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Analysis of the Implementation of Law Number 4 of 2009 concerning Mineral and Coal Mining, Tax Relevance: Through a Literature Review

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Abstract
Indonesia's mineral and coal mining sector continues to face persistent governance challenges, including regulatory inconsistency, limited transparency, and weak fiscal accountability. Although Law Number 4 of 2009 – introducing the IUP/IUPK licensing system – was intended to strengthen state control and promote sustainable resource management, its practical outcomes remain inconsistent. Addressing the research gap on how legal reforms interact with fiscal governance, this study analyzes the implementation of the law and its taxation relevance through a systematic literature review of academic publications, official reports, and regulatory documents. Using a qualitative content analysis approach, the study identifies recurring issues such as overlapping regulations, legal uncertainty, and insufficient supervision, which undermine the expected improvements in mining governance. The results also show that the mining taxation framework – comprising income tax, VAT, land and building tax, non-tax state revenues (PNBP), and the Revenue Sharing Fund (DBH) – holds strategic importance for ensuring equitable fiscal distribution, yet suffers from low compliance and weak monitoring mechanisms. The study contributes to existing scholarship by demonstrating that effective mining governance requires not only legal reform but also coherent fiscal policy design and integrated regulatory enforcement. Practically, these findings suggest that enhancing regulatory harmonization, strengthening fiscal transparency, and improving intergovernmental coordination are essential to optimizing state revenue and ensuring that the mining sector supports long-term sustainable development.

INTRODUCTION

Indonesia possesses abundant mineral and coal resources that have long served as strategic assets supporting both national economic growth and regional development. These resources require careful, transparent, and sustainable management to ensure that their exploitation contributes meaningfully to public welfare.[1] To meet these governance needs, the government enacted Law Number 4 of 2009 to replace Law Number 11 of 1967, providing a more comprehensive legal framework governing licensing, supervision, business conduct, and sanctions within the mining sector.[2] The law affirms that mineral and coal resources are controlled by the state and managed through coordinated authority between central and regional governments within a transparent and accountable licensing system.[3]

Beyond regulating resource utilization, the Mineral and Coal Mining Law also underlines the importance of environmental protection, transparency, and public participation. These principles reflect the government's commitment to balancing resource development with ecological sustainability and community interests. Administratively, mining businesses are required to obtain exploration and exploitation permits, while regional governments are accorded authority in licensing and supervision under the framework of regional autonomy.[4]

Despite this regulatory structure, a number of implementation challenges persist. Administrative obstacles, low compliance among business actors, and recurring violations disrupt the effectiveness of the law. Regulatory inconsistencies and overlapping authority between central and regional institutions further contribute to legal uncertainty. Existing studies indicate that these problems stem not only from weak enforcement but also from institutional and regulatory designs that have not fully aligned with principles of modern mining governance. Research on extractive industries emphasizes that effective mining governance requires the integration of legal rules, technical supervision, and fiscal instruments as an interconnected policy framework. This

[1] Kiki Apriliyanti and Darlin Rizki, 'Renewable Energy Policies: A Case Study of Indonesia and Norway in Sustainable Energy Resource Management', *Jurnal Ilmu Pemerintahan Widya Praja* 49 (November 2023): 186–209, https://doi.org/10.33701/jipwp.v49i2.36843246.
[2] D. Wulan, 'The State's Right to Control and Local Government Authority in the Mining Sector: A Legal-Policy Research', *Administrative and Environmental Law Review* 5, no. 2 (2021), https://doi.org/10.25041/aelr.v5i2.4079.
[3] P. Astomo, 'The Problems in Mineral and Coal Mining Regulations Perspectives Political Law and Responsive Law', *Kanun Jurnal Ilmu Hukum* 23, no. 1 (2021), https://doi.org/10.24815/kanun.v23i1.19949.
[4] Nandang Sudradjat, *Teori Dan Praktik Pertambangan Indonesia Menurut Hukum* (Pustaka Yustisia, 2010).

suggests that the success of Law Number 4 of 2009 is inseparable from the coherence of its taxation and revenue mechanisms.[5]

In the context of taxation, the mining sector constitutes one of the most significant sources of both national and regional revenues.[6] Law Number 4 of 2009 not only provides the legal framework for licensing and supervision but also establishes the fiscal mechanisms that govern taxes, royalties, and other forms of state revenue derived from mining activities. From a theoretical standpoint, fiscal arrangements in extractive industries are expected to capture resource rents efficiently, ensure equitable distribution, and support long-term development. The *resource rent taxation* theory suggests that the state should design fiscal instruments that maximize public benefit while minimizing distortions in investment decisions. In principle, the provisions in the Mineral and Coal Mining Law reflect these objectives by mandating transparent and accountable revenue collection.

