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DOWNSTREAM, GOOD MINING PRACTICES, RECLAMATION AND POST-MINING:  
POLICY AND LAW ENFORCEMENT IN INDONESIA

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Abstract

This study aims to determine and analyze the implications of the operational cooperation pattern in <sup>1</sup> mineral and coal mining activities in Indonesia, downstream <sup>64</sup> obligations, and the implementation of reclamation and post-mining. Mining activities have negative impacts in the form of quite serious environmental damage that occurs in almost all mining areas in Indonesia. From the regulatory side, mining companies and mining service companies <sup>33</sup> have been required to implement good mining principles with administrative sanctions for those who violate them, mining companies are required to <sup>5</sup> carry out downstream domestically so that they provide added value and expand employment opportunities, mining companies are also required to carry out post-mining reclamation with a success rate of 100%. With the normative legal method, it is known that the operational cooperation pattern is not appropriate to apply because the mining change company holder does not have direct control over the mining service company considering that both have an equal position even though the mining service company does not carry out <sup>49</sup> good mining principles, mineral and coal downstream is carried out inconsistently so that it is less than optimal in increasing the added value of minerals and coal and the <sup>22</sup> urgency of closing the opportunity to carry out reclamation in other forms in existing regulations because the nature of reclamation and post-mining is to return to its original condition before mining.

Keywords: downstream, corporation, reclamation

## 1. INTRODUCTION

The Indonesian government hopes there will be a greater contribution from mining activities that initially only sold raw minerals to selling minerals that have been processed and refined to a certain level and can even be further integrated into the next industrial ecosystem which produces finished goods products from <sup>54</sup> mineral and coal commodities. The policy taken is to require mining companies to <sup>31</sup> carry out downstream processing (processing and refining) domestically. To realize <sup>5</sup> this mission, the Ministry of Energy and Mineral Resources (ESDM) prohibits the export of raw minerals starting from June 10 2023. This is in line with the provisions of Article 170 A <sup>23</sup> of Law no. 3 of 2020 concerning Amendments to Law No. 4 of 2009 concerning Minerals and Coal, which <sup>51</sup>

in full reads: "Three years after the regulation comes into effect, all raw minerals exported must go through a process of increasing domestic added value.<sup>1</sup>

The government's commitment to downstream minerals and coal continues. The plan to stop exporting mineral ore is for nickel ore and other mineral ore such as bauxite ore and tin ore. The policy of banning nickel ore exports has been implemented despite facing many challenges, one of which came from the European Union which filed a lawsuit at the World Trade Organization (WTO) forum because this policy had the potential to disrupt the global nickel ore supply chain which could trigger trade conflicts. The WTO granted the European Union's lawsuit but Indonesia appealed the decision. The decision on the appeal has not yet been issued because the appeal process against WTO decisions takes a long time and is very dependent on Indonesia to submit new evidence to support the policy which does not violate world trade principles (WTO).

Downstreaming must be carried out with a mature plan so that the results can be more optimal. The implications of the downstream policy have resulted in many smelter companies being established and operating in Indonesia. The government, in this case the Ministry of Energy and Mineral Resources (ESDM), has revealed the fact that Indonesia's nickel reserves are dwindling. According to the ESDM Ministry's records, Indonesia's nickel reserves could run out within 6 to 11 years. The depletion of nickel reserves in Indonesia is the impact of the many developments of processing and refining facilities (smelters). It is recorded that for nickel through the pyrometallurgical process in Indonesia or those that process high-grade nickel, there are 44 smelters, while for nickel through the hydrometallurgical process that processes low-grade nickel, there are 3 smelters.<sup>2</sup>

Another fact is that many mining activities do not practice *good mining practices, especially if the mining is carried out by mining service companies* and mining service companies have the freedom to carry out mining activities without strict control from mining companies. There are several patterns of cooperation between mining companies and mining service companies. The pattern of cooperation that gives full authority to mining service companies causes a lot of environmental damage. In fact, good mining *practices* are no longer just an obligation that must

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<sup>1</sup>Menteri ESDM'Menteri ESDM Hentikan Eskpor Mineral MentahMinister of Energy and Mineral ,<<https://www.menpan.go.id/10-juni-2023>>

<sup>2</sup>Firda Dwi Muliawati, ' Cadangan Nikel RI Cuma Tahan 6 Tahun,' <<https://www.cnbcindonesia.com/news/ 19 October 2023>>

be fulfilled by mining companies and mining service companies. Furthermore, in the current era, many companies are realizing that environmental, social, and governance factors are prerequisites for sustainable corporate business.<sup>3</sup> As a result, mining occurs almost throughout Indonesia. Environmental damage also occurs in areas of mining activity. The Indonesian Environmental Forum (WALHI) revealed that mining activities are one of the factors that have decreased the quality and accelerated the rate of environmental damage in West Java. The existence of mining not only changes the function and landscape, but also has an impact on the social conditions of the community living in the area around the mine.<sup>4</sup>

The Bangka Belitung Islands are a fairly large Tin and Quartz Sand mining area in Indonesia. Environmental damage due to tin mining is one of the problems faced by Bangka Regency, Bangka Belitung Islands Province. As the largest tin-producing area in the world, former tin mining land is not suitable for development because it has a fairly low fertility rate with high soil acidity (pH), low nutrient availability, and poor soil chemical properties.<sup>5</sup> Not to mention the massive illegal Tin mining activities that occur.

