

# Juridical Analysis of the Existence of Illegal Rock-Mineral Mining and the Environmental Impacts Caused

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**Abstract.** The aim of this article is to Juridically analyse the existence of rock mineral mining in Reban District, Batang Regency, and Analyse the Impact of Rock Mineral Mining on the surrounding environment. The research approach used in this research is a qualitative approach with empirical normative research types. The data sources used are primary data and secondary data. The data collection techniques used are through interviews, observations, and documentation. Data validity using triangulation techniques and data analysis with descriptive analysis. The results and discussion of the study showed (1) That the existence of rock mineral mining in Tambakboyo Village, Reban District, Batang Regency, does not mining license and Environmental approval for having violated Article 47 verse (1) letter b jo Article 47 ayat (2), Article 58, Article 60, Article 127 Local Regulation Number 13 Year 2019 about the Batang Regency Regional Spatial Plan Year 2019-2039; (2) The existence of rock mineral mining harms environmental damage, damaging agricultural irrigation, soil erosion, damaging river ecosystems, flooding and damaging access to the Reban-Limpung highway, and causing environmental pollution such as water pollution and air pollution.

**Keywords:** Environmental Impact; Juridical Existence; Illegal Rock-Mineral Mining

## 1 Introduction

Indonesia has abundant natural wealth, biological and non-biological; various non-biological natural resources, such as coal, gold, petroleum, and others, are contained in the bowels of the Indonesian Earth. The community's increasing needs have caused it to do various ways to meet its living needs, including using non-biological natural resources around them by conducting mining businesses. Article 33 (3) UUD 1945 states that the Earth, water, and the natural wealth contained therein are controlled by the state and used for the greatest prosperity of the people. Mining activities have contributed significantly to various aspects of life in Indonesia. Coal mines provide energy sources, while mineral mines provide a variety of raw materials for industrial purposes. Rock mining materials such as stone, sand, and lime also significantly contribute as materials for infrastructure development. Indonesian mining is regulated in Law Republik Indonesia Number 3 Year 2020 about Changes to the Law Number 4 Year 2009 on Mineral and Coal Mining, called (Mining Law).

The renewal of the law is carried out as a form of resolution in overcoming problems so far, such as conflicts, social conflicts, or disputes both at the time of determining mining areas, permits, overlapping plantation or forestry sectors, as well as failures in managing waste or intentionally causing pollution and environmental damage due to mining business activities. The role of local governments (panda) related to mining management has been regulated in Law Number 4 of 2009 concerning Coal Mineral Mining; some of the deep local government authorities' Article 7 and Article 8 emphasize several tasks and functions of the Regional Government so that the Regional Government can carry out the preparation balance sheet of mineral and coal resources as well as the development and increase of the added value of mining business activities. The local government can encourage community participation in the mining business sector in the framework of environmental sustainability around the mine site. mineral mining is one of the mining businesses that the people of Batang Regency mainly carry out on rivers and private land.

In addition to meeting basic needs, the demands of fulfilling staples for the development of the Batang Integrated Industrial Estate (KITB) are a driving factor for the rise of mining businesses in Batang Regency. KITB is one of the National Strategic Projects (PSN) and accelerated development projects believed to spur regional and national economic recovery with a total land area of 4,300 hectares. With the demands of many meeting the needs of Batuan, many illegal mining businesses did not meet the licensing requirements or because they did not take care of permits. Natural Resources Management for mining activities can potentially damage the environment. By Batang Regency Local Regulation Number 13 the Year 2019 concerning the Batang Regency Regional Spatial Plan Year 2019-2039, Article 60 paragraph (4) regulates that there are only 6 (six) sub-district areas that are allowed on a limited and conditional basis for rock mining activities, namely Banyuputih, Gringsing, Limpung, Subah, Tersono, and Tulis sub-districts.

There is still Rock Mining in some zonings that are not regulated in the regional spatial plan; all space utilization activities, including mining, should be under space utilization activities based on regional spatial plans, such as the Rock Mining of the Petung River area in Tambakboyo Village, Reban District, Batang Regency, which has existed since 2019. Based on Local Regulation Number 13, the Year 2019, concerning the Batang Regency Spatial Planning Year 2019-2039, Reban Subdistrict is not included in the six areas allowed on a limited or conditional basis to conduct mining. Mining on the river border is prohibited because it is a protected area/buffer of the river ecosystem. Spatial planning policy based on the morphological character of the area for the Tambakboyo area, Reban District is a conservation area, dominant for agricultural cultivation, horticulture, forestry.

