



## **ZERO EMISSION AN ANALYSIS OF ILLEGAL MINING AS A NON-PROCEDURAL EXPLOITATION OF THE LAW**

Ginesha Prema Rajeshvari Linggar Putri<sup>1</sup>, Paulinus VERNANDA<sup>2</sup>, Rini Puspita Ayu<sup>3</sup>, Sania Teresa Sinaga<sup>4</sup>, Sethya Sahra Intan Salampessy<sup>5</sup>, Thia Vanesia<sup>6</sup>

<sup>1</sup>Faculty of Law, President University, Indonesia. E-mail: [ginesha.putri@student.president.ac.id](mailto:ginesha.putri@student.president.ac.id)

<sup>2</sup>Faculty of Law, President University, Indonesia. E-mail: [paulinus.verynanda@student.president.ac.id](mailto:paulinus.verynanda@student.president.ac.id)

<sup>3</sup>Faculty of Law, President University, Indonesia. E-mail: [rini.ayu@student.president.ac.id](mailto:rini.ayu@student.president.ac.id)

<sup>4</sup>Faculty of Law, President University, Indonesia. E-mail: [sania.sinaga@student.president.ac.id](mailto:sania.sinaga@student.president.ac.id)

<sup>5</sup>Faculty of Law, President University, Indonesia. E-mail: [sethya.salampessy@student.president.ac.id](mailto:sethya.salampessy@student.president.ac.id)

<sup>6</sup>Faculty of Law, President University, Indonesia. E-mail: [thia.vanesia@student.president.ac.id](mailto:thia.vanesia@student.president.ac.id)

Article	Abstract
<p><b>Keywords:</b></p> <p><i>Zero Emission; Illegal Mining; Non-Procedural Exploitation of Law</i></p> <p><b>Article History</b></p> <p>Received: Apr.5,2023; Reviewed: Apr.9,2023; Accepted: May.13,2023; Published: Jun.10, 2023</p>	<p>Zero Emission also known as Net Zero Emission is a step in pursuing Indonesia's pollution-free mission. Efforts are made to neutralize pollution caused by human activities, so an absorption resource is needed. However, these absorptive resources, namely forests, are damaged due to illegal mining activities because they are non-procedural so mining activities impact deforestation. In writing this journal, a qualitative normative legal approach was used with secondary data and other relevant legal sources to gain insight into the legal aspects of illegal mining. The purpose of writing is to criticize law enforcement against illegal mining activities in achieving the mission of a pollution-free Indonesia.</p>

### **1. INTRODUCTION**

Environmental problems are one of the most crucial issues in the 21st century. The level of pollution (carbon) and environmental damage caused by human activities are the main causal factors and one of the most prominent is mining. The mining paradigm is an activity of digging or mining minerals from the ground or the earth's bowels using the help of technology or manual-based or traditional mining. Mining activities seen from an economic point of view will produce profits in very large quantities, but on the contrary, seen from an environmental point of view, mining activities cause losses in the form of material impacts such as deforestation, land damage due to being affiliated with chemical substances and morally, this damage destroys the forest as a home for other living creatures

(animals). This fact always occurs in mining activities, but what if the mining activities occur illegally?

Until now, the issue of illegal mining has not been completely resolved. Understanding illegal mining can be traced from Santoso (2005), "Unlicensed Mining or (PETI) is a development effort spearheaded by a person or group of people or by companies and foundations, both legal and non-legal entities whose mining activities do not have permits. business based on the applicable laws of the authorized agency"<sup>1</sup> Seeing the condition of legal mining which still has the potential to cause damage to the environment and what kind of impact illegal mining has on the environment amidst the heated discussion of environmental reconciliation, this is an interesting point in this discussion.

In this issue of environmental damage, a trending issue has emerged which includes an environmental reconciliation movement known as Zero Emission. Net Zero Emission or Zero Emission was introduced at a convention in Paris, France in 2015 and was also ratified into Indonesian law in 2016 and is becoming increasingly widely known by the Indonesian public, especially in the Vice-Presidential Candidate debate in January 2024, where one one pair of Vice-Presidential candidates discussed Zero Emissions very intensively. Net Zero Emission (NZE) known as Zero Emission is a condition where the amount of carbon footprint originating from human activities does not exceed the capacity or amount of emissions that the earth can absorb.<sup>2</sup>

The definition of NZE refers to absorptive resources which are none other than forests. Seeing the condition of forests which are damaged every day due to illegal mining activities, then what is the impact on the life of the remaining carbon or emissions, which cannot be absorbed by the land's absorptive capacity, namely forests which continue to decrease and are unbalanced. The Zero Emission Movement, which was pioneered in CPO 21, as the commitment contained in the Paris Agreement, is certainly a real step or effort for international concern in returning the quality of the environment to a normal situation or returning it to its original state.

