Volume 7 Number 2 (2025)
July-December 2025
Page: 41-56

E-ISSN: 2686-4819
P-ISSN: 2686-1607
DOI: 10.37680/almanhaj.v7i2.8377

AL-MANHAJ
Jurnal Hukum dan Pranata Sosial Islam

Legal Analysis of Unlicensed Sand Mining Business Activities on Inherited Land

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Received: 15/07/2025 Revised: 23/08/2025 Accepted: 25/09/2025

Abstract

This study aims to analyze the aspects of law and its impact on the environment, specifically in relation to the activity of mining sand that is conducted above land without official permission. Problems mainly occur in the study. This is how arrangement law affects activity mining, excavation in the ground, and the unexplored legacy , all of which require permission. This also impacts the environment created by the activity, as stated. Research this use method using a qualitative descriptive approach, incorporating interviews, field observations, and studies of literature, regulations, legislation, and related legal sources. Research results indicate that activity mining sand without permission contravenes Article 3 of Law Number 4 of 2009 concerning Mineral and Coal Mining, as every activity mining must obtain official permission in the form of an IUP or IPR. Activities categorized as illegal mining can result in charges of both administrative and criminal sanctions. From an environmental perspective, activities such as mining without permission cause various damages, including erosion, soil landslides, water pollution, damage to infrastructure and roads, and disturbance to the ecosystem of flora and fauna. Research confirms the importance of improving awareness of the law, community, and government supervision so that mining activities are conducted in accordance with the principles of sustainability and environmental protection, ensuring a healthy environment.

Keywords

Environmental Impact; Illegal Mining; Legal Arrangement; Sand Mining; Sustainability

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1. INTRODUCTION

Natural resource exploitation through extractive industries represents a fundamental economic activity, providing essential construction materials, including sand aggregates, stone, mineral deposits, and coal reserves that serve critical roles in infrastructure development and economic advancement. Among various extraction typologies prevalent throughout Indonesia, particularly in elevated terrain regions, Class C mining operations produce sand, gravel, and crushed stone as primary construction inputs. Sustainable management of these resources requires a careful balance between developmental

utilization and ecological safeguarding to maintain ecosystem integrity. Land constitutes an indispensable element of human existence, with virtually all anthropogenic activities maintaining terrestrial connections, thereby generating competitive acquisition pressures driven by the intrinsic economic significance of land across various societal dimensions, establishing it as an interconnected, vital resource chain. (Rohim, 2022)

Proprietary land interests represent the most significant property entitlements within human civilization. Concurrent with demographic expansion requiring spatial accommodation, land ownership frameworks continually evolve in terms of both conceptual paradigms and governing jurisprudence. (Patahuddin et al., 2023) Territorial ownership rights emerge through transfer mechanisms, generating juridical actions and events. Rights transfers resulting from deliberate legal acts constitute voluntary actions by parties that establish reciprocal rights and obligations through transactions, including purchases, exchanges, donations, and testamentary transfers. Land rights registration maintains critical importance as rights transfers demand authenticated documentation via land certificates obtained through formal registration processes, thereby establishing registration as essential for legitimate transfers. Such transfers constitute juridical acts designed to relocate rights between parties. (Patahuddin et al., 2023)

Article 19 paragraph (1) of Law No. 5 of 1960 concerning Basic Agrarian Law stipulates: "To guarantee Legal Certainty, the Government conducts land registration throughout the Republic of Indonesia territory according to provisions regulated by Government Regulations." Consequently, ensuring this legal certainty requires land registration, which generates authenticated proof—specifically, land rights certificates. Inherited territories emerge following the deaths of family members, particularly when the deceased individuals possessed assets. The primary focus centers not on the mortality events themselves, but rather on managing the deceased persons' remaining estates.

The rules governing the inheritance of someone who has died are called the Inheritance Law. This Inheritance Law is regulated in Book II of the Civil Code, along with regulations regarding general objects. This is based on the view that inheritance is not merely a process of transferring ownership, but also includes other property rights (property rights) as well as certain obligations regulated in Property Law. Based on the provisions of Government Regulation Number 18 of 2021 concerning Management Rights, Land Rights, Flats Units, and Land Registration, it is explained that heirs have the obligation to register the transfer of rights due to inheritance. Some lands acquired through inheritance have uniqueness in terms of ownership because they are usually jointly owned by heirs without a clear division, especially in rural areas, and the testator or landowner dies before dividing their inheritance.