## **2 Method**

The research approach used is qualitative. A qualitative Approach is a research approach that is carried out by describing the research object in depth. A qualitative approach is carried out to understand the social symptoms that exist in society, then conclude objectively according to the actual conditions. [1] This type of Research is field research. The type of research that the author uses is empirical normative research. Normative-empirical research methods regarding implementing normative legal provisions (laws) in their action at each specific legal event in society. [2] Research by examining the implementation or implementation of

favourable legal provisions (legislation) and factually on each specific legal event that occurs in society. The research data source in this study consists of primary and secondary data. [3] Primary data is obtained directly from the source through interviews, observations, and documentation. A secondary data source is information obtained by researchers indirectly, but through intermediary media, secondary information is used to complement and support primary data sources. Secondary data sources include expert opinions, library materials from books, archives, documents, laws and regulations, reports, journals, research results, electronic media, and other supporting literature materials.

### **3 Results And Discussion**

#### **3.1. Juridical Analysis of Illegal Rock Mineral Mining in Reban District, Batang Regency**

The mining industry is one of the country's largest sources of economic income, managed by the Government and the private sector .[4] Therefore, it was formed Republic of Indonesia Law Number 3 Year 2020 About Top Changes Law Number 4 Year 2009 on Mineral and Coal Mining (hereinafter referred to as the Mining Law). In general, the main idea of the Mineral and Coal Law is that the government provides opportunities for individuals, communities, cooperatives and business entities to conduct mineral and coal mining businesses. On the other hand, an increase in mining production can lead to scarcity of mineral resources in the long term.

The mining industry is one of the country's most significant sources of economic income, managed by the Government and the private sector.[4] Therefore, it was formed by the Republic of Indonesia Law Number 3, the Year 2020, About Top Changes Law Number 4, the Year 2009, on Mineral and Coal Mining (from now on referred to as the Mining Law). In general, the main idea of the Mineral and Coal Law is that the Government provides opportunities for individuals, communities, cooperatives, and business entities to conduct mineral and coal mining businesses. On the other hand, an increase in mining production can lead to a scarcity of mineral resources in the long term.

A Mining business license or IUP is a permit to carry out a mining business. So that before an individual or cooperative who is incorporated or unincorporated will carry out a mining business, they must have a Mining Business Permit or IUP. After having a weighing business license, each person must have a Mining Business Permit Area (WIUP), which is the area granted to IUP holders or SIPB holders. SIPB or Rock Mining Permit is a permit granted to carry out certain types of rock mining business activities or for specific purposes. Mining Business Permits are made based on the provisions of the Central Government, based on Article 4 of the Mineral and Coal Law, that Minerals and Coal are non-renewable natural resources that are national wealth controlled by the state for the maximum welfare of the people. Control of Minerals and Coal by the state to be administered by the Central Government by the provisions of this Act. However, the Central Government may delegate the authority to grant Business Licenses, as referred to in paragraph (2), to provincial governments under the provisions of laws and regulations.

The management of rock mineral mining related to organizing at the local government level is divided into four, namely BAPPEDA as the regional research and development planning

office, the Public Works and Spatial Planning Service (DPUPR) as the agency that determines the spatial plan of the mining area, the Environmental Service (DLH) as environmental management, environmental supervision and ecosystems around the mine, the civil service police unit as the enforcer Regional regulations related to mining under the provisions of laws and regulations.

Tambakboyo Village is a strategic village in the Reban district of Batang Regency that has the potential for abundant mining resources, especially river rock minerals. Although Tambakboyo Village has mining material resources in the form of rock minerals, Reban District is not included in the mining designation area; the mining allocation area is an area that has the potential for mining material resources in the form of solid, liquid, or gas based on geological customary maps and is the place where part or all of the mining stages are carried out including research, general investigation, exploration, production/exploitation, and post-mining operations, both in land and water areas and are not limited by land use, both cultivated areas, and protected areas.

