. Meanwhile, in the first amendment through Law Number 3 of 2020, this consideration of environmental carrying capacity was no longer regulated. In the Job Creation Law and the last amendment, this provision has not changed. The present author asserts that the consideration of environmental carrying capacity related to the change of WPN to WUPK status is important.
16. To determine one or several WIUPK (Special Mining Business Permit Area) within one WUPK based on Article 32, one of the criteria is *environmental carrying capacity*.
17. IUP, which consists of two stages of activity, namely exploration and production operation, contains at a minimum, one of which is the *obligation to carry out reclamation and post-mining*; as well as the obligation to prepare environmental documents, as regulated in Article 39.
18. The IUP holder, before conducting production operation activities, must fulfil administrative, technical, *environmental*, and financial requirements (Article 46).
19. The auction of metal mineral WIUP (Special Mining Business License Area) is conducted by considering several things, one of which is *technical capability and environmental management* (Article 51 paragraph (2)).
20. The auction of Coal WIUP is conducted by considering several things, one of which is *technical capability and environmental management* (Article 60 paragraph (2b)).

21. Business entities, cooperatives, or individual companies conducting metal mineral mining business must fulfil administrative, technical, *environmental*, and financial requirements (Article 65).
22. IPR (People's Mining Permit) holders have the right to receive guidance and supervision in the fields of occupational safety and health, *environment*, mining techniques, and management from the government and/or regional government (Article 69). This is where the importance of IPR lies, because it is worked with correct techniques, accompanied by OSH standards and is environmentally conscious.
23. IPR holders are obliged to comply with laws and regulations in the fields of mining safety, *environmental management*, and meet applicable standards; and *manage the environment together with the minister* (Article 70). The provisions of Law Number 4 of 2009 were regulated together with the regional government. However, after regional authority was abolished, everything is centralised unless there is delegation. Yet, if examined, Article 69, which did not undergo changes, still mentions that the regional government provides guidance and supervision to IPR holders. This matter is either due to an improper reformulation or because there is potential for IPR delegation to the regional government.
24. The Minister is responsible for the implementation of technical norms in IPR, one of which is *environmental management, including reclamation and post-mining* (Article 73).
25. The auction of WIUPK for private business entities is conducted by the Minister and is carried out by considering, among others, *technical capability and environmental management* (Article 75).
26. Production Operation IUPK (Special Mining Business License) must at a minimum contain, one of which is the *environment, including reclamation and post-mining* (Article 79).
27. Business entities conducting activities within the WIUPK must fulfil administrative requirements, technical requirements, *environmental requirements*, and financial requirements (Article 86).
28. SIPB (Rock Mining License) is granted by the minister based on an application from a regional government-owned enterprise/village-owned enterprise, a private business entity in the context of domestic investment, a cooperative, or an individual company, which has fulfilled administrative, technical, *environmental*, and financial requirements (Article 86A paragraph (4)).

29. SIPB holders have the right to receive guidance in the fields of mining safety, *environment*, mining techniques, and management from the minister (Article 86E point a).
30. Business entities holding an IUP or IUPK obtain ministerial approval after fulfilling administrative, technical, environmental, and financial requirements (Article 93A).
31. In the application of good mining technical norms, IUP or IUPK holders are obliged to implement, among others, the management and monitoring of the *mining environment, including reclamation and/or post-mining activities*, and the management of mining waste must meet environmental quality standards before being released into environmental media (Article 96).
32. IUP and IUPK holders are obliged to guarantee the application of *environmental standards* and quality standards in accordance with the characteristics of a region (Article 97).
33. IUP and IUPK holders are obliged to maintain the *sustainability of the functions and carrying capacity of the relevant water resources* in accordance with the provisions of laws and regulations (Article 98).
34. IUP or IUPK holders are obliged to prepare and submit *reclamation plans and/or post-mining plans*, and the implementation of reclamation and post-mining is carried out in accordance with the post-mining land designation (Article 99).
35. IUP or IUPK holders are obliged to provide and place reclamation guarantee funds and/or post-mining guarantee funds, the amount of which is determined by the minister, and the minister may appoint a third party to carry out reclamation and/or post-mining with the guarantee funds (Article 100). The author contends that the involvement of third parties in reclamation diminishes the accountability of the IUP holder. A genuine commitment to environmental preservation dictates that the responsibility for reclamation must rest directly with the permit holder. Consequently, the obligation should not be limited to the submission of guarantee funds but must encompass active participation in the rehabilitation of the mining site, even when collaborating with external partners.
36. IUP and IUPK holders are obliged to prepare community development and empowerment programs consisting of social and environmental responsibility programs (Article 108).
37. One type of mining service business is implementation in the field of environmental services (Article 124).

