



Reclamation Efforts and Post-Mining Activities on Ex-Mining Land

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Abstract

This study discusses the implementation of post-mining reclamation efforts on ex-mining land in Indonesia. There are already laws and regulations governing reclamation and post-mining on ex-mining land. However, there are still many mining entrepreneurs who violate these regulations and leave the ex-mining land without doing reclamation. There needs to be a breakthrough from the government itself so that post-mining reclamation can run smoothly to restore the function of former mining forest areas and create prosperity for the community.

Keywords

Inconsistency, Post-mining, Mining, Reclamation

Introduction

The wealth of natural mineral resources and coal (minerba) in Indonesia is a gift from God. Mineral and coal natural resources are an attraction for the mining sector. Indonesia's wealth of mineral and coal makes the mining sector contribute quite a lot to state revenues. In 2020, Non-Tax State Revenue (PNBP) reached more than 70% for the non-oil and gas sector. However, the maximum utilization of mineral and coal resources is obligatory for the prosperity and welfare of the people as contained in Article 33. Things like this cause a lot of big losses for Indonesia. In particular, environmental damage to forests is a very visible big loss. This is because mining requires vacant land to carry out excavations which will damage the environment.

paragraph (3) of the 1945 Constitution of the Republic of Indonesia.¹ The high utilization of mineral and coal resources has led to the establishment of many mining companies. In fact, there are illegal mining companies that do not have Mining Business Permits (IUP)

Method

The author's study is normative or doctrinal and is intended to be prescriptive. A statutory strategy is used to conduct this research. Primary legal resources and secondary legal materials are the sources of law that were used. Statutory rules make up primary legal materials, whereas literature study materials make up secondary legal materials. Deductive reasoning is used in the data analysis process.²

Research Results and Discussion

Not all land has mineral and coal resources in it. There are research that must be done to determine the mining area in order to get the right area containing mineral and coal wealth in it. In addition, to avoid disturbance to the public³. The issuance of permits and mining areas has been regulated in the Regulation of the Minister of Energy and Mineral Resources of the Republic of Indonesia Number 7 of 2020 concerning Procedures for Granting Areas, Licensing, and Reporting on Mineral and Coal Mining Business Activities. Forests are often land used for mining. Mining in Kalimantan covers an area of 6,028,414 hectares located in forest areas. Forests have the availability of biodiversity in them which is very beneficial for humans. In addition, forests also have the potential to meet economic, socio-ecological, and cultural needs. In addition to the wealth contained in it, the forest area is far from residential areas⁴. Mine excavation should be followed by a post-mining reclamation plan to restore the environment that has been damaged by the mining excavations that have been carried out. Reclamation and post-mining have been regulated in the Minister of Energy and Mineral Resources Regulation Number 7 of 2014 concerning the Implementation of Reclamation and Post Mining in Mineral and Coal Mining Business Activities and the Minister of Energy and Mineral Resources Regulation Number 34 of 2017 concerning Licensing in the Mineral and

1 Abdul Kodir and others, 'Integrated Post Mining Landscape for Sustainable Land Use: A Case Study in South Sumatera, Indonesia', *Sustainable Environment Research*, 27.4 (2017), 203–13 <<https://doi.org/10.1016/j.serj.2017.03.003>>.

2 Theresia Anita Christiani, 'Normative and Empirical Research Methods: Their Usefulness and Relevance in the Study of Law as an Object', *Procedia - Social and Behavioral Sciences*, 219 (2016), 201–7 <<https://doi.org/10.1016/j.sbspro.2016.05.006>>.

3 Adator Stephanie Worlanyo and Li Jiangfeng, 'Evaluating the Environmental and Economic Impact of Mining for Post-Mined Land Restoration and Land-Use: A Review', *Journal of Environmental Management*, 279 (2021), 111623 <<https://doi.org/10.1016/j.jenvman.2020.111623>>.

4 Devi Triasari, 'Right to Sanitation: Case Study of Indonesia', *Journal of Human Rights, Culture and Legal System*, 1.3 (2021), 147–63 <<https://doi.org/10.53955/jhcls.v1i3.20>>.