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<sup>1</sup>Jerico L. Chandra dkk, "*Tindak Pidana Illegal Mining Bagi Perusahaan Yang Melakukan Pertambangan Tanpa Izin*", 2020, Universitas Muhammadiyah Sumatera Utara, Vol. 3, hal.5 News

<sup>2</sup>KADIN Net Zero Hub, "*Nol Emisi Itu? Pengertian dan Upaya Mewujudkannya*", <https://netzerohub.id> diakses pada hari Minggu 25 februari 2024

However, facing illegal mining activities as an act of exploitation is certainly a big obstacle or challenge in efforts to realize Zero Emission, because the act of deforestation causes a reduction in forest land's capacity to absorb emissions or carbon. So, it does not rule out the possibility, this analysis provides preventive efforts through legal channels in achieving Indonesia's Zero Emission mission.

In illegal mining, exploitation practices occur because they think there is no boundary between the intention to exploit and this is what is most dangerous. Exploitation is the act of extracting minerals from deep within the earth on a large scale. Then what about non-procedural legal exploitation? This term refers to large-scale mineral resource extraction (exploitation) that is not based on legal provisions or procedures. These legal procedures are related to regulations regarding Mining Business Permits (IUP), legal regulations that must be obeyed in minimizing environmental damage (ecology), or Environmental Impact Analysis (AMDAL).

## **2. RESEARCH METHODOLOGY**

The research methodology employs secondary data and a qualitative normative legal approach. This method aims to investigate real problems regarding the impact of illegal mining on environmental sustainability. This includes determining what the law says about illegal mining by looking at legal texts, laws, court cases, and other relevant legal sources. In this method, participants' cases, opinions, and behaviors are used instead of quantitative measures to figure out what causes illegal mining and what effects it has.

In this study, the legal underpinnings for illegal mining and environmental preservation in Indonesia consist of Law Number 4 of 2009 on Mineral and Coal Mining and Law Number 32 of 2009 on Environmental Protection and Management. Legal considerations like the polluter pays principle and sustainable development are relevant when examining the environmental impacts of illegal mining the research method of illegal mining and its effects on protecting the environment.

## **3. DISCUSSION**

### **3.1 Zero Emission**

As explained earlier, Zero Emission was introduced during the implementation of the COP21 Paris Agreement in Paris, France in 2015, known as Net Zero Emission. Basically, Net Zero Emission is a concern and concern for environmental pollution, especially in

developing countries. Indonesia has ratified the Paris Agreement into Law Number 16 of 2016 concerning Ratification of the Paris Agreement to the United Nations Framework Convention on Climate Change. The term Zero Emission is gaining popularity along with the green economy movement in the final period of the current administration. The release of Presidential Instruction Number 7 of 2022, which directs the use of Battery-Based Electric Motorized Vehicles as Operational Service Vehicles or Individual Service Vehicles of Central and Regional Governments, embodies the green economy. This is a significant step toward Indonesia's Zero Emissions goal, with an unconditional target of 29% emission reduction and a conditional aim of up to 41% reduction compared to Business as Usual (BAU) in 2030.<sup>3</sup>

However, the previously mentioned target to achieve a Zero Emission environment in the green economy issue will not be optimal due to the presence of inhibiting factors that may have been overlooked and less intensive in controlling it, namely illegal mining. The impact of deforestation leads to the inability of absorbing resources, namely forests, to absorb carbon thoroughly due to unbalanced equality in addition to other efforts, namely the use of electric vehicles. The illegal mining polemic is still a major controversy due to the lack of legal concentration in dealing with it.