However, several studies reveal that the implementation of taxation mechanisms in the mining sector remains suboptimal, particularly due to administrative weaknesses, low compliance rates, and persistent illicit extraction practices. These challenges are closely related to the broader governance issues within Indonesia's mining regulatory system.[7] The theory of *responsive law* emphasizes that effective legal frameworks must adapt to social realities, institutional capacity, and enforcement dynamics. Yet, in practice, the implementation of mining regulations often falls short of this ideal, as enforcement is constrained by limited resources, fragmented authority, and inconsistencies across regulatory documents. As a result, the legal system struggles to respond adequately to violations and rapidly evolving industry practices.

Another structural challenge lies in the overlapping authority between central and regional governments, especially after the introduction of decentralization policies. While *fiscal decentralization* theory argues that devolving fiscal authority to local governments can enhance efficiency and accountability, empirical studies in Indonesia's extractive sector suggest otherwise. Fragmented authority has sometimes led to regulatory inconsistencies, competing interpretations of fiscal provisions, and divergent

[5] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Laporan Akhir Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*, Kementerian Hukum dan HAM RI, 2020.
[6] Fauzul Hanif Noor Athief et al., 'Intellectual Structure of Islamic Capital Market Studies: A Bibliometric Approach', *Journal of Scientometric Research* 14, no. 1 (May 2025): 239–54, https://doi.org/10.5530/jscires.20250562.
[7] A. Wijaya, *Tata Kelola Pertambangan: Antara Regulasi Dan Kepentingan Negara* (Media Pressindo, 2023).

enforcement priorities across jurisdictions. These conditions contribute to legal uncertainty, hinder investment, and reduce the effectiveness of taxation as a tool for revenue generation and regional development.[8]

By considering various regulatory issues, implementation weaknesses, and inconsistencies between legal and fiscal aspects in the mineral and coal (minerba) sector, this study seeks to fill an academic gap through an integrative literature review that examines three main aspects. First, it analyzes the extent to which the implementation of Law Number 4 of 2009 aligns with the mandated principles of governance. Second, it identifies the challenges and problems that continue to hinder the effective implementation of the Mining Law, whether from legal, institutional, or central–regional coordination perspectives. Third, it evaluates the relevance of taxation instruments and fiscal mechanisms applied in the mining sector, particularly in relation to optimizing state revenue and ensuring sustainable resource management. Based on this scope, the resulting research questions guiding this study are: (1) How is Law Number 4 of 2009 implemented within the governance framework of the mineral and coal mining sector? (2) What challenges and obstacles arise in the implementation of this regulation? and (3) To what extent do the applied taxation instruments support the effectiveness and sustainability of the mining sector?

This study aims to provide conceptual clarity and a comprehensive mapping of the relationship between regulation, implementation practices, and taxation mechanisms in the mineral and coal sector. Furthermore, it intends to identify legal and fiscal gaps that continue to weaken sectoral governance and formulate evidence-based recommendations to strengthen the regulatory framework and enhance the fiscal contribution of mining. Academically, this research offers novelty through an analytical framework that more coherently and integratively links mining law with fiscal policy—an approach that has rarely been highlighted in previous studies, which tend to be sectoral or descriptive. Practically, this study provides relevant insights for policymakers, local governments, and industry stakeholders in creating more effective, transparent, and sustainable mining governance in Indonesia.

RESEARCH METHOD

This study employed a qualitative literature review approach with an analytical and interpretive orientation. The primary objective of this method is to systematically

[8] N. Listiyani, 'Strengthening Reclamation Obligation through Mining Law Reform in Indonesia', *Resources* 12, no. 5 (2023), https://doi.org/10.3390/resources12050056.

identify, evaluate, and synthesize existing academic works, official reports, and legal documents that discuss the implementation of Law Number 4 of 2009 concerning Mineral and Coal Mining and its taxation relevance. Previous studies have emphasized the importance of examining the intersection between mining regulation and fiscal policy to understand broader governance implications.[9] The researcher carefully selected and reviewed scholarly articles, government publications, and regulatory frameworks issued by relevant authorities to ensure that the sources used were both credible and up-to-date.

