

Analysis of the Law Enforcement on Illegal Mining in the Rehabilitation Area of Gunung Menumbing Grand Forest Park, West Bangka Regency

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Abstract: Illegal tin sand mining in the rehabilitation area of Gunung Menumbing Forest Park (Tahura) in West Bangka Regency poses a serious threat to the ecosystem and the conservation functions of the area. However, the illegal tin sand mining occurs in the rehabilitation block of Gunung Menumbing Forest Park, a block that had already suffered damage due to natural factors. This study aims to analyze the implementation of criminal law against illegal mining activities and the effectiveness of law enforcement. The research adopts a socio-legal approach with an empirical juridical method, collecting data through document studies, field observations, and interviews with stakeholders in the area. The findings indicate that although legal regulations such as Law No. 41 of 1999 on Forestry and Law No. 32 of 2009 on Environmental Protection and Management are sufficiently comprehensive, their implementation still faces various obstacles. The hindering factors include limited personnel and surveillance technology, as well as the community's economic dependence on illegal mining. From 2023 to 2024, six criminal cases and seven suspects involved in illegal mining activities have been recorded in the rehabilitation block of Gunung Menumbing Forest Park. The study concludes that law enforcement has been ineffective due to weak legal structures and a social culture that is permissive toward environmental violations. Recommended actions include strengthening the capacity of law enforcement agencies, improving inter-agency coordination, and implementing community empowerment programs to create sustainable economic alternatives

Keyword: Illegal Mining, Forest Park, Rehabilitation.

INTRODUCTION

Illegal mining activities have become a serious threat to environmental sustainability, particularly in protected areas. According to data from the Ministry of Environment and Forestry in 2023, there are more than 8,900 illegal mining sites in conservation forests across Indonesia, with 326 sites located in the Bangka Belitung Islands Province(Yunus & Satory, 2023). Among these, 87 sites have been identified within the Mount Menumbing Grand Forest

Park (Tahura) in West Bangka Regency, with 45% situated in the rehabilitation block, which is intended as an ecosystem restoration area.

West Bangka Regency, as one of Indonesia's largest tin producers, faces a dilemma between economic potential and environmental sustainability. Since the Dutch colonial era, this region has been a tin mining center, contributing about 30% of the national tin production. Data from the Bangka Belitung Islands Provincial Mining Office show that the mining sector employs approximately 60% of the West Bangka workforce and contributes up to 45% of the regency's Gross Regional Domestic Product (GRDP) (Husin Tambunan et al., 2024). However, uncontrolled exploitation has resulted in massive environmental degradation, especially in protected areas.

Mount Menumbing Grand Forest Park, established through Forestry Ministerial Decree No. 679/Menhut-II/2009, is a conservation area covering 15,035 hectares, with 3,500 hectares designated as a rehabilitation block. This area holds strategic value as an ecosystem buffer and biodiversity reservoir, home to 234 plant species and 167 animal species, including 12 endangered species. According to research by the Bangka Belitung Natural Resources Conservation Agency in 2022, illegal mining activities have caused 27% forest cover loss in the rehabilitation block, with soil erosion reaching 45 tons per hectare per year(Putri et al., 2023).

Legally, the regulatory framework to protect conservation areas from illegal mining activities is comprehensive. Law No. 41 of 1999 on Forestry, amended by Law No. 18 of 2013 on the Prevention and Eradication of Forest Destruction, explicitly prohibits mining activities in conservation forests, with a maximum penalty of 15 years imprisonment and fines up to IDR 10 billion. Additionally, Law No. 5 of 1990 on the Conservation of Biological Natural Resources and Their Ecosystems strengthens the protection of conservation areas(Kunci, 2024).

However, a significant gap exists between *das sollen* (what should be) and *das sein* (what is) in law enforcement implementation. Data from the Directorate General of Environmental and Forestry Law Enforcement reveal that out of 126 identified illegal mining cases in Mount Menumbing Grand Forest Park from 2020 to 2023, only 23 cases (18.25%) progressed to the trial stage, with only 8 cases (6.35%) reaching legally binding verdicts.