38. Oversight of mining business activities conducted by holders of IUP, IUPK, IUPK as a continuation of contract/agreement operations, IPR, or SIPB as referred to in Article 140, includes, among others, *environmental management, reclamation, and post-mining* (Article 141).
39. KK (Contracts of Work) and PKP2B (Coal Mining Concession Work Agreement) may be granted an extension to become IUPK as a continuation of contract/agreement operations after fulfilling requirements and conditions, including the conduct of an *environmental audit* (Article 169A).
40. Any issues arising from the implementation of licensing related to environmental impacts shall be resolved in accordance with the provisions of laws and regulations (Article 166).
41. Any person whose IUP or IUPK is revoked or expires and who fails to carry out reclamation and/or post-mining activities may be subject to imprisonment and fines, as well as additional penalties in the form of payment of funds for the execution of the reclamation and/or post-mining obligations that constitute their responsibility.

Based on the identification above, there are at least dozens of provisions within the Mineral and Coal Mining Law that guarantee mining activities are environmentally conscious in order to realise ecological sustainability. This demonstrates how environmental policies are actually quite stringent, despite some critical notes. What remains is the consistency of their implementation.

Weaknesses and Reformulation of Criminal Provisions

Environmental sovereignty in mining law must be supported by a legal system comprising legal substance, legal structure, and legal culture. The aspect of legal substance was discussed previously; however, this section specifically focuses on the formulation of criminal provisions regarding unauthorised mining. Historically, from a normative perspective, the criminalisation of unauthorised mining has been regulated ever since the Perpu (Government Regulation in Lieu of Law) Number 37 of 1960 on Mining. Article 26 of said Perpu stipulates: "Any person who conducts mining activities without a mining authority shall be punished with a maximum imprisonment of six years and/or a maximum fine of five hundred thousand rupiahs."

Subsequently, the Perpu was revoked and replaced by Law Number 11 of 1967 on the Basic Provisions of Mining, which also criminalised unauthorised mining under Article 31, paragraph (1), with the substance remaining unchanged from the previous Perpu. Following the reform era,

Law Number 4 of 2009 on Mineral and Coal Mining was enacted, stipulating in Article 158 that: “Any person who conducts mining business without an IUP, IPR, or IUPK shall be punished with a maximum imprisonment of 10 years and a maximum fine of Rp10,000,000,000.00 (ten billion rupiahs).”

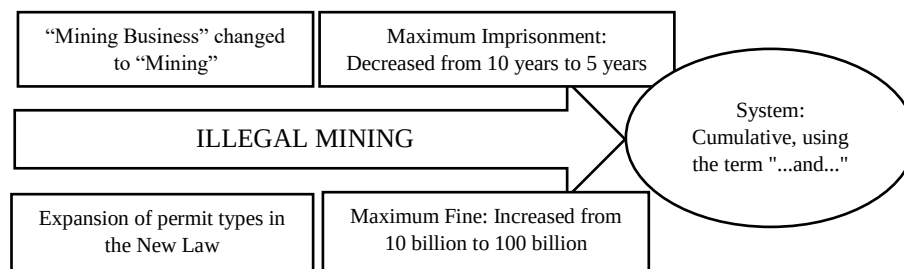
Several differences between these criminal provisions and those of the previous law include the types of mining permits, the duration of imprisonment, the amount of fines, and the formulated sanctioning system. The current system employs a cumulative approach, whereas the previous one utilised a cumulative-alternative approach with the diction "and/or," meaning either or both sanctions could be applied.