The data collection process involved a structured literature mapping technique, beginning with the identification of key themes and research gaps within previous studies. This process aligns with contemporary approaches in legal and policy research that prioritize the synthesis of multidisciplinary perspectives to reveal patterns of regulatory effectiveness.[10] Using a combination of academic databases and official government portals, the researcher gathered secondary data that reflects the conceptual, legal, and fiscal dimensions of mining law implementation in Indonesia. The selection of materials followed inclusion criteria focusing on relevance, methodological rigor, and contribution to understanding the relationship between mining regulation and taxation policy. Similar methodological frameworks have been applied in several recent studies on sectoral regulation, governance, and fiscal compliance.[11]

Furthermore, the analysis was conducted through a qualitative content analysis to interpret the main ideas and theoretical perspectives emerging from the selected literature. This analytical strategy enables researchers to integrate normative legal interpretation with socio-economic policy analysis, thereby strengthening the validity of findings in legal studies.[12] This process included categorizing findings into thematic clusters, such as legal implementation challenges, fiscal implications, and policy coherence to ensure a comprehensive synthesis of knowledge. Through this method, the study aims to produce a critical and integrative understanding of how the implementation of Law Number 4 of 2009 aligns with Indonesia's broader taxation and

[9] Rafiq Azzam Al Afif et al., 'Ruang Lingkup Baru Studi Ekonomi Pembangunan Islam Di Indonesia: Pendekatan Bibliometrik Dan Systematic Literature Review', *Jurnal Ilmiah Ekonomi Islam* 10, no. 2 (July 2024): 2, https://doi.org/10.29040/jiei.v10i2.14272.
[10] Darlin Rizki, Frina Oktalita, and Ali Sodiqin, 'Maqasid Sharia Perspective in Changes the Marriage Age Limits for Women According to Law Number 16 of 2019', *Al-Istinbath: Jurnal Hukum Islam* 7, no. 2 (2022), https://doi.org/10.29240/jhi.v7i2.4016.
[11] Frina Oktalita & Darlin Rizki, 'Analysis of MUI Fatwa Number 17 of 2020 Regarding Kaifiat Prayer Guidelines for Health Workers Who Wear Personal Protection Equipment (PPE) When Treating and Handling Covid-19 Patients', *Al-Istinbath: Jurnal Hukum Islam* 6, no. 2 (2021): 247–70.
[12] Ronny Hanitijo Soemitro, *Metode Penelitian Hukum Dan Jurimetri* (Jakarta: Ghalia Indonesia, 1990).

fiscal policy framework, providing an analytical foundation that complements prior research on law enforcement, fiscal accountability, and sectoral policy integration.

RESULTS AND DISCUSSION

1. Analysis of the Implementation of Law No. 4 of 2009

The implementation of Law No. 4 of 2009 concerning Mineral and Coal Mining (Minerba Law) introduced a fundamental transformation in Indonesia's mining governance landscape. The shift from the Contract of Work regime to a licensing-based system, particularly through the introduction of the Special Mining Business License (IUPK), altered the relationship between the state and mining companies, as seen in the renegotiation with PT Freeport Indonesia, where the government emphasized equal legal standing while maintaining the principle of *pacta sunt servanda* to ensure contract amendments aligned with national interests and sustainability goals.[13] This transformation demonstrates the state's attempt to strengthen legal certainty and assert sovereign authority over mineral and coal resources.[14]

At the normative level, the Minerba Law positions mineral and coal management as an instrument to promote public prosperity and sustainable development. Decentralization principles grant regional governments a more significant role in managing mining activities. Yet, field implementation shows substantial discrepancies: several regions face regulatory disharmony, spatial planning inconsistencies, and mismatches between central policy designs and local technical realities.[15] These challenges reveal gaps between the governance principles mandated by the law and the institutional capacities required for effective implementation.