Coal Mining Sector.⁵

Mining can be a driving force for the economy in Indonesia, but on the other hand it is a factor causing forest deforestation. There are still many mining practice actors who do not carry out post-mining reclamation obligations in forests that have been used for mining excavations. Although there are already laws and regulations related to reclamation and post-mining, the implementation of reclamation often fails for various reasons such as no reclamation plan, coal content that has not been collected as a whole, lack of compliance with the obligation to place reclamation guarantee funds. So it is worth asking about the existence of legislation related to reclamation and post-mining in Indonesia.⁶

Mining behavior often ignores environmental aspects so that post-mining damage is widespread and uncontrollable. Environmental damage due to mining will have a negative impact on the next generation if it is not immediately reclaimed.⁷ Reclamation is an obligation that needs to be carried out to organize, restore, and improve the quality of the environment and ecosystem so that it can function properly. In addition, post-mining activities also need to be carried out because they function to restore the functions of the natural and social environment according to local conditions. These two things have been contained in the Regulation of the Minister of Energy and Mineral Resources Number 7 of 2014 concerning the Implementation of Reclamation and Post Mining.⁸

Reclamation and post-mining are mandatory activities for mining companies that already have IUP and IUPK. Mining Business Permits are granted by the government. However, small companies still have difficulty obtaining mining permits. This triggers the occurrence of illegal mining behavior carried out by these small companies⁹. Many mining companies that already have IUPs still ignore their reclamation obligations and post-mining activities. It is clear that illegal mining behavior will only care about its mining interests and ignore the environment it has damaged.¹⁰

Forest areas in Indonesia have suffered a lot of damage, one of which is caused by mining. The deteriorating condition of the forest makes it difficult for the

5 Iskandar Iskandar, Dyah Tjahyandari Suryaningtyas, Dwi Putro Tejo Baskoro, Sri Wilarso Budi, Imam Gozali, Agung Suryanto, and others, 'Revegetation as a Driver of Chemical and Physical Soil Property Changes in a Post-Mining Landscape of East Kalimantan: A Chronosequence Study', *CATENA*, 215 (2022), 106355 <<https://doi.org/10.1016/j.catena.2022.106355>>.

6 Iskandar Iskandar, Dyah Tjahyandari Suryaningtyas, Dwi Putro Tejo Baskoro, Sri Wilarso Budi, Imam Gozali, Saridi Saridi, and others, 'The Regulatory Role of Mine Soil Properties in the Growth of Revegetation Plants in the Post-Mine Landscape of East Kalimantan', *Ecological Indicators*, 139 (2022), 108877 <<https://doi.org/10.1016/j.ecolind.2022.108877>>.

7 Muhamad Muhdar, 'ASPEK HUKUM REKLAMASI PERTAMBANGAN BATUBARA PADA KAWASAN HUTAN DI KALIMANTAN TIMUR', *Mimbar Hukum - Fakultas Hukum Universitas Gadjah Mada*, 27.3 (2016), 472 <<https://doi.org/10.22146/jmh.15883>>.

8 Alvin Camba, 'The Unintended Consequences of National Regulations: Large-Scale-Small-Scale Relations in Philippine and Indonesian Nickel Mining', *Resources Policy*, 74. August (2021), 102213 <<https://doi.org/10.1016/j.resourpol.2021.102213>>.

9 Afif Syarif and Eko Nuriyatman, 'Penegakan Hukum Lingkungan Bidang Pertambangan Batubara Dan Penguatan Lembaga Masyarakat Adat', *Wajah Hukum*, 4.1 (2020), 8 <<https://doi.org/10.33087/wjh.v4i1.89>>.