In the first amendment via Law Number 3 of 2020, the legislators amended Article 158 to read: “Any person who conducts mining without a permit as referred to in Article 35 shall be punished with a maximum imprisonment of 5 (five) years and a maximum fine of Rp100,000,000,000.00 (one hundred billion rupiahs).”

There are several notable changes. First, the term "mining business" (*usaha penambangan*) was simplified to "mining" (*penambangan*). Second, there is an adjustment to the types of permits, which were expanded under Article 35. Third, the maximum prison sentence was reduced from 10 years to 5 years. Fourth, the maximum fine was increased from Rp10,000,000,000.00 (ten billion rupiahs) to Rp100,000,000,000.00 (one hundred billion rupiahs). Meanwhile, the formulation of the sanctioning system remains cumulative.

Figure 1

Changes to Article 158 concerning Illegal Mining Offences



Regarding these provisions, the author offers several observations. **First**, reducing the maximum prison sentence while increasing the fine is a commendable step. In practice, unauthorised mining cases in court are dominated by local miners who are typically handed minimum sentences. This formulation will gradually help alleviate prison overcapacity. Should the perpetrator be a corporation, there is a one-third weight increase in other provisions to ensure a sense of justice. Legislators are also oriented toward increased fines, given that illegal mining results in state losses due to non-compliance with statutory mechanisms. Moreover, environmental damage clearly requires significant costs for restoration. The challenge remains ensuring that the paid fines are specifically allocated for environmental recovery. In practice, however, the fines paid are often disproportionate—ranging only from hundreds of thousands to a few million rupiahs—as seen in several judgments in Table 1, sampled randomly across various years from a District Court.

Second, the use of a cumulative system should be reconsidered as it is rigid and lacks flexibility in imposing sanctions proportionate to the degree of fault. It appears that legislators are oriented toward imprisonment as a deterrent and fines as compensation for state losses and environmental damage. Nevertheless, as previously mentioned, it remains unclear whether these fines are re-allocated for environmental restoration. The imposition of fines tends to be a conversion of the perpetrator's profits rather than a detailed calculation of state losses and environmental recovery costs. Referring to the National Criminal Code (KUHP *Nasional*) which came into effect in January 2026, the patterns used include single, cumulative, and alternative threats. For this offence, the author proposes the use of an alternative pattern for several reasons. Primarily, practice has shown that those prosecuted are often miners receiving minimum prison sentences, yet negative side effects occur, such as prison overcapacity, increasing prison operational costs, and the social stigma of being an ex-convict for the miners. Secondly, an alternative pattern allows judges to consider motives, profits, and other factors to determine whether imprisonment or a fine is more appropriate, whereby fines could then be maximised.

Table 1

Criminal Sanctions in Court Rulings

No	Illegal Mining Article 158	Criminal Sanctions
1	2018 Judgment	• 2 months 15 days • 10 million fine
2	2019 Judgment	• 7 months

		• 2 million fine
3	2020 Judgment	• 3 months • 3 million fine
4	2021 Judgment	• 3 months • 2 million fine
5	2022 Judgment	• 5 months • 3 million fine

Regarding environmental law enforcement, research by Sipayung et al. (2023) illustrates conditions that have yet to meet expectations. Their study concludes that effective environmental law enforcement is vital for achieving Indonesia's sustainable development goals. Improvements in existing legislation, better inter-agency coordination, and increased public awareness of environmental importance are necessary. The government and society must collaborate to ensure Indonesia achieves sustainable development.

Third, additional penalties regulated in Article 164 include: a. forfeiture of goods used in the commission of the offence; b. forfeiture of profits derived from the offence; and/or c. the obligation to pay costs arising from the offence. In reality, illegal mining activities clearly damage the environment. Indeed, in every court judgment, this aspect is mentioned as an aggravating factor. For instance, some judgments state that the defendant's actions do not reflect efforts to rehabilitate critical land or that their actions cause or potentially lead to environmental damage. Such considerations consistently appear at the end of judgments. However, perpetrators are initially processed solely under the Mineral and Coal Law, or in conjunction with other offences such as work accidents. There is no direct accountability for the environmental damage caused. Therefore, as part of promoting environmentally-conscious mining, the author proposes a reformulation to include additional penalties—similar to those found in Law Number 32 of 2009 on Environmental Protection and Management—namely, the remediation of consequences resulting from the criminal act. This is crucial for environmental recovery and for fostering a "green culture" among both individual miners and corporations.