Therefore, it is not uncommon for inheritance conflicts to arise within a family. When inherited land is utilized or used for purposes that are not in accordance with statutory regulations for unilateral

interests, it can lead to conflicts between family members or heirs regarding management rights, profit sharing, and potential environmental impacts. This conflict can be exacerbated by the lack of understanding among heirs regarding their rights and obligations in relation to the ownership of inherited land, as well as regulations that sometimes fail to protect or accommodate the interests of all parties involved adequately. As a result, it is not uncommon for the status of inherited land to become disputed.

The phenomenon of unlicensed Class C mining can cause various serious problems, especially in environmental aspects. Sand mining activities carried out without adequate technical studies can lead to environmental degradation, including soil erosion, vegetation damage, landslides, and changes in river flow. Mining activities, although strategically valuable and contributing to the national economy, are within the realm of state management in accordance with Article 33 paragraph (3) of the 1945 Constitution, which affirms that the state controls the earth, water, and natural resources for the greatest prosperity of the people.

However, in its implementation, many mining activities in Indonesia do not adhere to the principles of sustainability, resulting in ecological damage and threatening local biodiversity, including endemic species. (Putri et al., 2025) These mining activities can disrupt water ecosystems and increase the potential for flooding during the rainy season because the soil structure becomes increasingly vulnerable. In addition to physical environmental damage, other impacts that may arise are social conflicts among residents related to land boundaries and profit distribution, the emergence of local economic imbalances, and a decrease in the quality of life of communities directly affected by mining activities.

The practice of conducting mining activities without permits persists in various areas, including Ponorogo Regency. Sand mining business activities, especially those carried out in hilly areas or mountain slopes, can result in land degradation and physical environmental damage in the surrounding area. (Mawardi Heru Prasetyo et al., 2025) The mining problems referred to encompass not only the mine itself, but also environmental issues. (Mambi et al., 2023)

One example of violations often found is Class C mining without permits carried out on privately owned land, such as family-inherited land. For some landowners, inherited land is viewed as a free asset that can be utilized without having to comply with mining legal provisions. This understanding often leads people to undertake sand mining activities independently to obtain economic benefits without considering the requirement for mining business permits (IUP) or People's Mining Permits (IPR) as mandated by law.

Class C mining business activities on private land, particularly agricultural land without an IUP, can lead to the conversion of agricultural land into mining areas, thereby threatening the availability of

productive land for future generations of farmers and potentially impacting local food security. In addition, sand mining activities also impact physical infrastructure. (Syaifulloh, 2021)

From this, it is evident that illegal Class C mining reveals a lack of public awareness regarding the legal obligations associated with the utilization of natural resources. There is still a perception that private ownership rights to land guarantee full freedom to exploit it. However, according to the principle of state control over natural resources, minerals, and excavated materials contained in the land, these are not the private property of the landowner, but rather state assets whose management must adhere to permit provisions. When permits are not processed, there is no guarantee of environmental protection, no responsibility for reclamation after mining, and no official contribution to state or regional revenues.

Mining Class C excavations without permits is a criminal offense, in accordance with Law Number 3 of 2020, which amends Law Number 4 of 2009 concerning Mineral and Coal Mining (Minerba). In Article 158 of Law Number 3 of 2020, "Anyone who conducts mining without a permit as referred to in Article 35 shall be sentenced to a maximum imprisonment of 5 (five) years and a maximum fine of Rp. 100,000,000,000.00 (one hundred billion rupiah)". The mining process is often associated with environmental damage. Biodiversity becomes disrupted both in its distribution and the abundance of species around the mining area. (Mambi et al., 2023)

The phenomenon of sand mining without permits in several locations (for example, Pasir Sakti, Lampung, and several locations in West Java) also results in the government and communities losing potential income because there are no official levies, while triggering environmental damage without proper handling, thereby worsening the overall socio-economic impact. (Ranggalawe et al., 2023)

Within both academic and practical contexts, these issues warrant investigation as they relate to the implementation of positive law and the effectiveness of environmental protection policies. Research on unlicensed Class C mining in Ponorogo Regency can provide realistic depictions of mining regulation implementation, law enforcement extent, and field-level environmental impact manifestations.