### **3.2. Influence of Illegal Mining to Achieve Zero Emission**

There are several reasons why illegal mining still exists, even though law enforcement efforts and regulations from the government exist and strict sanctions, as stated in the Mining Law. As well as some people who are in remote areas, prefer to do

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<sup>3</sup>DJKN Artikel, “Ambil Bagian Dalam Indonesia Net Zero Emission 2050”, <https://www.djkn.kemenkeu.go.id> diakses pada tgl 26 feb 2024

illegal mining because the only source of income is obtained in such a way and far from access to law enforcement so that such illegal practices are possible to occur and sometimes these illegal practices occur due to internal mistakes by the Government or regional officials so that they allow the continuation of this illegal mine, they provide legal protection or violate existing laws (Nadeak, 2024). Law enforcement inaction is also a contributing factor as well as a lack of intensive oversight of the sector, law enforcement may be limited by large areas or even insufficient resources.<sup>4</sup> The results of this illegal mining are also much targeted and many enthusiasts on the black market, this is the action of rogue elements who want to get a large profit.<sup>5</sup> Therefore, illegal mining is a challenge for the government to be more active in combating illegal mining.

Illegal mining certainly does not pay attention to aspects of environmental sustainability, which can hinder the achievement of zero emission targets. Illegal mining often occurs without considering the impact on the environment. Significant habitat damage, tainted soil and water, hastened climate change, and significant deforestation are all consequences of illegal mining that are usually ignored by people in the mining sector.<sup>6</sup> Local ecosystems and human health are put at risk by the illegal mining process's usage of mercury and other dangerous elements.<sup>7</sup> In addition to harming the ecosystem, illegal mining pits raise the risk of soil erosion.<sup>8</sup> Achieving the zero emission target requires strong law enforcement efforts, increased public knowledge of environmental impacts, and the development of viable economic

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<sup>4</sup>Tambang batu bara ilegal “kembali beroperasi” di tengah pernyataan Jokowi bahwa ‘penerimaan negara menjadi sangat berkurang.’ (2023, February 10). BBC News Indonesia. <https://www.bbc.com/indonesia/indonesia-64583574>

<sup>5</sup>Muliawati, F. D. (1970, January 1). *Terbongkar, Ini Alasan Kenapa Tambang Ilegal Marak di RI*. CNBC Indonesia. <https://www.cnbcindonesia.com/news/20221206134800-4-394212/terbongkar-ini-alasan-kenapa-tambang-ilegal-marak-di-ri>

<sup>6</sup>Walkable City untuk Kota Berkelanjutan dengan Emisi Nol Karbon - BPIW. (n.d.). <https://bpiw.pu.go.id/article/detail/walkable-city-untuk-kota-berkelanjutan-dengan-emisi-nol-karbon>

<sup>7</sup>B. (2022, February 9). *Penggunaan Merkuri Di Tambang Harus Disudahi*. Badan Standardisasi Instrumen Lingkungan Hidup Dan Kehutanan.

<https://bsilhk.menlhk.go.id/index.php/2022/02/09/penggunaan-merkuri-di-tambang-harus-disudahi/>

<sup>8</sup>S. (2022, December 6). *Dalam Dua Minggu, Petambang Batubara Ilegal Keruk 5 Hektar Lahan di Kaltim*. kompas.id.

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alternatives for surrounding communities to prevent illegal mining. Only through combined efforts can we create a more sustainable and green future.

Unlicensed Mining (PETI) is synonymous with the lives of the lower class, so it is possible that some people conduct illegal mining but do not fully understand the regulations and requirements associated with mining licenses (Fauzan, 2022).

In some areas, access to information on mining regulations and licensing procedures may be limited. This can lead to a lack of understanding or misunderstanding of what it takes to run a mine legally. Community education levels and awareness of mining laws can vary. Communities that are more educated and have better access to information may be more likely to understand mining regulations and permits, while less educated or remote communities may be less aware of their legal obligations. With that said, some cases of illegal mining occur with the support or involvement of local governments, who may grant unofficial or unauthorized permits to illegal miners.<sup>9</sup> This can confuse the community about the legitimacy of their mining activities.

The number of people experiencing unemployment and poverty will increase due to PETI closure.<sup>10</sup> However, allowing them to continue operating could be seen as ignoring the rules of the law. Although each has different consequences, both are a danger to the government. At present, efforts to meet the needs of the poor or small communities using artisanal and small-scale mining patterns have not achieved optimal results. It appears that government regulations in the field of natural resource management, especially Law 3/2020 and its implementing regulation, PP 96/2021, have not been implemented properly.