Juridical analysis is presented as follows:

1. The rock mineral mining area in Tambakboyo Village, Reban District, is outside the mining designation area. Based on the provisions of Batang Regency Regional Regulation Number 13 of 2019, rock-mineral mining in Tambakboyo Village, Reban District is not included in the mining area, so rock mineral mining in Tambakboyo Village, Reban District does not have Mining Business Permit Area (WIUP) and Mining Business Permit (IUP), because the Mining Area is part of the Mining Jurisdiction as the basis for the determination of Mining Business Activities and the determination of WIUP Mineral carried out after meeting the criteria for the use of space and area for Mining Business activities under the provisions of laws and regulations. (Article 17A Law of the Republic of Indonesia Number 3 the Year 2020 concerning Changes to Law Number 4 the Year 2009 regarding Mineral and Coal Mining).
2. Rock Mineral Mining in Tambakboyo Village, Reban District, needs an environmental permit or approval. Rock mining cannot be separated from environmental issues, which are activities required to obtain environmental permits or what is now called environmental approval as part of environmental impact control. Licensing in the perspective of state administrative law is one of the efforts and strategies of the Central and Regional Governments in the context of controlling or controlling a legal object from activities against it. These efforts and strategies are carried out by prohibiting without permission from carrying out any activities against the object in question. Environmental approval must be owned by every business and activity that has an essential or unimportant impact on the environment (Article 3 paragraph (1) Government Regulation of the Republic of Indonesia Number 22 Year 2021). Mining business actors in Tambakboyo Village do not have all permits, and the Batang Regency Environmental Agency cannot issue environmental permits or approvals for the Rock Mineral Mining Business in Tambakboyo Village,

Reban District, because it is not under the mining area. Under Article 60 paragraph (4), Batang Regency Regional Regulation Number 13 Year 2019 concerning the Batang Regency Regional Spatial Plan 2019-2039. Rock Mineral Mining in Tambakboyo Village, Reban District, violates the boundary of the river border. The River Border is an area along the right and left of the river, which has significant benefits for maintaining the sustainability of the function of the river. With the preservation of river functions, water resources will also be maintained, and water resources are a crucial factor in protecting the ecological environment of the mining area. Petung River is one of the tributaries of the Urang River in Tambakboyo village, Reban district, which is an irrigation water provider to irrigate the rice fields around the river. By Article 47 ayat (2) letter k, The Urang River and its tributaries through Reban District are rivers that have river borders. Rock mineral mining activities in Tambakboyo village, located on the Petung River, have crossed the boundary of the river border; the boundary of the river border has been regulated in the provisions of Article 47 ayat (1) letter b that for untangled rivers outside the urban area is set to be at least 100 (one hundred) meters from the left and right banks of the river trough along the river channel for large rivers with a watershed area greater than 500 (five hundred) square kilometers. The condition of Petung River, which has a watershed area of more than 500 (five hundred) square kilometers, does not have a river border area following the provisions of laws and regulations because these boundaries have been lost with the activities of mining rock minerals, taking rocks in the river and making access roads for trucks that take rock mining products.

3. The Rock Mineral Mining Area in Tambakboyo Village, Reban District, is included in the Agricultural Area. Agricultural areas are a combination of agricultural centers that are functionally related in terms of natural resources, socio-cultural, and infrastructure in such a way as to meet the limits of the minimum area of economies of scale and the effectiveness of regional development management. By Local Regulation Batang Regency Number 13 Year 2019 concerning Spatial Plans for Batang Regency In 2019-2039 Article 58 concerning Agricultural Areas that Reban District includes food crop areas, horticultural areas, and plantation areas n. So that the Reban District Area is not allowed the existence of activities that threaten the land's carrying capacity in this function, including mining.
4. Rock Mineral Mining in Tambakboyo Village, Reban District, is not under Article 127 ayat (3) About the General Provisions of the Mining Area Zoning Regulations Local Regulation No. 13 Year 2019 about the Batang Regency Regional Spatial Plan 2019-2039. Kawasan Rock Mineral Mining in Tambakboyo Village, Reban District, is not included in the mining designation area. Likewise, rock mineral mining in Tambakboyo village, Reban district, Batang regency violates the general provisions of the zoning regulations for rock mining areas
5. The utilization of energy and mineral resources in the exploitation of rock mineral mining in Tambakboyo Village, Reban District, differs from the

optimization in mineral resource management under mining zoning for the benefit of Regional Development. The management of the potentially exploited mineral resources must apply strategic environmental studies to determine the direction of management policies in local governments; under the regional autonomy policy, each region can organize and take care of its area to realize community services and welfare. With decentralization, mining aims to give authority to regions to manage their natural resources to contribute to regional development.[5]

6. The regional autonomy policy in the Batang Regency area gives authority to the Batang Regency government to make Regional Regulation Number 13 of 2019 concerning the Batang Regency Regional Spatial Plan. With this regional regulation, the Batang Regency Government has the authority to regulate mineral resource management. It has the right to provide enforcement against rock mineral mining activities that do not meet the general provisions of the regulations zoning of rock mining areas and not under regional regulatory policies, one of which is in Rock Mineral Mining in Tambakboyo Village, Reban District, Batang Regency, which is not under the general provisions of the mining area zoning regulations as contained in the Article 60 Local Regulation Number 13 Year 2019 and based on the provisions of the Article 142 ayat (1) aforementioned that the mining of rock minerals in Tambakboyo Village, Reban District, has violated point C, namely the utilization of space without a permit for the use of space which is in order based on the Batang Regency RTRW.

