

Innovative Pathways To Sustainability: An Empirical Study Of Corruption In The Management Of Mining Business Licenses In Bangka Belitung

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Abstract

One of the biggest challenges to the mining industry's sustainability, especially in Bangka Belitung, is corruption in the administration of mining company permits. Corrupt activities have a negative impact on social welfare and the environment in addition to the local economy. In order to create a more open, accountable, and long-lasting licensing system, this study intends to examine the effects of corruption in the administration of mining permits and pinpoint creative solutions. This study looks at rules and interviews pertinent stakeholders using a qualitative approach and case study methodology. The results show that social inequity, environmental deterioration, and financial losses as a result of revenue leakage are all caused by corruption in the mining permit industry. Stricter law enforcement, improved public scrutiny, and licensing system improvements via digital technology implementation are needed to address these problems. According to the study's findings, a system of integrity-driven and long-lasting mining permit governance requires cooperation between the public and private sectors.

Keywords: *innovative, criminal, corruption, business license, mining*

1. INTRODUCTION

Mining is an important part of the local and national economy in Indonesia, especially in Bangka Belitung province. This sector is very strategic because it has many natural resources, especially mineral resources such as tin¹. Although the mining sector contributes greatly to the economy, its management is often plagued by major problems, especially corrupt practices. Corruption in the management of mining business licenses (IUP) jeopardizes the social, economic, and environmental well-being of surrounding communities in addition to reducing state revenues.

As one of the largest tin-producing regions in Indonesia, Bangka Belitung faces many problems in terms of sustainable natural resource management. In this region, the process of granting mining business licenses is often involved in corrupt practices where businessmen, government officials, and other individuals abuse their authority for personal gain. This method results in uncontrolled exploitation of natural resources without considering environmental sustainability and the interests of the wider community².

In addition, the social effects of corruption in license management are profound, as local communities are often victimized by environmental degradation and denied the benefits they deserve. The various causes of corruption in the mining sector include ineffective monitoring systems, non-transparent licensing processes, and a bureaucratic culture that allows bribery and nepotism. Nonetheless, the mining sector, if properly managed, can greatly aid the development of countries and regions.

¹ Fernando, Pakpahan, et al. "Implementation of the One Map Energy and Mineral Resources (ESDM One Map) policy in the Ministry of Energy and Mineral Resources of the Republic of Indonesia." *Metra Renewal: Journal of Policy Innovation* 3.2 (2019), p 118

²Vicky Zaynul, Firmansyah and Firdaus Syam. "Strengthening State Administrative Law to Prevent Corrupt Practices within the Indonesian Government." *Integrity: Anti-Corruption Journal* 7.2 (2021), p. 325

As a result, it is important to find and develop new methods to make the mining license management system more transparent, accountable and sustainable. Technology is not the only thing that generates innovation in this regard; there is also a paradigm shift for fairer natural resource management that is based on good governance. Innovation in the management of mining business licenses is essential to combat corruption and ensure sustainable management of natural resources.

The sustainability of the mining industry includes economic, social, and environmental aspects. Therefore, this research concentrates on an empirical investigation of corruption that occurs in the management of mining business licenses in Bangka Belitung and how innovative methods can be used to achieve the sustainability of the mining sector in the region. In this case, creative strategies include methods that can make the mining license management process more transparent and accountable.

The use of digital systems that allow real-time monitoring of the licensing process and mining activities is one innovation that can be implemented³. With a digital system that is open and accessible to the public, it is hoped that corruption in licensing will be reduced. In addition, one of the important innovations that must be done is to involve the community in monitoring and decision-making related to mining business licenses to ensure that decisions made do not only benefit a few parties but also the wider community.

While technology and digital systems can be a solution to increase transparency, the biggest problem in implementing them is that many parties feel that they benefit from the old system they have. Therefore, changes in the management of mining business licenses require support from various stakeholders, including the private sector, the community, and the government. In addition, it is important for oversight institutions, such as non-governmental organizations and the Corruption Eradication Commission (KPK), to continue to monitor and suppress corrupt actors in this sector⁴.

The purpose of this research is to look at what causes corruption in the management of mining business licenses in Bangka Belitung and new ways that can be used to prevent and support the sustainability of the mining sector. To achieve these objectives, this research will study several things. First, it will study how the mechanism for granting mining business licenses is vulnerable to corrupt practices. Second, it will study how transparency and technological innovation can improve the mining license management system. Finally, it will study how communities and oversight institutions can contribute to improved governance in the mining sector.