CONCLUSION

Based on the discussion above, the author concludes several key points. First, mining activities driven by anthropocentrism have degraded environmental quality; therefore, it is imperative to shift towards ecocentrism, which prioritises ecology to realise "green mining." Second, the sustainable development paradigm has thus far prioritised economic development at the expense of social and, more significantly, environmental aspects. Third, the Indonesian Constitution—specifically the post-amendment 1945 Constitution—has embraced ecocracy or environmental sovereignty. Fourth, the Mineral and Coal Mining Law contains 41 environmental provisions governing mining activities from upstream to downstream, demonstrating the integration of environmental sovereignty within mining governance. Fifth, there are inherent weaknesses in the formulation of criminal provisions; hence, the author proposes a reformulation oriented towards environmental protection.

REFERENCES

- A. Sonny Keraf. (2014). *Filsafat Lingkungan Hidup: Alam sebagai Sebuah Sistem Kehidupan Bersama Fritjof Capra*. Kanisius.
- Anggraini, R. D., & Rohmatika, R. V. (2023). Dogma Antroposentrisme Pemicu Krisis Lingkungan dalam Pandangan Ekoteologi Seyyed Hossein Nasr. *Gunung Djati Conference Series*, 19(2), 762–778. <https://doi.org/10.24042/AJSLA.V16I2.9971>
- Asshiddiqie, J. (2006). *Konstitusi dan Konstitusionalisme Indonesia*. Sinar Grafika.
- Attfield, R. (2015). Environmental Ethics. In *Polity Press*. Polity Press. https://www.researchgate.net/publication/305373631_The_ethics_of_the_global_environment_2nd_Edition
- Baharudin, U. A. (2025). Konstruksi Green Constitution dalam Undang-Undang Dasar: Menafsir Hak atas Lingkungan sebagai Mandat Konstitusional. *Smart Lawyer*, 1. <https://smartlawyer.id/konstruksi-green-constitution-dalam-undang-undang/>
- Barry, J. (2007). Environment and Social Theory. *Environment and Social Theory*, 1–351. <https://doi.org/10.4324/9780203946923>
- Bell, F. G., & Laurance J. Donnelly. (2006). *Mining and its Impact on the Environment*. Taylor & Francis.
- Bosselmann, K. (2015). *Earth governance: trusteeship of the global commons*. 300. <https://www.e-elgar.com/shop/gbp/earth-governance-9781783477814.html>
- Collins, L. (2021). The ecological constitution: Reframing environmental law. In *The Ecological Constitution: Reframing Environmental Law*. Taylor and Francis. <https://doi.org/10.4324/9780429277320/ECOLOGICAL-CONSTITUTION-LYNDA-COLLINS/RIGHTS-AND-PERMISSIONS>