Based on this regulation, the Batang Regency Government can provide sanctions written warnings, temporary suspension of activities, closure of locations, restoration of space functions, and administrative fines for rock mineral mining activities in Tambakboyo Village, Reban District, Batang Regency, due to weak law enforcement in Batang Regency until now the Batang Regency Government has not implemented sanctions against rock mineral mining businesses in Tambakboyo Village, Reban District Batang Regency is not under these provisions, even though rock mineral mining is included in categories such as in the context of implementing decentralization and regional autonomy of mineral and coal mining management is carried out based on the principles of externalization, accountability, and efficiency involving the Government and Regional Governments. The importance of making regulations regarding the general provisions of zoning regulations for rock mining areas is to prevent long-term scarcity due to the depletion of rock minerals. Depletion of mineral resources can result in long-term mineral shortages of rocks.

### **3.2. Impact of Illegal Rock Mineral Mining on the Environment**

Mining activities must be distinct from the regulations governing them to ensure the grand design of natural resource management. Namely controlled by the state for the prosperity of the people, principled on sustainable development, and environmentally sound. Therefore, mining management regulations must also guide how mining is carried out properly and

correctly. The management of rock mineral mining in Tambakboyo Village, Reban District, Batang Regency, is considered not running well, causing environmental impacts. In addition, the operation of rock mineral mining in Tambakboyo village does not have a permit, and licensing requirements are needed to avoid widespread adverse impacts. Since licensing is part of the government's performance, the Central and Regional Governments must regulate and manage natural resources in their areas. Environmental permits are one of the preventive instruments for controlling environmental impacts. The objectives of issuing environmental permits include:

1. Protecting a sustainable and sustainable environment
2. Increase efforts to control businesses and activities that harm the environment.
3. Provide clarity on procedures and mechanisms for implementing business activities.

It is not easy to manage Indonesia's natural resources, which are abundant in minerals and wrapped in green forests. It takes a high level of wisdom to take advantage of the results of mining processing, not only the interests of the capitalist economy. The forests are looted, and the mineral content is exploited.[6]

There is a wrong impression that rock mineral mining in Tambakboyo village, Reban district, Batang Regency, is a zero-value activity as a result of the fact that rock mineral mining activities do not meet the criteria and technical rules that are good and correct under the provisions of benefits, sustainable and environmentally friendly. The emergence of wrong stamps on rock mineral mining in Tambakboyo village, Reban District, apart from the fact that mining rock minerals are illegal, there are many problems and environmental impacts caused by the mining. The impact on the environment caused by rock mineral accretion activities in Tambak Boyo Village is as follows:

1. Rock mineral mining activities in the Petung River cause damage to the river ecosystem with the loss of fish in the river. Taking rock minerals causes the river water to become cloudy and brown. In addition, muddy river water will interfere with irrigation flow to rice fields so that rice planting results could be better. Mining of rock minerals in the river caused floods in February 2022 as high as 6 meters from the river water level, exceeding the river area and resulting in the submergence of farmers' rice fields and roads becoming inundated with river water.
2. Mining on a large scale by clearing large land areas makes the land unproductive. The excavation of soil around the river, even on land that was supposed to be an agricultural and plantation area that used to be a hill-like structure after being dug up caused the soil to erode and caused soil erosion, the loss of sustainable food farming areas, and the loss of plantation areas.
3. The transportation of rock mineral mining products across Jalan Reban-Limpung destroyed the main road. They are causing potholes on the road. If there is a rainy season, the potholes will be flooded and slippery so that they can endanger road users and even cause accidents.

4. The operation of a rock mineral mine that uses dump trucks to transport rocks causes air pollution for the communities around the operating road, and much dust and pollution from dump truck fuel disturbs road users behind it. If left unattended for longer, it can hurt the health of the surrounding village community and road users who are traveling.