Kalimantan, Indonesia's largest island, has been the center of intensive mining activities in recent decades. Extensive and uncontrolled mining activities have caused serious environmental pollution and significant negative impacts on natural ecosystems and surrounding communities. The environmental damage faced includes: (1). Air Pollution: One of the most visible impacts of mining is air pollution. Coal mining activities and emissions from vehicles and machinery used in the process produce toxic gases such as sulfur dioxide, nitrogen dioxide, and harmful dust particles. This air pollution can cause breathing problems, respiratory diseases, and even death in humans and animals. Air pollution can also damage crops and forests, reduce soil quality, and disrupt the balance of ecosystems.(2). Water Pollution: Mining activities also cause serious water pollution. Uncontrolled dumping of mining waste and the use of chemicals such as mercury and cyanide in metal processing can pollute rivers and surface water sources. This pollution can damage aquatic ecosystems, poison fish and other aquatic life, and have adverse effects on the health of humans who use the water for drinking and daily needs. In addition, water pollution also disrupts

<sup>3</sup>npas,Praktik Pertambangan Yang Baik Menjadi Keniscayaan,'  
<<https://www.kompas.id/baca/ekonomi/2023/10/29/>>

<sup>4</sup>Walhi, A 30vitas Tambang Jadi Faktor Utama Kerusakan Lingkungan di Jawa  
58'arat,'<<https://www.liputan6.com/regional/read/4146732/> 03 Jan 2020>

<sup>5</sup>Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi, Tanggulasi Kerusakan Lingkungan di Kabupaten Bangka Lewat Gerbang Lestari.<<https://www.menpan.go.id/> 04/04/ 2022>

agriculture, destroys aquatic habitats, and reduces the availability of clean water for local communities.

(3). Deforestation: Mining activities in Kalimantan have also caused extensive deforestation. Forests that serve as habitats for diverse flora and fauna have been destroyed to make room for mining. Large-scale logging and forest burning lead to loss of biodiversity and disrupt the balance of the ecosystem. Deforestation affects global climate change because the carbon stored in trees is released into the atmosphere.<sup>27</sup> (4). Ecosystem Damage: The complex ecosystem in Kalimantan has been seriously damaged by mining activities. Pollution, deforestation, and habitat destruction threaten the survival of various animal and plant species, including endangered species. When ecosystems are disturbed, interactions between organisms are disrupted, food chains are broken, and the harmony of nature is disrupted.<sup>6</sup> (5). Social Impacts: Deforestation affects global climate change because the carbon stored in trees is released into the atmosphere.<sup>27</sup> Many indigenous communities lose their lands due to mining expansion, leading to economic losses and loss of their cultural identity. In addition, miners working in dangerous and inadequate conditions often face serious health and safety issues. These social impacts create injustice and tension in communities.

Sulawesi is rich in nickel mines. The Indonesian Ombudsman revealed some findings from the Mandiodo Block nickel mine in North Konawe (Konut) Regency, Southeast Sulawesi (Sultra) related to the serious environmental impacts caused by illegal nickel mining. There were complaints from residents and environmental conditions in the mining area. In Tapumea Village, the Ombudsman found the fact that before mining activities, most of the community worked as farmers and fishermen. However, currently the community can no longer go to sea and farm because the sea waters around the Mandiodo Block have been polluted by mining activities. In addition, agricultural land has been converted into mining land. Another environmental impact is coastal shallowing due to the lack of mining management by the company. There are at least 11 Mining Business Permits (IUP) that previously exploited the Mandiodo Block. In addition, the lack of maintenance of public roads from both the company and the government means that local people have never experienced decent roads in their village. A similar thing also happened in Tepunggaya Village. Meanwhile, in Mandiodo Village, the Ombudsman found the fact that

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<sup>6</sup>KBK News, Kerusakan Lingkungan Akibat Tambang dan Pematatan Hutan di Kalimantan Memprihatinkan, <<https://kbk.news/07/17/2023>>

exploitation activities had started in 2007, but there were no CSR programs from private mining companies.<sup>7</sup>

For companies whose business activities are in the field of natural resource management and whose business activities have a direct impact on natural resources, corporate social and environmental responsibility (TJSL) becomes an obligation. TJSL is a company that promises to the community and environment around the company. <sup>33</sup> Companies do not only focus on making profits, but companies sacrifice the environment and socio-economic conditions of the surrounding community. Mining companies engaged in managing natural resources must be responsible for their mining activities so that the environment is maintained and the social and economic conditions of the community become better than before.<sup>8</sup>