10 Rezki Syahrir, Frances Wall, and Penda Diallo, 'Socio-Economic Impacts and Sustainability of Mining, a Case Study of the Historical Tin Mining in Singkep Island-Indonesia', *The Extractive Industries and Society*, 7.4 (2020), 1525-33 <<https://doi.org/10.1016/j.exis.2020.07.023>>.

community to take advantage of the function of the production forest and reduces water absorption. This is because mining management is not wise and does not consider the principle of forest function sustainability which has been contained in the applicable laws and regulations¹¹. Such behavior is a factor in the continued occurrence of deforestation in Indonesia from year to year.

It can be seen that there are ups and downs of deforestation in forest areas in Indonesia every year. This is one of the indications that there are inconsistencies in forest reclamation in post-mining Indonesia. This inconsistency of forest reclamation has resulted in an imbalance between forest recovery and forest destruction that continues to occur due to mining excavations. In East Java Province, 28.47% of forest cover occurred, while mining in forest areas continued to occur and increased the rate of deforestation so that it was more likely to cause environmental damage. The practice of reclamation and post-mining as an obligation is still ignored by mining actors¹². The irresponsible behavior of these mining actors has finally left the ex-mining areas that have damaged the forest and the surrounding environment. One of the largest ex-mining areas is in North Sulawesi, namely Mesel with a hole length of 700 meters, a width of 500 meters, and a maximum depth of 250 meters. Where the depth of the other mine pits is estimated to be as deep as 100-110 meters. This mesel hole is caused by PT. Freeport Indonesia, which is very unfortunate, they will only reclaim 15.4% of the former mining area¹³. There is a disproportionate balance between damage and recovery effort.

The implementation of post-mining reclamation as an effort to restore the functions of the ex-mining environment has been confirmed in Law no. 3 of 2020 amendments to Law no. 4 of 2009 concerning Mineral and Coal Mining (Minerba Law). In addition, it has also been structured in the Regulation of the Minister of Energy and Mineral Resources Number 7 of 2014 concerning the Implementation of Reclamation and Post Mining¹⁴. That the IUP holder needs to have a plan regarding reclamation before mining is carried out. In addition, when mining is carried out, the IUP holder must place a reclamation guarantee fund and a post-mining guarantee. The guarantee will be used by the government to carry out reclamation and/or post-mining through a third party as stated in Article 100 paragraphs (1), (2), and (3) of the Minerba Law¹⁵.

However, in reality, the implementation of reclamation guarantees, and

11 Yuwono Prianto and others, 'PENEGAKAN HUKUM PERTAMBANGAN TANPA IZIN SERTA DAMPAKNYA TERHADAP KONSERVASI FUNGSI LINGKUNGAN HIDUP', *Bina Hukum Lingkungan*, 4.1 (2019), 1 <<https://doi.org/10.24970/bhl.v4i1.80>>.

12 Robert Kurniawan and others, 'Eco-Environment Vulnerability Assessment Using Remote Sensing Approach in East Kalimantan, Indonesia', *Remote Sensing Applications: Society and Environment*, 27 (2022), 100791 <<https://doi.org/10.1016/j.rsase.2022.100791>>.

13 Tessa Toumbourou and others, 'Political Ecologies of the Post-Mining Landscape: Activism, Resistance, and Legal Struggles over Kalimantan's Coal Mines', *Energy Research & Social Science*, 65 (2020), 101476 <<https://doi.org/10.1016/j.erss.2020.101476>>.

14 Anom Wahyu Asmorojati and others, 'The Impact of COVID-19 on Challenges and Protection Practices of Migrant Workers' Rights', *Bestuur*, 10.1 (2022), 43 <<https://doi.org/10.20961/bestuur.v10i1.60179>>.

15 Dewi Nurul Savitria, 'Legal Policy on the Protection of the Right to Health during the Covid-19 Pandemic in France', *Bestuur*, 10.1 (2022), 1-11 <<https://doi.org/10.20961/bestuur.v10i1.64330>>.

post-mining guarantees is still often denied by IUP holders. This hinders post-mining reclamation. This behavior shows that there are still many IUP holders who are negligent and not responsible for their obligations as regulated in the applicable laws and regulations. Negligence of IUP holders on post-mining reclamation almost occurs in all regencies/cities that have mining areas in forest areas.¹⁶ In 2018 state losses due to environmental damage and no reclamation in forest areas reached Rp.3.036.000.000, - (three billion and thirty-six million rupiah). This loss is due to the implementation of the reclamation that is not running smoothly. Things like this always happen even though there is already supervision over mining¹⁷.