Institutionalizing environmental law with other regulations or laws affirms that the environment is critical to humans. As an example of a law in its formulation, every government regulation does not continuously regulate in detail and ultimately, so sometimes, to have legal certainty for the community, it needs guidance in overcoming problems that arise. [7]For example, coal mineral mining, regulated in the Mineral and Coal Law in addition to bringing legality from activities, also regulates environmental impacts, so it is essential to have the constitutionalization of environmental regulations to have legality and legal certainty.[8]

In rock mineral mining activities in Tambakboyo Village, Reban District, Batang Regency, as a form of utilizing energy and mineral resources, in managing the potential of exploited mineral resources, it is necessary to implement the principle of sustainable development. Sustainable development has three main mutually sustainable pillars: economic growth, social sustainability, and environmental sustainability. Of the three pillars, rock mineral mining in Tambakboyo Village, Reban District, has not implemented, where the pillar of economic growth that should maintain stable economic growth by restructuring the productive system to save resources and energy in rock mineral mining activities in Tambakboyo Village does not restructure the productive system to save resources and energy, in mining activities resources and energy in this case, rock minerals that are always exploited continuously will experience scarcity, so that thus the economic growth of the Tambakboyo village community, Reban District, becomes unstable for the long term.

In the pillar of social sustainability, rock mineral mining activities in Tambakboyo Village, Reban District have not guaranteed social justice in the distribution of wealth and social services, this is seen from the use of mineral resources for personal interests, the destruction of natural resources for personal interests without paying attention to social impacts for other communities and the existence of poor social services, where the head of tambakboyo village, a position that should be a mandate to provide good social services to the community, but its authority is used as an access to make it easier to become a rock mineral mining business owner while carrying out rock mineral mining activities not in accordance with laws and regulations, In the pillar of environmental sustainability, it is apparent that rock mineral mining does not carry it out, rock mineral mining activities in Tambakboyo village, Reban District has a negative impact on the river environment and even the surrounding environment. Implementing rock mineral exploitation activities without environmental insight does not protect the environment. Every life administration activity must be focused on efforts to preserve the function of the environment so that it can realize the creation of a just, prosperous, and equitable society.

Sustainable development must continue and grow in the future to ensure that minerals remain available to communities for industry; linkages are needed between existing institutional frameworks to oversee responsible mineral sourcing, mineral exploration trajectories, environmental practices, and entrepreneurs' awareness of the impacts of mining activities. In developing countries where the demand for minerals continues to increase, this presents severe



environmental problems due to the conflict between economic development and environmental protection.

The main challenge faced by the Batang district government is to pursue maximum economic growth through the use of natural resources. The effectiveness of environmental law enforcement on rock-mineral mining industry activities can work well regarding several fundamental aspects. On the other hand, mining activities aim to create jobs and improve the economy, which aims to equalize income through the absorption of labor in the mining industry sector. Environmental issues that become global issues require the government to strictly crack down on violators/perpetrators of environmental pollution in order to cause a deterrent effect for others. The government can take legal steps through administrative, criminal, and civil considerations to realize environmentally friendly and sustainable production activities in the future.[9]

Environmental law enforcement is an effort to achieve compliance with regulations and requirements in general and individual legal provisions through the supervision and application of administrative, criminal, and civil sanctions.[10]Environmental law enforcement can be preventive, meaning that active control is exercised on regulatory compliance without direct incidents involving actual events that give rise to the presumption that a statutory provision has been violated. Local governments' authority are counseling, monitoring, and the use of supervisory authority (sampling, stopping machines). So, the primary law enforcer is the government officials/officials authorized to grant permits and prevent environmental pollution. [11]Repressive law enforcement is carried out in the event of acts that violate the rules and aim to end those prohibited from acting directly. Criminal prosecutions generally follow a violation of the rules and usually cannot negate the consequences of the violation.

#### **4 Conclusion**

Based on the results of research and discussion, it can be concluded : (1)The existence of rock mineral mining in Reban District, Batang Regency, is illegal because it violates the provisions in Local Regulation Kabupaten Batang Number 13 Year 2019 about the Batang Regency Regional Spatial Plan 2019-2039 Article 47 verse (1) letter b jo Article 47 verse (2) about the provisions of the river Border, Article 58 about Agricultural Areas, Article 60 verse (4) about rock mineral mining areas and articles 127 ayat (3) on General provisions of zoning regulations for rock mining areas; (2) Illegal mining activities harm the environment, based on Law Number 32 Year 2009 in the form of environmental damage and environmental pollution. The impact of environmental damage such as soil erosion, flooding, damage to river ecosystems, damage to agricultural irrigation, and damage to the Reban-Limpung road access, Environmental pollution, such as river water pollution, becomes cloudy, and air pollution is caused by dump truck traffic, causing air pollution.

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