Mining activities are activities that damage the natural landscape during the production stage, therefore requiring restoration of environmental quality at the end of production with the target of minimizing the negative impacts caused after mining. The reclamation obligation was originally <sup>1</sup> the responsibility of the mining company at the end of its mining activities. However, sometimes this is not done completely and some are even left untreated, so that it doesn't get worse, real action is needed so that reclamation can be carried out immediately.<sup>9</sup>

Environmental damage is magnified by the large number of unauthorized activities in <sup>63</sup> mining areas. The impact of illegal mining activities is divided into two parts, namely the impact on the environment and the impact on humans themselves. The impact on the environment concerns the impact on air, water, land, erosion, and ecosystems, while the impact on humans themselves can threaten work health and safety and even the loss of someone's life.<sup>10</sup>

The research conducted by Anggaa, Syafrudin, and Syaefudin is limited to corporate social responsibility and the environment, the consequences of consideration activities including consideration without permission on the environment and surrounding communities but have not

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<sup>7</sup>Ombudsman, Ombudsman RI Ungkap Temuan Tambang-Tambang Nikel Blok Mandiodo di Konawe Utara Sulawesi Tenggara Indonesian, <<https://ombudsman.go.id/news/r/01/23/2024>>

<sup>8</sup>La Ode Anggaa, Theresia Nolda Agnes Narwadanb, Shafril Keliang, Rini Atbard, "Penerapan Tanggung Jawab Sosial dan Lingkungan Oleh Perusahaan Migas Peseroan Terbatas Karlez Petroleum," *Bina Mulia Lingkungan*, Volume 7, Number <sup>13</sup>23, p.1.

<sup>9</sup>Syafrudin, "Pelaksanaan Reklamasi lahan bekas tambang di Provinsi Kepulauan Bangka Belitung Melalui <sup>12</sup>peraturan Whole of Government," *Journal of Public Policy and Applied Administration* Vol. 3 No. 1 Maret 2021

<sup>10</sup>Muhammad Agus Fajar Syaefudin dan Fajar Ari Sudewo, "Penegakan Hukum Terhadap Tindak Pidana Pertambangan Mineral dan Batubara Ilegal di Kota Cirebon," *Diktum Jurnal Ilmu Hukum*, Volume 8 No. 1 | Mei 2020

touched on the causes of downstream policies and legal solutions. Due to this, this research focuses on the correlation between downstream policies, consideration of activities that do not implement good mining practices, and analysis of opportunities for reclamation in other forms.

## 2. METHOD

This study uses a normative legal method by examining <sup>36</sup> secondary data sources that include primary legal materials, such as laws and regulations related to cooperation, good mining practices, and downstream. <sup>61</sup> Secondary legal materials such as books and journal articles that discuss considerations, good mining practices, and downstream. Electronic documents in this study are considered tertiary legal materials. The normative legal research method is a method that is commonly used in legal research. According to Soekanto and Sri Mamudji, normative legal is a legal research that studies various sources of literature or secondary data, or known as library legal research.<sup>11</sup>

The collected data were analyzed using qualitative legal methods. Qualitative legal is an assessment of the results of data processing that is not in the form of numbers by emphasizing legal analysis in the deductive and inductive conclusion process through the use of formal and argumentative thinking methods.<sup>12</sup> By conducting qualitative legal analysis, the aim is to examine cooperation in mining activity cooperation, good mining practices, and downstream.

## 3. RESULTS AND DISCUSSION

### 3.1 Cooperation between Mining Companies and Mining Services Companies and the Urgency of the Obligation to Implement *Good Mining Practices*

National development has been carried out by the Indonesian Government. <sup>19</sup> In order to achieve national development goals, it is necessary to empower natural resources managed by the <sup>19</sup> Central Government, Regional Government, and private communities.<sup>13</sup> The current mineral and coal management system has undergone a very fundamental change, which originally used a work contract system for mineral considerations and a coal mining entrepreneur work agreement (PKP2B) for coal mining, but now the management system has changed to a permit form. The mineral and coal management permits currently known include Special Mining Permits (IUPK).

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<sup>11</sup> Soerjono Soekanto and Sri Mamudji, *Pengantar Penelitian Hukum Normatif*, Jakarta: RajaGrafindo Persada,

<sup>44</sup> 5.

<sup>12</sup> M.Syamsuddin, *Operasionalisasi Penelitian Hukum*, Jakarta : Grafindo Persada, 2007.

<sup>13</sup> Dani Prianto Hadi, *Implementasi Hukum Pertambangan di Indonesia*, Purbalingga: Eureka Media Aksara, 2022, hlm.1.

<sup>14</sup>However, until now there are still companies considering work contract permits and PKP2Bs that still have a remaining term.