Initially, the supervision of mining was carried out by the district/city government. However, following the revision of the Minerba Law in 2020, supervision over mining was transferred to the central government. One of the causes for this is due to the low compliance of district/city regional obligations in reporting the issued IUPs¹⁸. However, on the other hand, supervision from the central government is still not optimal because there are still many ex-mining lands that are left without reclamation by the miners. The number of negligent IUP holders needs to be a correction for the government in granting IUPs to mining companies. The granting of permits to mining companies is very important because it will have an impact on various aspects in the future.

In addition to IUP holders, who have the responsibility to carry out post-mining reclamation, the government also has a big responsibility in efforts to restore the function of ex-mining lands, in this case, especially forest areas. The state has the right to control the resources that exist in the country as this is in accordance with Article 33 paragraph (3) of the 1945 Constitution. Ideally the government should be able to balance mining activities with post-mining reclamation as a form of state management¹⁹. However, in reality it can be said that the government failed to protect the environment from deforestation due to mining. The government has a big role in this because the government itself is the one who gives permits and supervision to mining²⁰.

The government has issued laws and regulations regarding reclamation and post-mining activities. However, violations continue to occur and there is still a lack of firm action against violators of post-mining reclamation obligations. This shows the government's inconsistency in restoring land functions, especially forest areas

16 Markus Anda and others, 'Reclamation of Post-Tin Mining Areas Using Forages: A Strategy Based on Soil Mineralogy, Chemical Properties and Particle Size of the Refused Materials', *CATENA*, 213 (2022), 106140 <<https://doi.org/10.1016/j.catena.2022.106140>>.

17 Paul Pelzl and Steven Poelhekke, 'Good Mine, Bad Mine: Natural Resource Heterogeneity and Dutch Disease in Indonesia', *Journal of International Economics*, 131 (2021), 103457 <<https://doi.org/10.1016/j.jinteco.2021.103457>>.

18 A. Arratia-Solar and others, 'Conceptual Framework to Assist in the Decision-Making Process When Planning for Post-Mining Land-Uses', *The Extractive Industries and Society*, 10 (2022), 101083 <<https://doi.org/10.1016/j.exis.2022.101083>>.

19 Julia Keenan and Sarah Holcombe, 'Mining as a Temporary Land Use: A Global Stocktake of Post-Mining Transitions and Repurposing', *The Extractive Industries and Society*, 8.3 (2021), 100924 <<https://doi.org/10.1016/j.exis.2021.100924>>.

20 Lian Sinclair, 'Beyond Victimisation: Gendered Legacies of Mining, Participation, and Resistance', *The Extractive Industries and Society*, 8.3 (2021), 100870 <<https://doi.org/10.1016/j.exis.2021.01.005>>.

that have become mining areas. Evidence of the government's inconsistency can also be seen from the data from the Director General of Forestry Planning and Environmental Management (PKTL) of the Ministry of Environment and Forestry that the mine obtained the release of forest area permits for borrow-to-use forest areas in 2014-2020 reaching 117,106 hectares²¹. The government's inconsistency in efforts to restore ex-mining forest areas will continue to result in losses.

Conclusion

The conclusions that can be drawn from the discussion above are the prevailing laws and regulations regarding reclamation and post-mining activities are still not effective enough to encourage mining companies to do so. This is also due to the lack of strict supervision. In addition, there is still a lack of firm action taken so that there are still many ex-mining lands in forest areas that are left without reclamation. This is due to activities that affect the economic sector and require forest areas. So often the government overrides and does not balance the restoration of forest areas with the damage that will be caused. In this case, the government needs to take firm, concrete, and consistent action to restore the function of ex-mining forest areas. In addition, a major step can also be taken such as a forest moratorium to restore most of the damaged forest areas to return to their original functions.

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