The government also anticipates PETI by implementing regulations to prevent it. With the Mineral and Coal Mining Law No. 4 of 2009 (Law 4/2009), which was

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<sup>9</sup>Tambunan, I. (2021, April 28). *Masyarakat Kecil Diperalat Pemodal Tambang Minyak Ilegal*. kompas.id. <https://www.kompas.id/baca/nusantara/2021/04/28/masyarakat-kecil-diperalat-pemodal-tambang-minyak-ilegal/>

<sup>10</sup>SH, K. S. (2023, October 11). *Dilema Pertambangan Tanpa Izin Sebagai Pertambangan Rakyat*. hukumonline.com. <https://www.hukumonline.com/berita/a/dilema-pertambangan-tanpa-izin-sebagai-pertambangan-rakyat-lt652657a0b50f1/?page=all#!>

amended by Law No. 3 of 2020 (Law 3/2020).<sup>11</sup> As well as Government Regulation No. 96 of 2021 concerning the Implementation of Mineral and Coal Mining Business Activities (PP 96/2021).<sup>12</sup> This regulation stipulates that small or large-scale mining companies must register with the Ministry of Energy and Mineral Resources to obtain a license. The act of mining without a license is illegal (Redi, 2016). It includes a criminal offense regulated in Article 158 of the Minerba Law, which states that mining activities without a permit can be punished with a maximum imprisonment of 5 (five) years and a maximum fine of Rp100,000,000,000.00 (one hundred billion rupiah).

### **3.3 Illegal exploitation of mines.**

Illegal mining poses a significant risk to worldwide initiatives aimed at achieving zero emissions and addressing climate change. This harmful behavior, which frequently disregards legal protocols and environmental regulations, not only threatens natural sustainability but also worsens carbon emissions and undermines zero-emission goals.

Illegal mining harms the ecosystem, particularly trees that play a crucial role in absorbing carbon from the atmosphere. Illegal mining, such as the unauthorized extraction of gold in Indonesia, results in annual economic losses of up to IDR 80 trillion for the government.<sup>13</sup> Illegal mining involves the use of hazardous substances like mercury and cyanide, causing harm to the environment and human health.<sup>14</sup> Illegal mining can harm forests, decreasing their ability to sequester carbon and thus exacerbating global climate change. Approximately 37% of worldwide mercury emissions originate from illegal gold mining, with Indonesia being the second-greatest

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<sup>11</sup>UU No. 3 Tahun 2020. (n.d.). Database Peraturan | JDIH BPK.  
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<sup>12</sup>PP No. 96 Tahun 2021. (n.d.). Database Peraturan | JDIH BPK.  
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<sup>13</sup>Tjakraatmadja, J. H., Hasibuan, O. P., & Sunitiyoso, Y. (n.d.). *Sulitnya berantas tambang emas ilegal di Indonesia: Antara jerat kemiskinan, warisan budaya, dan eksploitasi terselubung*. The Conversation.  
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<sup>14</sup>*Ibid*

mercury polluter globally.<sup>15</sup> Illegal gold mining has caused significant environmental damage, especially in Pohuwato, severely impacting rivers and agricultural land.<sup>16</sup>

Illegal tin mining has harmed mangrove forests in East Belitung. Those funding illegal tin mining are suspected of harming the ecology and mangrove ecosystem through their actions. Illegal mining operations not only damage the environment but also jeopardize the sustainability of the ecosystem and the well-being of local inhabitants.

To mitigate the adverse effects of illegal mining, the government should enhance law enforcement and raise knowledge about the legal status and consequences of such actions. An effective mining downstream program can help mitigate the effects of illegal mining. By promoting the effective and sustainable processing and use of mining products, downstream programs may benefit both the economy and society.<sup>17</sup>

Utilizing pertinent data on environmental harm from illegal mining, robust law enforcement, and sustainable initiatives are crucial for upholding environmental sustainability and mitigating the adverse effects of illegal mining. Non-compliant mining practices, including illegal mining, breach legal regulations. Law Number 3 of 2020 on Mining governs Indonesia's mining regulations. Law enforcement safeguards the environment and forests and halts additional harm caused by illegal mining operations by combating illegal mining.<sup>18,19</sup> Various environmental requirements are outlined in many pieces of legislation, including Law Number 4 of 2009 regarding Mineral and Coal Mining, which specifies regulations for mining licensing, operations, and reclamation to safeguard the environment. Law Number 32 of 2009 focuses on

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<sup>15</sup> *Ibid*

<sup>16</sup> Saturi, S. (2022, September 6). *Kala Tambang Emas Ilegal Rusak Sungai Tihu'o Dengilo dan Lahan Tani di Pohuwato - Mongabay.co.id*. Mongabay.co.id.  
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<sup>17</sup> *Ibid*