Mining activities can be carried out by the mining company itself or can be carried out by other parties through a cooperation system. Of the many companies that are given mining permits, the majority use mining service companies. The cooperation pattern in mining activities can be used with a joint operation model (KSO) with other mining companies. The position between the mining company and the KSO partner is equal. The mining company gives full rights to the KSO partner company in carrying out mining activities. This pattern has a weak point, namely the absence of control authority from the mining company over mining activities carried out by the mining service company with a coordinative relationship. This pattern does not provide balance for the parties, especially for mining companies because environmental damage caused by mining activities is all on the mining company as the owner of the permit from the government in carrying out mining activities in its mining business permit area.

Another pattern of cooperation is a pattern of cooperation with a subordinate relationship as part of the supply chain. The mining service company will <sup>3</sup> only carry out mining activities on the orders and control <sup>3</sup> of the mining company. The relationship between the mining company and the mining service company is not equal. Here, there is a pattern where the mining company is the party that orders and controls the mining service company, while the mining service company will <sup>3</sup> only carry out mining activities on the orders <sup>3</sup> of the mining company and under the control of the mining company. The mining service company does not have the full ability to act in <sup>3</sup> carrying out its mining activities. All mining activities by the mining service company are under the full control of the mining company.

Law No.4 of 2009, if seen from its contents, is one of the *green legislation* *Green legislation is a manifestation of the green constitution*.<sup>15</sup> Green legislation is a manifestation of the green constitution.<sup>16</sup> Jimmly Asshiddiqie put forward <sup>6</sup> the idea of the importance of a green constitution, environmental sovereignty and the concept of ecocracy to support sustainable development.<sup>17</sup> This can be traced from the principles in Law No. 4 of 2009 as regulated in Article 2, namely benefits,

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<sup>14</sup>Salim <sup>6</sup>*Hukum Pertambangan Mineral dan Batubara*, Jakarta: Sinar Grafika, 2014, p.1.

<sup>15</sup>Arief Hidayat, *Bernegara Itu Tidak Mudah*, Pidato Pengukuhan Jabatan Guru Besar Ilmu Hukum Fakultas Hukum Undip, Undip, Semarang 4 February 2010

<sup>16</sup>*Ibid*.

<sup>17</sup>*Ibid*.



34 justice and balance; siding with the interests of the nation; participatory, transparency and accountability; sustainability and environmental insight are 22 the principles of mineral and coal management. The first principle is multidimensional. This means that benefits, fairness and balance cover many aspects, namely economic, social, cultural, environmental and other aspects. The second principle shows an attitude of nationalism and sovereignty over the use and results of mining management, as well as anti-foreign interference. The third principle demands that mining management involve the community, be open and responsible. The fourth principle states that there is a need for environmental and socio-cultural economic compatibility in efforts to consider minerals and coal in realizing community welfare.<sup>18</sup>

Article 124 of Law No. 3 of 2020 regulates that local and/or national consideration companies must be used by mining companies holding IUP or IUPK. 15 The use of foreign investment mining service companies is carried out if there are no local and/national consideration companies. If there are no IUP or IUPK holders, they are required to use local and/or national 15 mining services companies. Mining services businesses consist of implementing services 14 in the fields of: General Investigation, Exploration, Feasibility Studies, Mining Construction, Transportation, Mining environment, Reclamation and Post-mining, safety. Mining; and/or Mining. 55 The use of local and/or national mining service companies is carried out based on a) The proximity of the location of mining business activities to the presence of mining service companies in the district/city, province and other provinces. b) Mining Services company status as a domestic investment company.<sup>19</sup>

Mining activities must be based on the principles of Good Mining Practices. Good Mining Practices basically carries out mining operations from the exploration stage for mineral deposits which is carried out with a feasibility study and ends at the post-mining land reclamation and revegetation stage. Good Mining Practice is a mining system that follows and complies with the rules and is well planned. This obligation is stated in Article 3 18 of the Minister of Energy and Mineral Resources Regulation No. 26 of 2018. Good mining rules include: good mining engineering rules and mining business governance. This obligation also applies to holders of IUP OP Processing and Refining (Article 4) and holders of mining service businesses (Article 5).

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<sup>18</sup>Dwi Haryadi, *Pengantar Hukum Pertambangan Mineal dan Batubara*, Malang: UBB Press., 2018, p.24.

<sup>19</sup>Peraturan Pemerintah No. 96 of 2021

The obligation to carry out good mining activities for companies holding IUP OP Processing and Refining includes technical aspects of Processing and/or Refining activities, Processing and/or Refining safety, environmental and post-operation management, as well as Mineral and Coal conservation. Meanwhile, mining service companies include environmental management efforts, mining safety, Mineral and Coal conservation, and mining techniques by their business field; and the obligation to appoint the person responsible for operations as the highest leader in the field.

The obligation has administrative sanctions as regulated in Article 50 in the form of: written warnings; temporary suspension of some or all business activities; and/or revocation of permits. The sanction of revocation of business permits is the most severe administrative sanction because once the business permit is revoked, mining companies, mining service companies, processing and refining companies, mining and coal mineral transportation companies, mineral and coal trading companies will legally stop carrying out their business activities.