Furthermore, this study can serve as a reference material for local policy improvements, especially regarding enhanced public awareness of the importance of mining business permits and reclamation and environmental restoration obligations. From the text, we can derive the first problem formulation**:** How are the legal regulations for Class C sand mining business activities on privately inherited land that does not yet have a permit? The second problem formulation is: What are the environmental impacts of Class C sand mining business activities on inherited land that does not yet have a permit?

The theoretical benefits of this research are that this writing is expected to contribute to the development of legal science, particularly in understanding the impacts of Class C sand mining

activities on private land that does not yet have permits applicable in Indonesia, as well as the importance of authentic evidence in community life. One of the academic benefits is a prerequisite for obtaining a Master of Laws (M.H.) degree in the Notary Masters Study Program, which also involves adding nationally accredited journals to support the improvement of accreditation for the Notary Masters Study Program at Sebelas Maret University, Surakarta. The last practical benefit is to serve as a guide for the community on the importance of business license registration, particularly in the mining sector, thereby reducing the risk of conflicts or disputes and protecting the interests of all parties involved.

2. METHOD

This journal research employs descriptive characteristics, specifically describing and discovering legal facts through a comprehensive and systematic examination of the problem. This investigation constitutes Empirical Legal research. Empirical or sociological legal research applications aim to determine the implementation of law, including enforcement processes, as this research typology can reveal problems underlying the implementation and enforcement of law. (Waluyo, 2002)

This research employs descriptive qualitative methods, aiming to understand and analyze in depth the legal aspects related to Class C sand mining business activities on private land that do not yet have a mining business permit. This research does not involve the measurement or analysis of numerical data, but rather focuses on the interpretation of legal documents, theoretical analysis, and related legal norms, making it more suitable for a qualitative approach.

The data obtained for this research consists of 3 (three) materials, namely:

1. Primary Legal Materials: This data is obtained through interviews with direct informants, observation of the study area, and documentation. Interviews with informants include several parties of heirs who own the inherited land, several village officials, and one resident.
2. Secondary Legal Materials: This data is obtained from several laws applicable in Indonesia.
3. Tertiary Legal Materials: this data is obtained from journals, as well as books and articles in electronic format.

Data analysis techniques in this research are executed through qualitative analysis, a research methodology producing descriptive analytical data, specifically respondent statements written or oral, plus their actual behavior, studied and examined holistically, then drawn based on field facts and compared with applicable regulations consistent with Indonesian positive law using legal certainty theory and legal effectiveness. At the same time, a concluding analysis is conducted using deductive thinking methods, specifically approaches that identify general-nature factors, and then draw specific-nature conclusions that constitute problem answers based on research results.

3. FINDINGS AND DISCUSSION

3.1 Legal Regulations for Unlicensed Sand Mining Activities on Privately Inherited Land.

Sand extraction operations in Serag Village, Ponorogo Regency, are conducted on inherited territory belonging to the deceased Djoyo Dwiryo, with mining business management overseen by X, a single heir who lacks knowledge from the remaining inheritors (interview with one heir, n.d.). Following interviews with the heir of a landowner (interview with Mrs. PM), according to her testimony, the mining business proprietor stated that permits were unnecessary, as the activities occurred on privately owned land.

Additionally, the business proprietor employs heavy machinery during operations. However, this contradicts provisions regulated in Article 6 of Government Regulation (PP) No. 96 of 2021, which stipulates that mining business activities must be executed based on business permits from the central government. People's mining permit acquisition requirements are regulated with the following provisions:

a. Photocopy of Identity Card (KTP);
b. Type of mining commodity applied for;
c. Certificate from the local sub-district or village.
d. Statement letter that the well depth in IPR is not more than 25 meters;
e. Statement letter on the use of mechanical pumps or machinery with a maximum power of 25 horsepower per IPR;
f. Statement letter not using heavy equipment or explosives; and
g. Financial report for the last year.

Based on informant interviews, including those with residents, Serag village officials, Ponorogo regency officials, and one heir, explanations revealed that sand mining business activities have been extensively operating, commencing in 2017 and continuing through 2025. Sand mining business activities began with the use of small implements for dredging sand. Subsequently, when sand mining activities expanded, heavy equipment such as excavators was utilized, and sand transportation was employed with Mitsubishi L300 vehicles capable of approximately five daily trips.