Weak law enforcement is exacerbated by several structural factors. First, resource limitations: only 12 forest rangers are available to monitor the 15,035-hectare area, far below the minimum standard of one ranger per 500 hectares. Second, overlapping authorities among central, provincial, and regency governments in managing the park create coordination gaps exploited by illegal miners. Third, the local community's socio-economic dependence on mining, with about 40% of residents near the park relying on mining activities for their livelihoods.

Law enforcement efforts, such as joint operations involving forest rangers, West Bangka Police, and the Indonesian Armed Forces (TNI), have yet to yield optimal results. Of the 15 operations conducted in 2023, only 23 suction machines were confiscated, and 34 perpetrators were arrested, with a recidivism rate of 65%. This indicates that the current law enforcement approach fails to provide a deterrent effect or address root causes.

The complexity of this issue necessitates a comprehensive study on the effectiveness of law enforcement against illegal mining activities in the rehabilitation block of Mount Menumbing Grand Forest Park. This research is crucial due to the disparity between the available legal framework and its implementation, as well as the multidimensional impacts on ecological, social, and economic aspects. Moreover, no previous studies have specifically examined law enforcement in the park's rehabilitation block, despite its critical role as an ecosystem restoration zone.

Through this research, it is expected that factors influencing law enforcement effectiveness, challenges encountered, and alternative solutions for tackling illegal mining in

the park's rehabilitation block can be identified. The research findings can serve as a basis for formulating more effective law enforcement policies and strategies, balancing environmental protection and community welfare considerations.

METHOD

This research employs a socio-legal research method with an empirical juridical approach, combining doctrinal analysis of legal norms with empirical investigation of their field implementation. Data collection involves a triangulation technique, including document studies of relevant legislation such as Law No. 41 of 1999 on Forestry and Law No. 4 of 2009 on Mineral and Coal Mining, licensing documents, enforcement reports, and court rulings. Field observations in the rehabilitation block of Mount Menumbing Grand Forest Park were conducted to directly observe illegal mining activities and their impacts. In-depth interviews were carried out with key informants, including law enforcement officers (forest rangers, police, and prosecutors), park managers, local government officials, miners, and community members around the area.

Secondary data were obtained through scientific publications, research reports, statistical data, and mass media documentation related to illegal mining cases at the research site.

Data analysis was performed in three stages. First, coding and categorizing primary and secondary data based on key themes such as violation patterns, law enforcement processes, and factors influencing law enforcement effectiveness.

Second, analyzing the relationship between normative juridical aspects and social realities using a gap analysis approach to identify discrepancies between legal norms and their implementation. Third, interpreting the data holistically by considering the local community's social, economic, and cultural contexts to develop adaptive and contextual recommendations for improving the law enforcement system. Data validity was ensured through member checking with key informants and peer reviews by experts in mining and forestry law.

RESULTS AND DISCUSSION

Implementation of Criminal Law Related to Illegal Mining in Mount Menumbing Grand Forest Park.

Illegal mining in conservation areas such as Mount Menumbing Grand Forest Park (Tahura Gunung Menumbing), West Bangka Regency, represents a severe violation that damages ecosystems and disrupts forest rehabilitation functions. In the context of environmental criminal law, the regulation and enforcement of laws against illegal mining are governed by several key regulations, including Law No. 41 of 1999 on Forestry, Law No. 32 of 2009 on Environmental Protection and Management, and Law No. 3 of 2020 on Mineral and Coal Mining (Minerba Law), which amends Law No. 4 of 2009. This analysis evaluates whether the implementation of criminal law against illegal mining in the Mount Menumbing Grand Forest Park area aligns with the substance of these regulations and examines its application in the context of law enforcement.

Based on the Decree of the Director General of Natural Resources and Ecosystem Conservation No. 173/KSDAE/HKK/KSA.0/0/2023 concerning the Management Blocks of Mount Menumbing Grand Forest Park, West Bangka Regency, Bangka Belitung Province, specific management blocks have been designated as follows: Special Block 0.35 Ha, Collection Block 17.40 Ha, Utilization Block 264.38 Ha, Protection Block 942.07 Ha, and Rehabilitation Block 2129.81 Ha. The block details are as follows:



Map of the Menumbing Grand Forest Park Block

Furthermore, the relevant regulations currently provide a strong legal basis for addressing illegal mining, particularly in conservation forest areas. Law No. 41 of 1999 on Forestry emphasizes that conservation forest areas, including Tahura, are protected from illegal activities. Article 50 paragraph (3) letter a of the Forestry Law prohibits any person from exploiting natural resources, including mining, in forest areas without permission. Violations of this provision can lead to criminal penalties as stipulated in Article 78 paragraph (5), which imposes a maximum prison sentence of 10 years and a fine of up to IDR 5 billion(Anwar & Farhaby, 2021).