Strategies to ensure the implementation of good mining principles in mineral and coal mining business activities must determine success criteria, and pay attention to and consider national and global climate change so that operational productivity can run optimally.<sup>20</sup> Indonesia is very rich in mineral and coal natural resources, Indonesia is also recorded as an agricultural country with a tropical climate that has quite large and diverse biological resources. Indonesia is also on the equator, in a country with the threat of natural disasters and climate change. For this reason, risk mitigation in mining activities, and the mining cooperation patterns implemented must be a serious concern for all mining stakeholders in Indonesia, both the government as regulators and constitutional mandate holders from the community in the management of natural resources, mining companies, mining service companies, communities, environmental activities.

### **3.2 Downstream Policy to Increase Added Value and Employment Opportunities**

Downstreaming is a process of sustainable economic transformation in which industrialization policies are based on high-value-added commodities, towards a more complex economic structure. The core of downstream is increasing added value. Increasing added value should be carried out by the Indonesian Government in carrying out the mandate of the constitution

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<sup>20</sup>Direktorat Pembinaan Program Mineral dan Batubara (2021). *Kebijakan Mineral dan Batubara Indonesia*. Jakarta: Kementrian ESDM. hlm.12

and laws and regulations. Downstreaming can be in the form of processing and refining. Downstreaming is the right and bold step taken by the government to improve people's welfare. Although there is a possibility of an impact on declining exports and absorption of domestic mining materials, this does not dampen the policy which is considered without other alternatives. If Indonesia continues to be an exporter of mining raw materials, then gradually the natural wealth in the mining mineral sector will be eroded without leaving significant profit for the progress of Indonesia's development. So the downstreaming policy in the mining sector is a breakthrough that risks the under-absorption of the processed mining results. However, this choice is minus malum (the least risk) for a condition without other choices, the government must take this bold policy if it does not want to be trapped in a condition of losing more severe mining potential. As if breaking through the constraints of the global mining business system, Indonesia confidently places the long-term interests of the Indonesian people above the interests of the temporary regime.<sup>21</sup>

Processing is an effort to improve the quality of Mineral mining commodities to produce products with physical and chemical properties that do not change from the nature of the original mining commodity to be refined or become industrial raw materials. Refining is an effort to improve the quality of Mineral mining commodities through physical and chemical processes and further purity improvement processes to produce products with different physical and chemical properties from the original mining commodity to metal products as industrial raw materials.

The obligation to build smelters for mining companies is also mandated by Law Number 4 of 2009. Work contract holders (KK) are also prohibited from selling minerals abroad without going through processing and refining processes domestically. This obligation is regulated in Article 102. Explains that holders of Mining Business Permits (IUP) and Special Mining Business Permits (IUPK) are obliged to increase the added value of mineral and/or coal resources in the implementation of mining, processing and refining, as well as utilization of minerals and coal. Then Article 103 regulates further, namely that holders of Production Operation IUP and IUPK are obliged to process and refine mining products domestically.

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<sup>21</sup>Armadani Rizki Illahi, "Hilirisasi Pertambangan dan Dampaknya Terhadap Aspek Ekonomi Lingkungan Hidup di Indonesia,," *Jurnal Justitia* , vol.9 no.3.2022.

Mineral downstream is intended to give Indonesia sovereignty in providing raw materials for the manufacturing industry in Indonesia, which so far has only been imported. The construction of domestic processing and refining facilities will be able to meet the needs of raw materials for the national manufacturing industry, the effect of which will certainly be very significant for improving the economy of the Indonesian people.<sup>22</sup> Downstream policies can foster innovation, breakthroughs, mastery and development of science and technology to increase the capacity and competence of highly competitive human resources. Activities to increase added value to the maximum in the context of national industrial and economic development, so that the management and utilization of minerals and coal are managed domestically including associated minerals, strategic minerals/critical minerals, and rare earth metals. As well as optimal management and utilization of residual processing and refining results for national development. The policy of increasing the added value of minerals and coal including associated minerals, strategic minerals/critical minerals, and rare earth metals used in the processing and/or refining process into products or semi-products that can be used as raw materials for industry, manufacturing industry, and/or energy sources. The application of the value chain concept in activities to increase the added value of minerals and coal can be expected to provide benefits and a snowball effect that will be felt by the upstream, downstream, side, and other related sectors.<sup>23</sup>

The downstream policy of stopping the export of raw minerals in several commodities has resulted in a decrease in state revenue from export duties from 2021 to 2023.<sup>24</sup> However, this decrease is offset by state revenue from income tax and value-added tax which is quite large. Minister of Investment/Head of the Investment Coordinating Board (BKPM) Bahlil Lahadalia said that the downstream policy and the ban on nickel exports that have been carried out by the government since 2020 have succeeded in generating profits of up to US\$ 30 billion or equivalent to Rp450 trillion (assuming an exchange rate of Rp15,000 per US\$).<sup>25</sup> According to Joko Widodo, President of the Republic of Indonesia, when raw minerals are exported, they produce approximately only Rp17 trillion a year, then after entering the downstream industry, downstream

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<sup>22</sup> Mdani, Ahmad Helman, The research design of downstream minerals and processing locations in Indonesia, International Conference on Tropical Resources and Sustainable Sciences, CTReSS 5.0 2023 Kelantan 7 August 2023 through 8 August 2023

<sup>23</sup> *Ibid*, p.14.