Additionally, the business proprietor established sand washing facilities near business areas, where the wastewater from washing flows toward surrounding rice paddies, causing environmental pollution in the mining territories. From this, the writer concludes that the business proprietor fails to comply with Indonesian applicable regulations, which demonstrates violations of these regulations. Based on the mentioned requirements, it can be concluded that sand mining activities in Serag Village, Ponorogo Regency, utilizing heavy equipment, have breached applicable provisions.

This violation is further strengthened by existing regulations in the Minister of Energy and Mineral Resources Regulation Number 19 of 2020, stating that every mining business, including those using People's Mining Permits (IPR), must obtain official permits. In Law Number 3 of 2020 concerning Amendments to Law Number 4 of 2009 concerning Mineral and Coal Mining, Article 67 stipulates that IPR is granted by the Minister to individuals or cooperatives whose members are Indonesian residents.

To obtain an IPR, applicants must submit an official application to the Minister. Sand mining activities in Serag Village lack official permits issued by the Minister, as evidenced by the absence of related documents or permits. Without this permit, business actors do not fulfill their obligations as regulated in Article 70 of Law Number 3 of 2020, namely:

a. Carrying out mining activities no later than 3 months after the IPR is issued;
b. Complying with regulations in the field of mining safety, environmental management, and applicable standards;
c. Managing the environment together with the Minister;
d. Paying levies for people's mining; and
e. Submit periodic reports related to the implementation of people's mining business activities to the Minister.

Official permit absence demonstrates that mining activity fails to comply with applicable statutory provisions, thus violating regulations and potentially causing negative impacts both legally and environmentally, so that official permit absence in sand mining activities in Serag Village, Ponorogo Regency, strengthens the assumption that the Minister or authorized officials are not optimal in supervising and fostering these activities. This is reflected in the permit absence issued by the Minister, even though Article 139 of Law Number 3 of 2020 stipulates that the Minister is responsible for fostering mining business activity implementation execution carried out by Mining Business Permit (IUP) holders, Special Mining Business Permits (IUPK), IPR, Rock Mining Permits (SIPB), or Mining Services Business Permits (IUPJ). Another causative factor for this occurrence is insufficient public legal awareness, which results in more actions violating legal provisions that have been regulated in the law. (Ariyanti et al., 2020)

Thus, sand mining business activities that do not fulfill business activity implementation reporting obligations can be categorized as illegal businesses. Based on informant statements (from one village resident), the utilized permit is only in the form of a recommendation from the local village. Whereas, according to applicable provisions, a village recommendation is only one of the requirements needed in the IPR processing process, not an official permit. Therefore, the village recommendation letter cannot be considered a valid permit for sand mining activities in Serag Village, Ponorogo Regency. Sand mining activities in Serag Village, Ponorogo Regency, lack a mining business permit, posing a serious

problem as they violate state regulations regarding the implementation of mining businesses. Therefore, sanctions must be enforced in accordance with applicable laws and regulations. Although mining activities were once halted because they lacked a valid permit, in reality, sand mining activities are still ongoing in the village. This indicates that these activities constitute illegal businesses that are contrary to the positive law applicable in Indonesia.

Based on the case above, illegal mining activities are one of the prohibited criminal acts in the mining sector, as outlined in the Law and Amendments concerning Minerba. There are 2 (two) types of sanctions for violators, namely administrative sanctions and criminal sanctions. Administrative sanctions for illegal mining perpetrators are in the form of:

1. Written warning
2. Fine
3. Temporary suspension of part or all exploration or production operation activities; and/or
4. Revocation of IUP, IUPK, IPR, SIPB (rock mining permit), or IUP for Sales.

Administrative sanctions can be imposed on holders of Mining Business Permits (IUP), People's Mining Permits (IPR), or Special Mining Business Permits (IUPK) for violating several provisions outlined in Article 151 (Amendment to the Minerba Law). One of which is using a Mining Business Permit (IUP) other than that permitted by the granting of the IUP. (Arjuna et al., 2024) According to Gustav Radbruch, there are 3 three legal objectives, namely, justice, utility, and legal certainty. (Halilah & Arif, 2021)

This is directly related to legal certainty in the hierarchy of community life. According to Gustav, legal certainty must guarantee that the law can function as a regulation that must be obeyed, not only regarding how the regulation is implemented, but also how the norms or material content in the regulation contain basic legal principles. (Halilah & Arif, 2021) Legal certainty is in harmony with the normative nature of both decisions and judicial provisions. The application of clear, orderly, consistent laws of life that are not influenced by arbitrary circumstances in community life is called legal certainty. Law enforcement is an effort to bring the concepts of justice, legal certainty, and social utility into reality, making it essentially a manifestation of these ideas. Law enforcement is the process of making efforts to uphold or enforce legal norms in reality, serving as a guide for actors in traffic or legal relationships within the community and state.