Several critical issues arise from implementing the Minerba Law. The determination of community mining areas (WPR), for instance, has produced conflicts due to strict criteria requiring a minimum resource lifespan and limiting locations to secondary deposits in river areas. This removes the possibility of WPR in coastal regions and generates unequal access for local communities while increasing environmental pressure on river ecosystems.[16] Likewise, the limitation of production operation licenses (IUP) to

[13] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara* (Kementerian Hukum dan HAM RI, 2020).
[14] A. Pranata, 'Strategic Mineral Policies for Indonesia: Enhancing Global Competitiveness and Environmental Performance', *Renewable Energy*, ahead of print, 2025, https://doi.org/10.1016/j.renene.2025.117059.
[15] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[16] S. Musa, *Rezim Hukum Pertambangan Di Indonesia: Implikasi Sosial Dan Ekonomi* (Prenada Media, 2022).

specific legal entities including cooperatives and regional-owned enterprises has reduced legal certainty for business actors transitioning from the former Contract of Work or PKP2B schemes. Large-scale investors, in particular, view this shift as diminishing long-term investment guarantees, although medium- and small-scale investors, especially from China and India—still consider the licensing regime attractive.[17]

The law also introduces new mechanisms relating to spatial planning, WIUP auction procedures, and the adjustment of mining areas. Concerns over transparency and accessibility dominate the discussion, especially among local business actors. The transition from agreements to licenses and the reinterpretation of territorial boundaries have created uncertainty regarding investment security and the continuity of ongoing mining operations.[18] These shifts signal challenges in maintaining consistency, transparency, and predictability in governance.

From a law enforcement perspective, although the Minerba Law contains strict criminal provisions—such as imprisonment and fines for unlicensed mining activities—implementation remains constrained by ambiguities in defining corporate criminal subjects and the absence of specific sanctions for companies violating reclamation and post-mining obligations. As a result, sentencing inconsistencies persist, allowing multiple interpretations at the judicial level and weakening the overall enforcement framework.[19]

In terms of fiscal governance, the law mandates significant reforms, including compulsory divestment after five years of production and restrictions on raw mineral exports to encourage domestic processing. These measures aim to promote national industrialization and increase the sector's contribution to public welfare.[20] Empirical evaluations show mixed outcomes: while regulatory compliance has improved, several companies face reductions in their licensed areas and must adjust their operational models to align with the new system.[21] The National Legal Development Agency (BPHN) highlights the need for periodic regulatory reviews to ensure effectiveness, utility, and coherence with Pancasila values, including better area mapping, stronger environmental monitoring, and enhanced transparency in licensing and revenue management.[22] Regional-level practice continues to show administrative and technical barriers in

[17] Ahmad Redi, 'Mineral and Coal Mining Regulatory Reform in Indonesia', *Journal of Law and Sustainable Development* 6, no. 2 (2025), https://doi.org/10.15294/jllr.v6i2.19040.
[18] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[19] Redi, 'Mineral and Coal Mining Regulatory Reform in Indonesia'.
[20] Bachrawi Sanusi, *Potensi Ekonomi Migas Indonesia* (Rineka Cipta, 2004).
[21] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[22] D. Yulian, *Perpajakan Pertambangan Minerba Indonesia* (Mitra Wacana Media, 2022).

adapting to these reforms, particularly in WIUP auctions, reclamation reporting, and integrating national and local mining databases.

Overall, the implementation of Law No. 4 of 2009 demonstrates partial alignment with the governance principles intended by the legislation. The transition to a licensing-based system reinforces state authority but also creates transitional uncertainties that limit legal certainty for business actors. Institutional coordination remains weak, particularly regarding regulatory harmonization and spatial planning, which hinders the effectiveness of regional mining governance.

Community access to mining areas, intended to promote equity, is compromised by restrictive WPR criteria, while transparency in WIUP auctions remains a persistent challenge. Law enforcement provisions, though normatively strict, are weakened by gaps in corporate liability and inconsistent sentencing practices. Fiscal measures such as mandatory divestment and export controls show progress toward national industrialization but present operational pressures on companies navigating regulatory transitions.

Thus, while the Minerba Law embodies strong governance ideals, its practical implementation reflects structural, institutional, and regulatory constraints that limit the full realization of its objectives. Continued evaluation, regulatory refinement, and capacity strengthening—at both central and regional levels—remain essential to aligning the implementation of the law with its intended governance framework and supporting sustainable national welfare.

Table 1. Alignment Between Governance Principles and Implementation Outcomes

No.	Governance Principle Mandated by the Law	Normative Expectation According to UU 4/2009	Implementation Findings (from original text)	Level of Alignment
1.	Legal Certainty & State Authority	Clear legal framework; transition from contracts to licenses; state control aligned with national interest.	Shift to IUPK, renegotiation with Freeport; transitional uncertainty for former KK/PKP2B companies; reduced investment certainty for large firms (BPHN 2020a; Pranata 2025; Redi 2025).	Partially Aligned, state authority strengthened, but business certainty weakened.