Meanwhile, Law No. 32 of 2009 on Environmental Protection and Management strengthens the legal framework by incorporating the precautionary principle and strict liability. Article 109 of the Environmental Law stipulates that any activity potentially damaging to the environment without an environmental permit is a criminal offense, punishable by a maximum of 3 years in prison and a fine of up to IDR 3 billion. This provision is highly relevant for prosecuting illegal miners who not only damage forest ecosystems but also pollute the surrounding environment(Anwar, n.d.).

Additionally, the Mining Law (UU Minerba) specifically regulates mining activities. Article 158 of the Mining Law states that anyone engaging in mining without a permit (Mining Business License (IUP), Special Mining Business License (IUPK), or People's Mining License (IPR)) is subject to a maximum prison sentence of 5 years and a fine of up to IDR 100 billion. This provision provides an explicit legal basis for addressing illegal mining in both non-forest and conservation areas.

In terms of substance, the applicable regulations demonstrate clarity and completeness in the criminalization of illegal mining. However, challenges arise in the implementation of these regulations on the ground, particularly in the enforcement process, which often faces technical, structural, and cultural barriers.

Although regulations are in place, the implementation of criminal law against illegal mining in the Tahura Gunung Menumbing area is far from optimal. Law enforcement is often hindered by weak coordination between agencies, limited capacity of law enforcement officers, and the influence of political and economic pressures. In practice, there are several key challenges affecting the effectiveness of criminal law enforcement against illegal mining in this area.

First, the mismatch between the substance of the law and the reality of law enforcement often becomes an obstacle. For example, although the regulations provide heavy sanctions for illegal miners, their implementation tends to be suboptimal due to conflicts of interest at the local level. Illegal miners often receive protection from certain individuals with economic interests. This results in weak investigation and prosecution processes, meaning illegal miners frequently escape adequate punishment(Yanto & Salbilla, 2023).

Second, the lack of law enforcement resources also poses a challenge. The vast area of Tahura Gunung Menumbing requires intensive surveillance, but the number of forest rangers and law enforcement officers is often insufficient. Furthermore, supporting facilities and technologies, such as drones for remote monitoring or mapping devices, are often not adequately available. This condition makes it difficult to identify and take action against illegal mining activities, which are often carried out covertly.

Third, cultural and socio-economic factors also play a role in weakening law enforcement. Many local people engage in illegal mining due to economic pressures and limited alternative livelihoods. In such circumstances, a purely criminal law approach is insufficient to solve the problem. A more holistic approach is needed, including community empowerment and the provision of sustainable economic alternatives.

To analyze this issue, Soerjono Soekanto's law enforcement theory can be used to evaluate three main elements: legal substance, legal structure, and legal culture. In terms of substance, the existing regulations are already strong. However, at the legal structural level, weaknesses in coordination and resources are major issues. From the legal cultural perspective, the existence of social norms that are permissive toward illegal mining hinders the successful implementation of the law.

The deterrence theory is also relevant for assessing the effectiveness of criminal sanctions in preventing illegal mining activities. According to this theory, the threat of severe punishment can deter offenders from committing crimes, as long as the punishment is consistently enforced. However, in the context of Tahura Gunung Menumbing, weak law enforcement has resulted in criminal sanctions failing to provide a significant deterrent effect. Instead, illegal mining activities continue because the perpetrators feel that the legal risks they face are relatively low.

Additionally, Satjipto Rahardjo's legal ecology theory can be used to understand the relationship between law, society, and the environment. In the context of illegal mining, criminal law must function as a tool for sustainable environmental protection, not merely as an instrument of punishment. Therefore, law enforcement must simultaneously consider environmental aspects and the well-being of local communities.