<sup>24</sup> Kompas, 'Simalakama Hilirisasi dan Terganjalnya Penerimaan Negara,' <<https://www.kompas.id/baca/ekonomi/2023/09/26/>>

<sup>25</sup> CNBC Indonesia, Hilirisasi Jokowi Untuk 10 kali lipat, <<https://www.cnbcindonesia.com/news/20230704074459-4-450955/> July 4, 2023>.

becomes Rp510 trillion.<sup>26</sup>The growth of the mineral and coal processing and refining industry in Indonesia affects increasing the need for human resources.

The current downstream policy has only reached semi-finished products, not finished products. To reach finished products, further processing is required. The downstreaming policy must be carried out with consideration of sustainability aspects, do not let downstreaming be carried out without a clear direction so that the benefits obtained in the short term are not comparable to the long-term losses which are greater, such as environmental damage.

### 3.3 Mining companies' obligations to carry out reclamation and its implementation

Development in Indonesia has unknowingly hurt the quality of Natural Resources (SDA) because on several occasions, natural resources are used to finance development activities without paying attention to environmental and community protection and management.<sup>27</sup> Companies that obtain mining business permits are required to carry out post-mining reclamation. Reclamation is an activity to organize and repair the ecosystem and environment after mining so that it functions again according to its intended purpose. The calculation is direct costs in the form of land management, revegetation, acid mine water, and maintenance. Companies must also carry out land management, and revegetation of land management. Mining companies have a great responsibility in carrying out mine reclamation to ensure that ex-mining land can be restored properly and contribute to the restoration of the environment and local communities.

This reclamation guarantee fund is the government's way of making mining companies responsible after mining is complete. This fund is obtained before mining activities begin. This means that mining entrepreneurs first save their reclamation guarantee funds before mining. The reclamation guarantee covers both exploration activities and production operations. The guarantee is a confirmation of the mining company's commitment to restore its original condition in order to realize sustainable development.<sup>28</sup>

<sup>26</sup> CNBC Indonesia, Dicitir Faisal Basri Nilai Pajak Hilirisasi Melejit 10 kali  
[at.<https://www.cnbcindonesia.com/news/2023081410481-4-462678/](https://www.cnbcindonesia.com/news/2023081410481-4-462678/) August 14, 2023>

<sup>27</sup> Hikmah Zougiraa, Yeni Widowatyb, Eko Priyo Purnomoc, Hafizah, Perlindungan Hukum Terhadap Masyarakat dan Lingkungan Akibat Dari Reklamasi Pantai Manado , *Bina Mulia Lingkungan*, Volume 7,   
 4umber 3, June 2023, p. 5

<sup>28</sup> Irsan, Helmanida, Yunial Laily Mutiasari “Kebijakan Reklamasi Pasca Tambang Sebagai Bentuk Pengendalian Lahan Bekas Tambang Batubara Ditinjau Dari Kewenangan Otonomi Daerah di Sumatera Selatan,” *Galang Journal* , Sriwijaya University , 2016 .

Mining companies with exploration permits have an obligation to place a reclamation guarantee at the exploration stage in a predetermined amount. The Reclamation Guarantee is placed at the beginning in accordance with the work plan and reclamation cost budget no later than 30 calendar days. The Reclamation Guarantee for this stage is in the form of a Time Deposit placed in a Government bank in Indonesia in the name of the Director General or governor QQ who holds the IUP. Placing collateral does not negate the mining company's obligation to carry out reclamation. Any shortfall in costs to complete reclamation remains the responsibility of the exploration permit holder. Changes in the amount of reclamation guarantees rest with the Minister or governor in accordance with their authority provided that there is a change in the reclamation plan or the implementation costs are not in accordance with the plan.<sup>29</sup>

Mining companies in the production operation stage are required to provide reclamation guarantees in a predetermined amount. The placement mechanism is carried out entirely for the first 5 years and for the next 5 years according to the life of the mine. Placement of collateral can be in the form of a joint account or time deposit placed in a Government bank in Indonesia in the name of the Director General or governor and the Holder of Production Operation IUP or Production Operation IUPK. Placement of reclamation guarantees can also be done through bank guarantees issued by Government Banks in accordance with the production operation phase schedule.<sup>30</sup>