2.	Institutional Coordination & Policy Harmony	Synergy between central and regional governments; harmonized technical rules; coherent spatial planning.	Disharmony in regulations; mismatches in spatial planning; regional implementation obstacles; WIUP auction inconsistencies (BPHN 2020a).	Weakly Aligned, coordination issues persist.
3.	Equitable Access & Community Rights	Fair access for community mining groups (WPR) across regions.	Strict WPR criteria exclude coastal areas; environmental pressure on rivers; unequal regional access (Musa 2022).	Weakly Aligned, normative inclusiveness not reflected in practice.
4.	Transparency & Predictability in Licensing	Transparent WIUP auctions; reliable territorial designations; clarity for investors.	Concerns over transparency; local actors face access barriers; transitional contradictions between old agreements and new rules (BPHN 2020a).	Partially Aligned, transparency goals unmet.
5.	Accountability & Law Enforcement	Strong and consistent enforcement; clear criminal sanctions including for corporations.	Strict sanctions exist, but unclear corporate liability, no specific penalties for reclamation violations, sentencing disparities (Redi 2025).	Weakly Aligned, enforcement framework incomplete.
6.	Fiscal Effectiveness & Industrial Value-Addition	Increased national revenue; domestic mineral processing; investment stability.	Mandatory divestment and export bans boost value-add goals; but smaller WIUP areas and operational adjustments burden	Partially Aligned, goals achieved unevenly.

	companies (Sanusi 2004; BPHN 2020a).

Sourch: Data Proccess (2025)

2. Challenges and Problems of Implementation

The implementation of Law No. 4 of 2009 continues to face persistent structural, regulatory, and institutional challenges that hinder its effectiveness. A fundamental issue concerns the frequent regulatory changes that are yet to be cohesively integrated, thereby generating legal uncertainty for both business actors and investors. [23] Within the framework of *regulatory governance*, these inconsistencies reveal weaknesses in rule-making coherence and undermine the predictability required for long-term investments in the mineral and coal sector. Regulatory instability complicates the downstreaming agenda and disrupts licensing and supervisory mechanisms that differ between the central and regional governments, creating fragmented governance architectures that fail to adequately coordinate mandates across institutions.

Overlapping licenses represent another acute problem, where mining areas are administratively granted to multiple business actors, resulting in conflicts over territorial rights and operational zones between old and newly issued IUP holders.[24] In the logic of *responsive law*, such conflicts persist because legal mechanisms intended to resolve disputes, such as the revocation of problematic IUPs, lack clear criteria and timelines, thereby preventing the law from functioning as a problem-solving instrument responsive to societal and sectoral needs. Meanwhile, the obligation to fulfil Domestic Market Obligation (DMO) requirements reflects a broader tension between public interest and corporate goals. In practice, business actors often face significant economic pressure when domestic prices fall far below international market prices, yet they must satisfy domestic quotas before exporting.[25] The coal DMO case illustrates how policy incoherence arises when fiscal, energy security, and industrial policies are not harmonized, revealing a regulatory system that struggles to balance national interests with market realities.

Environmental audit requirements for license extensions further amplify cost burdens, particularly for small and medium-sized enterprises lacking adequate

[23] H. Rakhmat, *Perbandingan Sistem Hukum Pertambangan Indonesia Dan Negara Lain* (Penerbit Andi, 2022).
[24] Bambang Yunianto, Rochman Saefudin, and Ijang Suherman, 'Pengertian Mineral Dan Batubara Serta Analisis Regulasi Minerba Terkini' (Universitas Hasanuddin, 2020).
[25] M. Arifin, *Penegakan Hukum Pertambangan Di Indonesia* (Sinar Grafika, 2023).

compliance systems.[26] This situation often triggers violations such as insufficient reclamation or abandoned post-mining areas, which contribute to environmental degradation. The restrictive criteria for establishing community mining areas (WPR), including minimum mine lifespan and location requirements in riverine secondary mineral deposits have limited community access and unintentionally encouraged unlicensed mining (PETI).[27] From a *regulatory governance* perspective, these technical requirements demonstrate a top-down regulatory model that insufficiently accommodates local socio-economic realities, thereby reducing the law's responsiveness to affected communities.