Effectiveness of Law Enforcement on Illegal Mining in Menumbing Grand Forest Park, West Bangka

Environmental criminal law enforcement in the Menumbing Grand Forest Park (Tahura) faces various challenges that hinder its effectiveness. The illegal mining occurring in the area damages the ecosystem and threatens environmental sustainability, yet the existing law enforcement efforts often fail to yield optimal results. Several factors influencing the effectiveness of law enforcement include structural, cultural, and legal system aspects.

Structurally, law enforcement against illegal mining in Tahura Gunung Menumbing faces coordination issues between agencies. The main problem lies in the lack of synchronization between the roles and responsibilities of the relevant institutions. Firstly, local governments often do not have effective coordination mechanisms with law enforcement agencies.

For example, forest rangers responsible for monitoring forest areas do not always have direct access to address illegal mining cases. Similarly, the police are often understaffed and lack the expertise to handle complex environmental crimes.

Moreover, this weak coordination is worsened by the absence of standard protocols between agencies in dealing with illegal mining cases. Each institution tends to operate independently, without building an integrated strategy. For instance, forest rangers, tasked with overseeing the forest area, do not always have access or authority to directly address illegal mining issues. Similarly, police officers may lack the resources or experience to handle environmental crimes related to illegal mining activities. Furthermore, the limited availability of surveillance technology, such as drones or satellites, hinders early detection of illegal activities in the vast and difficult-to-access forest areas(Heni Marlina & Aprita, 2024).

From a cultural and socio-economic perspective, local communities are often involved in illegal mining activities due to economic dependence. Many illegal miners in Tahura Gunung Menumbing come from communities with limited access to decent employment opportunities.

This adds complexity to law enforcement, as these individuals often feel that they will not receive fair justice if they are punished, considering their difficult economic circumstances. A purely criminal law approach that does not take into account these socio-economic factors is often ineffective in reducing illegal mining practices because communities do not feel threatened by criminal penalties if no alternative economic solutions are offered. Therefore, the effectiveness of law enforcement in this context depends not only on punitive measures but also on economic empowerment programs that can replace their reliance on illegal activities.

Furthermore, despite clear legal regulations, such as Law No. 32 of 2009 on Environmental Protection and Management and Law No. 3 of 2020 on Mineral and Coal Mining, which regulate illegal mining activities and their impact on the environment, implementation is often hindered by slow legal processes and penalties that fail to provide a sufficient deterrent effect. Some reports indicate that even when offenders are convicted, the sentences imposed often do not reflect the extent of the damage caused by illegal mining activities. This serves as an indicator that law enforcement on the ground fails to make a significant impact in preventing similar violations in the future.

Applying the law enforcement theory developed by Soerjono Soekanto can help explain why law enforcement in Tahura Gunung Menumbing is less effective. In this theory, there are three factors that influence the success of law enforcement: legal substance, legal structure, and legal culture. In terms of substance, the existing regulations are quite good, but at the legal structural level, the lack of coordination between the relevant agencies and the limited resources available weakens law enforcement.

Regarding legal culture, social norms that are permissive toward illegal mining and the community's dependence on such activities hinder the effectiveness of criminal law enforcement. In this context, the law enforcement theory emphasizes that the law must align with the existing social and cultural conditions to be accepted and applied effectively(Yanuari, 2020).

Additionally, the deterrence theory, which posits that the threat of severe punishment can have a deterrent effect on law violations, is also relevant to this analysis. Although the law imposes significant criminal penalties for illegal miners, many offenders feel that the legal risks they face are too low or not proportional to the profits they gain. This shows that although there are legal threats, without consistent enforcement and strict implementation, a deterrent effect will not be achieved(Hijriani et al., 2022).

Given these factors, it is important to explore how a multidimensional approach can be applied to environmental criminal law enforcement. Combining strict law enforcement with preventive approaches involving public education, as well as providing sustainable economic alternatives, can improve the effectiveness of law enforcement. Therefore, law enforcement that is not only punitive but also rehabilitative and preventive will be more successful in reducing illegal mining practices. For instance, involving local communities in environmental rehabilitation efforts or providing skills training could reduce their dependence on illegal mining.

Illegal mining in the Menumbing Grand Forest Park (Tahura), West Bangka, is a complex and recurring issue. These illegal mining activities not only damage the forest ecosystem but also potentially violate both environmental and mining laws. Tahura

Menumbing should be a protected conservation area, yet illegal exploitation remains rampant. The presence of illegal mining presents a challenge for law enforcement, as it involves various factors such as the local economy, weak oversight, and the limitations of law enforcement agencies.