The commitment to carry out reclamation is concentered by providing a reclamation guarantee in the form of a deposit certificate which can be cashed out if the reclamation obligation has been declared 100% successful, but on the other hand the reclamation guarantee will be taken by the Government to carry out reclamation if the mining company is not successful in carrying out 100% reclamation. For IUP and IUPK holders whose business permits have been revoked or expired but have not carried out reclamation and post-mining or have not placed reclamation and post-mining guarantees, they can be sentenced to imprisonment for a maximum of five years and a fine of up to one hundred billion rupiah. In addition, IUP and IUPK holders may be subject to additional penalties in the form of paying fines.<sup>31</sup>

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<sup>29</sup> *Ibid.*

<sup>30</sup> *Ibid.*

<sup>31</sup> Kementerian ESDM, *Lebihi Target, Reklamasi Pascatambang Garap 7.920,77 Hektar di 2023*, Kamis, 18 Januari 2024, <<https://www.esdm.go.id/id/>>18/01.2024

The implementation of reclamation includes 3 criteria, namely: a) land management, b) erosion and sedimentation control, and (c) revegetation. Land management is in the form of refilling holes from mining excavations, the area being managed, and land stability. Erosion control is an activity that must be carried out during and after mining activities. Erosion can result in reduced soil fertility, the occurrence of mud deposits and sedimentation in river channels. Revegetation is part of reclamation activities, an effort to repair and restore damaged vegetation on ex-mining land through planting and maintenance activities on land that was formerly used as a forest area. Vegetation must adapt to the natural environment, and adjust to the habits of vegetation and its species that are adjusted to physiological and ecological conditions.<sup>32</sup>

The Director General on behalf of the Minister or governor with his/her authority before approving the disbursement of the Reclamation Guarantee for the Exploration stage is required to evaluate the implementation report for the Reclamation for the Exploration stage after the Feasibility Study document is approved. The disbursement of the Reclamation Guarantee for the Exploration stage can only be done after the assessment results reach a value of 100% (one hundred percent).

Data from the Ministry of Energy and Mineral Resources shows that until now, many mining companies have not placed reclamation guarantees. The Director General of Mineral and Coal at the Ministry of Energy and Mineral Resources said that most companies that have not placed reclamation guarantees are Mining Business Permit, Domestic Investment (IUP PMDN) companies. Of the 4,524 companies, 4,403 are IUP PMDN, of which 1,283 have and the remaining 3,120 have not placed post-mining guarantees.<sup>33</sup> The large number of mining companies that have not placed post-mining reclamation guarantees shows that many mining companies do not comply with the provisions of laws and regulations so the Government should take firm action to impose sanctions. There has been no disbursement of reclamation guarantees before the reclamation is declared 100% successful. This must be prevented to ensure that the reclamation process can be carried out according to the approved reclamation plan.

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<sup>32</sup> Irfan Ido, Kamrullah, Irfan Yunandar, LO Ngkoimani, Ardi, "Kajian Keberhasilan Reklamasi Pada Lahan Bekas Penambangan Bijih Nikel di Kabupaten Konawe Selatan," *Jurnal Geografi Aplikasi dan Teknologi*, vo.6 No.1, 2022.

<sup>33</sup> Eksplorasi.id, "Ribuan Perusahaan Tambang Belum Bayar Jaminan Reklamasi dan Pascatambang", <<https://eksplorasi.id/date 23 August 2019>>

Another form of reclamation is an alternative step in utilizing former mining areas in ways other than revegetation but can be used for other things for the benefit of the wider community. This is because not all ex-mining areas can be revegetated<sup>34</sup>Ex-mining land has various topographical and hydrological characteristics depending on the type of mining material and the method of mining carried out. Ex-mining locations with poor land structure result in various problems such as wavy/bumpy land with piles of overburden, tailings scattered sporadically, the dominant texture being very coarse (sand or coarser) or very fine (heavy grit), many former mine holes, small in size. and scattered sporadically, cover rock is potentially acid forming (PAF), the emergence of Acid Mine Water (AAT), dry climate conditions, and ameliorant materials to improve the quality of planting media are difficult to obtain.<sup>35</sup>

Based on Minister of Energy and Mineral Resources Decree No. 1827 K/30/MEM/2018, reclamation activities at the Production Operations stage can be carried out in the form of revegetation and/or other uses such as cultivation areas, water sources, residential areas, or tourism. Even though the Minister's decision has been revoked, it has been partially revoked, namely by the Decree of the Minister of Energy and Mineral Resources Number 111.K/MB.01/MEM.B/2024 concerning Guidelines for Applications, Evaluation and Approval of the Reopening of Reclaimed Areas in Mining Business Activities and Coal. Thus, reclamation in other forms is still open. The open opportunity for reclamation in other forms in statutory regulations is the weak point of these regulations and is not in line with the reclamation obligation with a 100% success rate. Reclamation and post-mining are intended to return to the original condition before the consideration activity. Regulations that allow reclamation in other forms need to undergo a judicial review so that existing regulations can be in line both vertically and horizontally.