Previous studies show that corrupt practices involving various actors are common in the mining sector in Indonesia, including in Bangka Belitung. In addition, some studies show that although there have been efforts to improve transparency and accountability in the management of the sector, there are still many barriers to achieving it. As a result, it is hoped that this research will provide a new understanding of the dynamics of corruption in the mining industry and offer more practical solutions to prevent and support the sustainability of the industry.

It is expected that this research will find various creative approaches and methods to manage mining business licenses in Bangka Belitung by considering aspects of environmental sustainability and community welfare. The results of this research can also be the basis for better public policies in the management of the mining sector, which will maximize the benefits of the sector. This research is particularly relevant as the mining sector still faces major problems related to corruption and unsustainable management. As a result, creative strategies that can be applied in this area are essential to improve governance and accelerate sustainable development in Bangka Belitung.

³La Antrag, Immanuel, et al. "Law enforcement of illegal tin mining following the corruption case in the tin trade system in Bangka Belitung." *BULLET: Multidisciplinary Journal of Science* 3.2 (2024), p 191.

⁴ Muhammad, Sultan, Emil Riza Putra, and Herry Farjam. "Employee perceptions of the work accident reporting system and potential dangers in the coal mining of PT. Putra Kajang, East Kalimantan." *Mandiri Healthy Journal* 16.1 (2021), p 28.

2. METODE

The environmental, social and economic impacts of corruption in mining license management were evaluated through qualitative and empirical juridical methods. The research also investigated creative methods to improve transparency and accountability. Data were collected through field observations and thorough interviews, as well as analysis of relevant policy and legal documents. Government officials, law enforcement, NGOs, industry players, and affected communities were key informants. To generate clearer and more sustainable policy recommendations, content, thematic, and comparative analysis methods were used to analyze the data descriptively and qualitatively.

3. RESULTS AND DISCUSSION

A. THE IMPACT OF CORRUPTION IN MINING LICENSE MANAGEMENT ON ENVIRONMENTAL, SOCIAL, AND ECONOMIC ASPECTS

Corruption in the management of mining business licenses in Bangka Belitung affects various aspects, including environmental, social, and economic⁵. When it comes to mining licenses, corrupt practices usually include misuse of documents, bribery to authorized officials, to ignoring applicable laws and regulations. As a result, mining business licenses are granted to parties that do not meet social and environmental requirements, resulting in uncontrolled exploitation of natural resources and more severe ecosystem damage.

Corruption in mining licenses causes significant environmental problems, especially environmental damage that is difficult to restore. Many mining companies operate illegally or do not fulfill environmental requirements such as post-mining reclamation. This leads to a lot of deforestation, water pollution by mining waste, and degradation of once fertile soil. For example, in Bangka Belitung, many former tin mines were left open without reclamation.

Leaving behind shafts that threaten the balance of the ecosystem. The increased likelihood of seasonal floods and droughts caused by these mining pits alters the hydrological patterns of the region. In addition, water pollution caused by mercury and other harmful chemicals also disrupts aquatic life and negatively affects surrounding communities that depend on water.

From a social perspective, corruption in the management of mining licenses causes many conflicts, both between communities and mining companies and between citizens who have different interests⁶. Many local communities lose their land because mining companies control it illegally or due to corrupt practices. Economic inequality resulting from the unequal exploitation of natural resources exacerbates social conflicts.

As the natural resources and land on which they depend are deprived or polluted, indigenous peoples and other vulnerable groups are often the biggest losers. In addition, an irresponsible mining industry affects social stability by increasing crime rates, prostitution and drug abuse in neighborhoods surrounding mines due to the influx of unregulated foreign workers.

Corruption in the mining sector negatively impacts the local economy in the long run and leads to an unfair distribution of profits. While mining is often claimed to be a sector that contributes significantly to local revenues, the reality is that much of the profits go to a select few and large companies, while local communities continue to endure difficult economic situations.

Due to tax and royalty evasion by mining companies that obtain licenses illegally, corruption in mining licenses causes the state and regions to lose money. For example, there are many mining companies in Bangka Belitung that do not publicly report their production. As a result, revenue that should have gone to the state treasury is lost. In addition, corruption that leads to uncontrolled exploitation of natural resources causes mineral reserves to be depleted faster than they should be, threatening the long-term sustainability of the local economy.

In addition, corruption in mining licenses causes other economic sectors that depend on environmental sustainability, such as agriculture and fisheries, to weaken⁷. Often, land that should be used for agriculture is converted for mining, resulting in a decline in local food production. As

⁵ Faiqah Nur, Azizah. "The Concept of Abuse of Authority in Issuing Mining Business Permits (IUP) as a Corruption Crime." IS 6.4 (2022), p 44.