Law enforcement is an effort to bring legal ideas and concepts to reality, and in the process, it requires the involvement of various elements. Law enforcement, in a broad sense, encompasses real or factual actions, behavior, or conduct that is in accordance with binding rules or norms. However, in efforts to maintain and restore order in social life, the government is the security actor. Law enforcement

(criminal), when viewed from a policy process, law enforcement is essentially policy enforcement through several stages, namely:

1. Formulation stage, namely the stage of law enforcement in abstracto by the legislative body. This stage is called the legislative stage.
2. Application stage, namely the stage at which law enforcement officials, from the police to the courts, apply criminal law. This second stage is called the judicial policy stage.
3. Execution stage, namely the stage of implementing criminal law concretely by law enforcement officials. This stage is often referred to as the executive or administrative policy stage.

Law enforcement in the state is carried out preventively and repressively. Preventive law enforcement is designed to prevent citizens from violating the law, and this task is typically assigned to executive bodies and law enforcement agencies, such as the police. At the same time, repressive law enforcement is carried out, even when preventive efforts have been made, but violations of the law still occur. Based on this, the law must be enforced preventively by law enforcement tools that are given justicial tasks. Repressive law enforcement at the operational level is supported and implemented through various institutions that are organizationally separate from each other but remain within the framework of law enforcement, including the police, prosecutors, courts, and correctional institutions.

In the case of sand mining activities on inherited land carried out without permits analyzed using the theory of legal certainty where the law cannot function as a regulation that is obeyed, this can occur due to the weak function of law enforcement and the effectiveness and validity of a regulation, because if a legal rule is not effective and valid then the judge for example will not apply the law, so that the legal rule has never been effectively applied. However, conversely, it is also true that effectiveness is an absolute requirement for a valid legal rule; therefore, if, at one time, due to changes in society, a legal rule that was originally valid and effectively applied becomes ineffective again, then the legal rule also becomes invalid. (Fuady, 2013)

3.2. Impact of Environment in Unlicensed C-C Mining Business Activities on Privately Owned Inherited Land

Based on the writer's research results, data and information were obtained regarding various impacts of Class C mining activities without permits on environmental sustainability in Serag Village, Ponorogo Regency. The data was obtained through interviews with residents and village officials. The impacts identified in this research are assessed based on several indicators, namely:

a. Land Damage (Barren and Critical)

   According to the writer's research results, sand mining causes land damage, including landslides on soil banks. In addition, this activity has a bad impact on environmental balance and function, including the erosion of soil humus layers, the formation of large holes, and increased erosion.

Erosion, although a natural process, can be exacerbated by human activities such as sand mining. This activity causes changes in land cover to open land, thereby increasing the level of erosion around the mining area. This impact is detrimental to surrounding communities because the land becomes unproductive and cannot be used for farming.

b. Disruption to Flora and Fauna

This research reveals that sand mining activities also have negative impacts on animal and plant ecosystems, particularly those located near the mining area. Surrounding communities can feel the real impact in the form of agricultural land that was previously fertile and supported plant growth, but has become damaged, so that plants cannot grow properly and eventually die. Additionally, the habitats of animals in the surrounding mining area are also disturbed, causing them to lose their homes.

c. Disruption to Resident Safety

Sand mining in Serag Village has an impact on the health and safety conditions of communities around the mining location. In terms of health, the activity of sand transport trucks that continuously pass through the mining area through village roads causes road damage and air pollution, especially during the dry season, which has a bad impact on residents' health. Meanwhile, from the security aspect, the sound of heavy equipment such as excavators (bego) causes noise that disturbs hearing, making residents feel uncomfortable and disturbed by the presence of sand mining activities. Sand mining activities, which utilize heavy equipment to extract materials, pose ecological and social problems for the surrounding community environment. (Andriana, 2021) Residents who are affected by unlicensed sand mining lose their sense of security and comfort, and must bear the socio-economic burden of environmental damage (such as increasing health costs and loss of livelihoods). In addition, the existence of large-scale unlicensed mining business activities often has implications for shifts in social structures in the area. Indigenous peoples or local communities who have inhabited land for generations can be evicted or lose their customary rights, thus causing suffering and injustice for these groups. This can be interpreted as social changes and economic pressures faced by families around the mine have the potential to trigger vulnerability and social conflict. Thus, although coal mining can drive the economy, the socio-environmental consequences that arise cannot be ignored and require serious attention.