#### 4. CONCLUSION

The pattern of cooperation between mining companies and mining service companies in the form of KSOs is not appropriate to implement because the parties have a coordinating position and give too much freedom to mining service companies in carrying out mining activities while the

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<sup>34</sup> Bappeda Provinsi Kalimantan Timur, FGD Reklamasi Bentuk Lain di Kalimantan Timur, <<https://bappeda.kaltimprov.go.id/>>/05/02/2022.

<sup>35</sup> Dirjen PPKL, *Petunjuk Teknis Pemulihan Kerusakan Lahan Akses Terbuka Akibat Kegiatan Pertambangan*. Jakarta: Direktorat Jenderal Pengendalian Pencemaran dan Kerusakan Lingkungan, 2016.



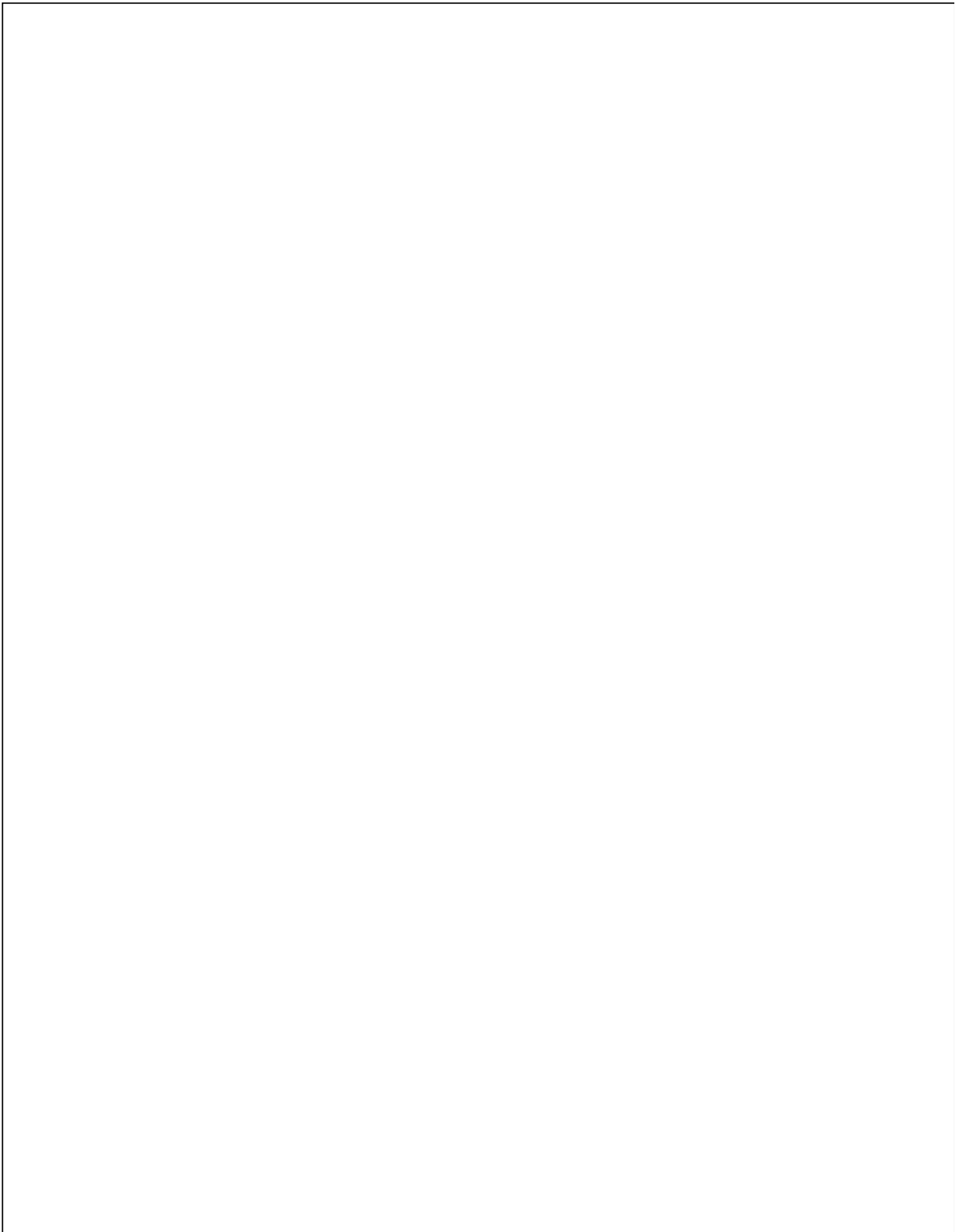
mining company is responsible for the consequences of mining. Mining companies, mining service companies, and processing and refining companies are required to implement good mining practices. This is very important to maintain environmental damage by being monitored by all existing stakeholders through consistent and firm sanctions. Hirization policies are not well planned and implemented inconsistently, which of course impacts the target of increasing added value and increasing employment opportunities being less than optimal. Reclamation and post-mining obligations must be monitored and implemented consistently, including the need to evaluate reclamation in other forms that are less in line with the objectives of reclamation and post-mining, namely returning to conditions before mining activities.

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