- Giuseppe, P. (2023). Anthropocentrism, Natural Harmony, Sentience and Animal Rights: Are We Allowed to Use Animals for Our Own Purposes? *Animals (MDPI)*, 13:1083(6). https://doi.org/https://doi.org/10.3390/ani13061083?urlappend=%3Futm_source%3Dresearchgate.net%26utm_medium%3Darticle
- Hardjasoemantri, K. (2005). *Hukum Tata Lingkungan*. UGM Press.
- Haryadi, D., Ibrahim, & Darwance. (2020). Politics of environmental law in relation to mining in Bangka Belitung: A mapping. *IOP Conference Series: Earth and Environmental Science*, 599(1). <https://doi.org/10.1088/1755-1315/599/1/012087>
- Haryadi, Dwi, Darwance, & Dwisalfutra, R. (2018). *Antara Ekspektasi dan Implementasi (Studi Problematika Reklamasi pertambangan Timah di Pulau Belitung)*. Istana Media.
- Haryadi, Dwi, Ibrahim, & Darwance. (2024). MEMBANGUN TATA KELOLA PERTAMBANGAN TIMAH YANG EKOSENTRIS DI KEPULAUAN BANGKA BELITUNG. *Bina Hukum Lingkungan*, 8(3), 235–257. <https://doi.org/10.24970/BHL.V8I3.276>
- Haryadi, Dwi, Ibrahim, I., & Darwance, D. (2021). Strategic Ecological Issues: Environmental Problems in a Perspective of Regional Development in Bangka Belitung. *E3S Web of Conferences*, 241, 05001. <https://doi.org/10.1051/E3SCONF/202124105001>
- Haryadi, Dwi, Ibrahim, I., & Darwance, D. (2022). ENVIRONMENTAL ISSUES RELATED TO TIN MINING IN BANGKA BELITUNG ISLANDS. *PEOPLE: International Journal of Social Sciences*, 8(3), 67–85. <https://doi.org/10.20319/PIJSS.2022.83.6785>
- Hourdequin, M. (2024). *Environmental Ethics : From Theory to Practice*. Bloomsbury Publishing.
- Ibrahim, Haryadi, D., & Wahyudin, N. (2018). *EKONOMI POLITIK SUMBER DAYA TIMAH*. Istana Media.

- Ibrahim, Haryadi, D., & Wahyudin, N. (2019). *POLITIK EKOLOGI Dan Pelajaran dari Kasus Timah Bangka Belitung*. Istana Media.
- Ibrahim, & Siswanto, J. (2011). *EKONOMI PERTIMAHAN DALAM PERSPEKTIF FILSAFAT PANCASILA (Studi Kasus di Provinsi Kepulauan Bangka Belitung)* [UGM].
<https://etd.repository.ugm.ac.id/penelitian/detail/54004>
- Ismawan, I. (1999). *Risiko Ekologis di Balik Pertumbuhan Ekonomi*. Media Persindo.
- Jimly Asshiddiqie. (2009). *Green Constitution : Nuansa Hijau Undang-Undang Dasar Negara Republik Indonesia Tahun 1945*. Rajawali Pers.
- Keraf, A. S. (2010). *Etika Lingkungan Hidup*. PT. Kompas Media Nusantara.
- Khairina, E., Purnomo, E. P., & Malawani, A. D. (2020). Sustainable Development Goals: Kebijakan Berwawasan Lingkungan Guna Menjaga Ketahanan Lingkungan Di Kabupaten Bantul Daerah Istimewa Yogyakarta. *Jurnal Ketahanan Nasional*, 26(2), 155–181.
<https://doi.org/10.22146/JKN.52969>
- Maimunah, S. (2012). *Negara tambang dan Masyarakat Adat Perspektif HAM dalam Pengelolaan Pertambangan yang Berbasis Lingkungan & Kearifan Lokal*. Intrans Publishing.
- Paripurno, E. T. (2010). *DATANG, GALI & PERGI (Potret Penutupan Tambang di Indonesia)*. In-Trans Publishing.
- Pimpinan MPR dan Tim Kerja Sosialisasi MPR. (2012). *Empat Pilar Kehidupan Berbangsa dan Bernegara*. Sekretariat Jenderal MPR RI.
- Salahudin;, F. A. S. M. S. M. L. S. A. (2019). *Pancasila: Dialektika dan masa depan bangsa*.
- Sipayung, B., Dwiprigitaningtias, I., Nugroho, R. J., & Bernard, B. (2023). Environmental Law Enforcement In Indonesia In Terms Of The Concept Of Sustainable Development. *Jurnal Hukum Dan HAM Wara Sains*, 2(03), 197–203. <https://doi.org/10.58812/JHHWS.V2I03.253>

Susilo, J., & Maemunah, S. (2009). *Tiga abad Melayani Dunia: Potret Tambang Timah Bangka Belitung*. Jatam.

Yuliani. (2008). *Bertaruh Keselamatan : bahaya industri migas di kawasan padat huni*. Jatam.