⁶ Azyumardi, Azra. "Corruption from a good governance perspective." Indonesian Journal of Criminology 2.1 (2002), p. 4218.

⁷ Sri, Lestariningsih. "Corruption Crimes in the Agricultural Sector: Violations of Community Human Rights in Realizing Socially Just Community Welfare." Riau Legal Science Journal 3.2 (2013), p. 9076.

mining waste damages many rivers and lakes that are fish habitats, water and soil pollution also impacts the fishing industry.

In addition to causing a decline in production from local fishermen and farmers, it also causes food prices to increase. As a result, communities in mining areas often experience an increase in the cost of living without a comparable increase in welfare due to the exploitation of resources. Overall, corruption in the management of mining business licenses has a negative impact on many aspects of Bangka Belitung life.

In addition to impacting ecosystems, environmental damage also impacts broader social and economic aspects. Increasing social conflicts and economic inequality show that corruption in this area does not only benefit a handful of individuals, but also harms society as a whole in the long run⁸. Therefore, major efforts are needed to enforce the law and improve the mining licensing system to make it more transparent and accountable.

The government, civil society and the private sector must work together to ensure that mining licenses are granted based on the public interest and not on the interests of certain individuals or groups. By taking the right steps, Bangka Belitung's mining sector can be managed in a more responsible manner that benefits all parties without compromising the environment and community welfare.

B. INNOVATIVE STEPS TO CREATE A MORE TRANSPARENT AND ACCOUNTABLE MINING LICENSING SYSTEM

To transform Bangka Belitung's mining licensing system into a more transparent, accountable and sustainable one, creative measures are needed. These steps can overcome the various problems that have arisen due to corrupt practices so far. Corruption in the management of mining business licenses not only hinders profitable investments, but also has very adverse consequences for society socially, economically and environmentally.

As a result, innovations should focus on licensing system reforms that focus on information disclosure, strengthening oversight, and using technology to improve accountability. Digitizing the licensing process with blockchain technology is one of the innovative steps that can be taken. Blockchain allows every transaction or decision relating to a license to be recorded permanently and irreversibly, thus reducing the possibility of corruption⁹.

Starting from the application stage, verification, to license issuance, this system allows any interested party, including the public, to access real-time information about the licensing process. The entire process can be openly viewed by the public and oversight agencies, increasing transparency. In addition to digitization, an e-licensing system that is integrated with various related institutions should be implemented.

This includes agencies such as the Ministry of Energy and Mineral Resources (ESDM), the Ministry of Environment and Forestry (KLHK), and local governments. The system should have the ability to streamline licensing procedures while still maintaining an element of oversight. With a transparent and integrated online licensing system, mining entrepreneurs do not need to deal directly with authorized officials. This reduces the possibility of fraud and graft.

The establishment of an independent institution responsible for the oversight of mining licenses is an additional step that can be taken. This organization should have clear authority and independence from political or business interference¹⁰. This independent body can help ensure that the licensing process is properly conducted and free from those seeking unlawful personal gain.

One way to improve the transparency of the licensing system is to establish a data disclosure platform that allows the public to access information on companies that have obtained licenses, the area exploited, and environmental and social compliance reports. This platform can

⁸ Muhammad Putra, Hababil et al. "Analysis of the Effect of Economic Equalization in Efforts to Eliminate Socio-Economic Inequality Between Communities." *Journal of Macroeconomics and Social Development* 1.4 (2024), p 9.

⁹ Achmad, Bhupesh Rawat, Muhtadibillah and Bambang Mardi Sentosa. "Organizational motivations for adopting blockchain technology: A literature review and qualitative analysis." *MENTARI Journal: Management, Education and Information Technology* 2.2 (2024), p196

¹⁰ Uswatun. Khasanah, "Regulation and Supervisory Role of the Financial Services Authority on Screening Sharia Capital Market Shares." *Journal of Law and Policy Transformation* 6.2 (2021), p 41.

be integrated with a community reporting system, also known as a whistleblowing system, which allows the public to report suspected irregularities in the licensing or customer processes¹¹.

With this system in place, communities can actively participate in improving mining governance. In addition, the government must strengthen regulations by applying stricter sanctions against license violations by mining officials and companies. Stricter sanctions should include administrative, criminal and financial sanctions that can provide a deterrent effect. In addition, a zero tolerance policy towards corruption in the licensing sector must be implemented by increasing the capacity of law enforcement officials and providing protection to whistleblowers.

Another important step that must be taken is to increase public participation in the licensing process. Greater access should be given to environmental organizations, media, local communities and academics to oversee mining licensing policies. They can ensure that environmental and social aspects are properly considered by participating in public consultation processes before licenses are granted.