<sup>18</sup> P. (n.d.). *Pertama Kali Di Indonesia, Pelaku Tambang Ilegal Dihukum Pidana Berlapis*.  
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<sup>19</sup> Herman, H., Haris, O. K., Hidayat, S., Handrawan, H., Heryanti, H., & Masulili, M. F. (2022, August 15). *Penegakan Hukum Terhadap Tindak Pidana Penambangan Mineral di Kawasan Hutan Tanpa Izin*. journal.uho.ac.id. <https://doi.org/10.33772/holresch.v4i2.47>



environmental protection and management by setting environmental quality standards and requiring an environmental impact assessment (AMDAL) to avoid pollution and harm to the environment

### **3.4 Steps to Prevent Illegal Mining Based on Law**

#### **3.4.1 Based on Law No. 4 of 2009 concerning Mineral and Coal Mining (Minerba):**

First, tighten the process of granting Mining Business Permits (IUP) and Special Mining Business Permits (IUPK) with more selective verification of environmental and natural resource feasibility. This will ensure that only eligible companies can be allowed. Second, increase supervision of mining activities through regular field inspections. This will help detect and prevent illegal mining early. Third, apply strict sanctions in the form of fines, license revocation, to imprisonment for illegal mining perpetrators. Consistent law enforcement will deter people and prevent illegal mining.

Governments, law enforcement officials, and civil society must implement these precautions consistently and decisively. So that environmental sustainability can survive and illegal mining can be reduced.

#### **3.4.2 Based on Law No. 32 of 2009 concerning Environmental Protection and Management (PPLH):**

Amdal serves to assess the important impact of an activity on the environment, while RKL-RPL contains plans and efforts to control negative impacts and maximize the positive impact of mining activities. Article 18 PPLH mandates that business actors undertake post-mining environmental recovery efforts. Using the Amdal and RKL-RPL studies as a guide, this restoration should be executed to return environmental conditions to their original or even better state.

Articles 18 and 87 of the PPLH maintain the "polluters pay" principle. Illegal mining actors that damage the environment must pay for recovery. This covers penalties and expenses for environmental rehabilitation. Environmental law enforcement in mining operations is critical to protecting and preserving the environment. Pollution responsibility, environmental restoration, Amdal, and RKL-RPL are crucial to ensuring mining operations are conducted responsibly and sustainably. The laws discussed here can be used as a basis for taking action against illegal mining operations. These measures may include various preventive actions aimed at curbing and deterring illegal mining practices.

As per Environmental Protection and Management Law Number 32 of 2009, Article 64, the Minister is responsible for executing and coordinating the duties and authorities of the government specified in Article 63(1). Strengthening cooperation and coordination between the central and regional governments can be a fruitful measure to ensure effective law enforcement, supervision, and permit issuance in the mining and environmental domains.

#### **4. CONCLUSION**

Mining activities are one of the main causes of pollution and environmental damage in the twenty-first century, which makes environmental concerns important. Unauthorized mining is a persistent issue. It means that people are mining without the right permissions. The concept of Zero Emission, as described in the Paris Agreement, aims to limit carbon emissions from human activities. By cutting down trees and hurting the environment, illegal mining makes it harder to reach Zero Emission goals. Qualitative normative legal methodology is employed in research examining the environmental sustainability implications of illegal mining.

Indonesian environmental protection laws like Law Number 32 of 2009 and Law Number 4 of 2009 on Mineral and Coal Mining govern mining activities and protect the environment. Sustainable development and polluter pay are crucial when contemplating the environmental impact of illegal mining. Carbon emissions increase, and ecosystem damage results from illegal mining, which hinders the achievement of Zero Emission targets. Unregulated mining activities sometimes harm forests and bodies of water due to disregarding environmental regulations. Environmentally responsible alternatives, more public awareness, and stricter enforcement of mining laws are necessary to stop illegal mining in high-risk areas.

To prevent illegal mining, the current regulations may be enhanced by streamlining the process of giving mining permits, increasing monitoring of mining operations, and imposing harsh penalties on offenders. Following mining operations, environmental impact assessments and repair plans must be conducted to build ethical and sustainable mining processes. The mining industry is highly dependent on establishing partnerships between federal and regional governmental entities to ensure the continuity of effective environmental protection and law enforcement operations.

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