d. Landslide-Prone Areas and Potential Flooding

Sand mining without an official permit also increases the risk of landslides and potential flooding, especially as excavation in the mining area becomes deeper. The high exploitation of natural resources in this activity accelerates land degradation in a relatively short time, ultimately reducing

the quality of environmental conditions. Although former mining areas can be utilized for other economic activities, this still changes the balance of land use planning in the environment. Additionally, if mining is conducted in water catchment areas, the local water management system, as well as those in surrounding areas, can be disrupted. As a result, the potential for flooding increases, hurting communities in the mining area environment.

e. Sand Washing Waste

Based on research results, sand mining has negative impacts on the condition and quality of water in the surrounding areas, particularly where agricultural land is present, resulting in polluted and murky water. The improper disposal of wastewater from sand mining can lead to pollution of nearby water bodies, characterized by increased concentrations of heavy metals and a decreased water pH, which endangers aquatic biota. In addition to water pollution, excavation and sand transportation activities generate dust that is released into the open air. This dust can spread to surrounding settlements, especially during dry and windy weather, resulting in a decline in air quality. Not only dust, but also exhaust emissions from heavy equipment (such as excavators and dump trucks) and generators at mining sites, release pollutants (such as carbon monoxide, NOx, and SO_2) into the atmosphere.

f. Road Damage

Based on research results, other impacts felt by the community through sand mining activities include damage to road facilities and infrastructure that are often passed by vehicles transporting sand. With these activities, many village roads become damaged. This condition also worries residents because, with already damaged road conditions, there is a high risk of accidents, especially at night when visibility is limited, particularly during the rainy season. According to the writer's other research results, the real actions taken by communities affected by negative impacts include recovery efforts, such as creating plots around the mining area to regulate water flow and prevent landslides, as well as prevention efforts, including protesting against miners who continue to operate.

4. CONCLUSION

This legal research examines the critical issue of unlicensed Class C sand mining activities conducted on privately inherited land in Serag Village, Ponorogo Regency. The study employs an empirical legal research methodology with a descriptive qualitative approach, utilizing primary data from field interviews with heirs, village officials, and residents, supplemented by secondary legal materials and tertiary sources from academic literature.

The research addresses two fundamental questions: (1) the legal framework governing unlicensed sand mining on inherited land, and (2) the environmental consequences of such activities. Through comprehensive field observations and legal analysis, the study reveals that mining operations in Serag Village have been ongoing since 2017 without proper authorization, operating under the misconception that private land ownership exempts operators from obtaining official mining permits.

The findings demonstrate clear violations of Indonesian mining law, particularly Law Number 3 of 2020 concerning Mineral and Coal Mining, which mandates that all mining activities—regardless of land ownership status—must secure either a Mining Business Permit (IUP) or People's Mining Permit (IPR). The research documents that the mining operation utilizes heavy equipment, including excavators and transport vehicles, which directly contravenes IPR regulations that prohibit the use of heavy machinery and limit mechanical pump capacity to 25 horsepower.

From an environmental perspective, the unauthorized mining has caused extensive ecological damage including: severe land degradation through erosion and landslides, disruption of local flora and fauna ecosystems, water pollution from washing operations affecting agricultural areas, deterioration of road infrastructure, increased risks of flooding and further landslides, air pollution from dust and vehicle emissions, and diminished quality of life for surrounding communities due to noise, safety concerns, and health hazards.

The study concludes that weak law enforcement, inadequate government supervision, and low public awareness of legal rights have enabled these illegal operations to persist. Despite previous attempts to halt the activities, mining operations continue, highlighting systemic failures in regulatory oversight. The research highlights the pressing need for enhanced legal education, stricter enforcement mechanisms, and comprehensive government oversight to ensure that natural resource exploitation aligns with sustainability principles and environmental protection standards.

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