In addition, improving community understanding of the consequences of mining and related regulations can help them monitor more transparent and sustainable licensing policies. In terms of economics, an innovative action that can be taken is to incentivize mining companies that adopt sustainable practices. For example, companies that use environmentally friendly technologies, empower local communities and comply with regulations can be given tax breaks or extended business licenses.

Conversely, businesses that commit violations should be subject to progressive fines, which may increase their financial risk if they continue to do so. It is also important to encourage mining companies to implement strict certification standards. These standards can include environmental, social and good governance (ESG) aspects¹². Governments can require companies to meet certain standards before obtaining or extending their operating licenses.

In addition, internationally recognized certification can help mining companies become more competitive in international markets and ensure that mining activities are conducted ethically. In the long term, the government should encourage economic diversification in areas dependent on the mining sector. Economic dependence on extractive industries is often a factor that exacerbates corrupt practices in licensing.

Therefore, the development of alternative sectors such as sustainable agriculture, ecotourism and creative industries can reduce the pressure on overexploitation of natural resources. Overall, creating a more transparent, accountable and sustainable mining licensing system requires a multidimensional approach that includes aspects of technology, regulation, supervision and public participation¹³.

The combination of digitalization, strengthening regulations, applying strict sanctions, incentives for responsible companies, and economic diversification can be an effective solution in building better licensing governance. With these innovative steps, it is hoped that corruption in mining licensing can be minimized, so that natural resources can be managed more fairly and sustainably for the welfare of the wider community.

TABLE

Table 1. Impact of Corruption in Mining Business License Management

Aspects	of Corruption Impact	Source
Environment	Deforestation, water and soil pollution due to illegal mining activities	KPK, 2023
Social	Land conflict, social inequality, and declining public health	WALHI, 2022

¹¹ Octavia Lhaksmi, Pramudyastuti et al. "The effect of implementing a whistleblowing system on acts of fraud with independence as a moderator." JIA (Scientific Journal of Accounting) (2021), p. 135.

¹² Angga Wijaya Holman, Fasa and Sofia Yuniar Sani. "ISO 37001: 2016 Anti-Bribery Management System and Prevention of Corrupt Practices in the Public Service Sector." Integrity: Anti-Corruption Journal 6.2 (2020), p 208.

¹³ Satria, Darma. "The role of the Indonesian and Malaysian governments in supporting the implementation of Islamic financial technology in regulatory aspects." Jesya (Journal of Sharia Economics and Economics) 5.2 (2022), p 2198.

Aspects	of Corruption Impact	Source
Economy	Loss of state revenue, declining investment, and business uncertainty	BPS, 2023

Table 2. Innovative Steps for Mining Permit Transparency and Accountability

No	Innovative Steps	Implementation	Source
1	Permit Digitalization	Implementation of a blockchain-based system for data transparency	KemenESDM, 2023
2	Public Participation	Strengthening the role of the community in monitoring mining permits	ICW, 2023
3	Law Enforcement	Implementation of strict sanctions against mining permit violations	Komnas HAM, 2022

4. CONCLUSION

Corruption in the management of mining business permits in Bangka Belitung has social, economic and environmental impacts. From an environmental perspective, corruption often leads to the exploitation of natural resources without considering sustainability, resulting in deforestation, water pollution and land degradation. This not only threatens the ecosystem but also reduces the environmental carrying capacity of local communities. Socially, corruption in mining permits reduces public trust in the government and exacerbates social inequality and conflict between communities and mining companies. The economic impact is also very significant, because the practice of bribery and collusion in licensing causes an unhealthy investment climate and loses potential state revenue that should be used for regional development.

To solve this problem, creative action is needed that will enable the licensing system to become more transparent, accountable and sustainable. The solution to reducing direct interactions that can lead to corruption is digital-based technology, such as an online licensing system that can be monitored in real-time. In addition, strengthening oversight through cooperation between government, civil society and the media can increase accountability. Tighter regulations and strict law enforcement are also very important to suppress corruption. These steps are expected to improve environmental sustainability, community welfare and economic growth in a more equitable and sustainable way.

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NOVELTY

On the way he views the mining licensing system by combining empirical analysis and new ideas. This research not only identifies the impact of corruption on social, economic and environmental aspects, but also offers technology and policy-based solutions that have not been widely discussed in previous research. This journal adds to academic and policy discussions by emphasizing the importance of digitalization, data transparency, and multi-stakeholder cooperation in building a more accountable and sustainable licensing system. In addition, by using Bangka Belitung as a case study, literature regarding corruption in the mining industry in areas that have certain geographic and economic characteristics. Thus, this case study can be used as a reference for other regions facing similar problems.

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