Furthermore, to assess the effectiveness of law enforcement against illegal mining in the area, the theoretical approach of Soerjono Soekanto is relevant. Through this framework, the analysis will focus on how effectively law enforcement addresses illegal mining activities in Tahura Menumbing and the obstacles hindering this process.

The effectiveness of law enforcement against illegal mining in Tahura Menumbing can be analyzed using Soerjono Soekanto's theory through the following five factors: The legal substance regulating conservation areas like Tahura Menumbing is already quite adequate. For example, Law No. 41 of 1999 on Forestry and Law No. 32 of 2009 on Environmental Protection and Management clearly outline sanctions for those who destroy forests and engage in illegal mining activities. However, the effectiveness of these laws is often impeded by inconsistent interpretations and weak enforcement on the ground. The lack of synergy between central and local regulations further exacerbates the effectiveness of law enforcement.

Law enforcement against illegal mining requires active roles from law enforcement agencies such as the police, forestry services, and other relevant institutions. Unfortunately, the limited number of personnel, weak oversight, and potential involvement of irresponsible individuals often become obstacles. The lack of firmness in taking action against illegal miners allows these activities to continue on a large scale in conservation areas.

This factor includes all resources supporting law enforcement, including technology, budget, and surveillance infrastructure. In Tahura Menumbing, the lack of surveillance facilities such as satellite technology or drones makes it difficult for authorities to detect hidden illegal mining sites. Moreover, limited budgets lead to suboptimal efforts in enforcement and patrols.

Illegal mining activities are often driven by the local community's economic factors. Difficult economic conditions and limited job opportunities force local people to rely on illegal mining. They tend to ignore legal aspects in order to meet daily needs. A lack of education about environmental damage worsens the situation.

The low legal culture in the community is a major factor in why illegal mining is difficult to eradicate. Low legal awareness and the perception that natural resource exploitation is normal make the community feel no guilt for engaging in illegal activities. The permissive culture among law enforcement officers and local communities further complicates law enforcement efforts ('Ulya et al., 2024).

Based on Soerjono Soekanto's theory, the effectiveness of law enforcement against illegal mining in Tahura Menumbing is far from optimal. While legal substance is in place, enforcement is hindered by weak oversight, limited resources, and low legal awareness in the community.

Economic and cultural factors are significant barriers that must be addressed through a comprehensive approach, such as increased surveillance, alternative economic empowerment, and environmental education for the local community. Without concrete steps and strong coordination among stakeholders, efforts to enforce the law against illegal mining in conservation areas like Tahura Menumbing will continue to face numerous challenges.

CONCLUSION

Law enforcement against illegal mining in the Rehabilitation Block of Menumbing Grand Forest Park (Tahura), West Bangka Regency, presents significant complexities. Despite the existence of a comprehensive regulatory framework, the implementation of law enforcement remains far from optimal. Of the 126 illegal mining cases identified during the 2020-2023 period, only 23 cases (18.25%) were successfully processed through trial, with just 8 cases (6.35%) resulting in legally binding decisions.

Various structural and cultural factors are the main obstacles to the effectiveness of law enforcement. The limited resources, with only 12 monitoring personnel for an area of 15,035 hectares, create significant gaps in surveillance. Illegal mining has caused severe environmental damage, with 27% of forest cover destroyed and a soil erosion rate of 45 tons/ha/year. This situation is worsened by overlapping authority among agencies and the local community's economic dependence on mining activities.

The current law enforcement approach has not been able to provide an adequate deterrent effect. Several factors contribute to this, including weak inter-agency coordination, local conflicts of interest, and social norms that are permissive toward illegal mining. The local community remains heavily reliant on the mining sector, with about 40% of the population depending on mining activities, which further complicates law enforcement efforts.

To address these issues, a comprehensive and integrated strategy is required. Key recommendations include strengthening the capacity of law enforcement officers, improving inter-agency coordination, and developing community economic empowerment programs. The legal approach should not be purely punitive but also preventive and rehabilitative, considering the balance between environmental protection and the well-being of the local community. Only with such a holistic approach can law enforcement against illegal mining in Tahura Gunung Menumbing become more effective and sustainable.

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