The auction mechanism for WIUP has also been criticized for its lack of transparency and accessibility, particularly for local business actors with limited capital.[28] The centralization of authority after the legal revision—intended to strengthen state control—has paradoxically weakened community oversight and reduced the supervisory role of regional agencies. Supervision conducted predominantly from the central level tends to remain administrative, while field-level monitoring is insufficient. [29] In the context of *responsive law*, such hyper-centralized supervision prevents regulatory institutions from adapting to complex and varied local conditions, allowing enforcement disparities to persist. Business actors who violate environmental or governance rules often avoid strict sanctions, while selective revocation of problematic IUPs continues to undermine legal credibility.[30]

Public participation in the legislative process remains limited, reinforcing perceptions that mining governance serves elite interests rather than societal welfare. The closed formation of regulations reduces democratic accountability and contradicts *responsive law* principles that require inclusive participation in rule-making. Industry challenges with the raw mineral export ban further illustrate the lack of adaptive capacity among regulatory institutions; many companies were unprepared to invest in processing and refining facilities, leading to production declines following the implementation of the

[26] B. Prasetyo, *Pajak Pertambangan: Konsep, Peraturan, Dan Prakteknya Di Indonesia* (Kencana, 2021).
[27] E. Bakung, 'Mining Regulatory: Enforcing the New Government Regulation Against Corporate Resistance', *Journal of Governance and Regulation* 14, no. 1 (2020), https://doi.org/10.22495/jgrv14i1art2.
[28] Bill Sullivan, ed., *Mining Law & Regulatory Practice in Indonesia* (John Wiley & Sons Singapore Pte. Ltd., 2013).
[29] PwC Indonesia, *Mining in Indonesia: Investment and Regulatory Guide 2025* (PricewaterhouseCoopers Indonesia, 2025).
[30] H. Tegnan et al., 'Mining Corruption and Environmental Degradation in Indonesia: Critical Legal Issues', *BESTUUR* 9, no. 2 (2021), https://doi.org/10.20961/bestuur.v9i2.55219.

policy.[31] Regional governments continue to struggle with data integration and technical administration, resulting in fragmented coordination and suboptimal governance of state revenues.[32]

Furthermore, there remains a persistent gap between state revenue generation and the improvement of local community welfare. Corporate contributions often materialize only through CSR programs that are temporary, unsustainable, and insufficient to stimulate local economic development.[33] The mandatory divestment of shares to the government frequently triggers debates related to its mechanisms, required percentages, and transparency, leading to contestation among central authorities, regional governments, and business actors. The case of Freeport exemplifies these challenges: prolonged renegotiations over divestment, shifts from Contract of Work to IUPK, and tensions between central and regional interests reveal *institutional asymmetry* and illustrate how conflicting governance mandates can impede effective regulatory implementation. Environmental cases that reach the courts often result in light penalties or acquittals due to weak evidentiary systems and limited expert support.[34]

Overall, the challenges that persist in the implementation of Law No. 4 of 2009 stem from structural weaknesses in regulatory governance, insufficiently responsive legal mechanisms, fragmented institutional coordination, and the absence of a coherent balance between national interests, corporate obligations, and regional aspirations. Without coherent regulation, transparent supervision, meaningful public participation, and strong synergy between central and regional governments, ongoing problems such as inequality, environmental degradation, and weak governance will continue to hinder the realization of an effective, sustainable, and equitable mining sector in Indonesia.

3. Tax Relevance and Mechanism in the Mining Sector

Taxes play a highly significant role in the mining sector in Indonesia as both a regulatory instrument and a primary source of state revenue. The contribution of the mining sector to national tax revenues, although fluctuating, still occupies an important position, namely around 5.8% in 2024, and in several previous periods had even reached more than 10% of total national tax revenues. The relevance of taxes in the mining sector

[31] Nina Indriati Lestari, *Mineral Governance, Conflicts, and Rights: Case Studies on the Informal Mining of Gold, Tin, and Coal in Indonesia (PhD Thesis)* (ANU E Press, 2011).
[32] Redi, 'Mineral and Coal Mining Regulatory Reform in Indonesia'.
[33] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[34] Risenly Faturahman Tapada, J. Ronald Mawuntu, and Maarthen Y. Tampanguma, 'Akibat Hukum Penerapan Undang-Undang Nomor 3 Tahun 2020 Tentang Perubahan Atas Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara Terhadap Peningkatan Nilai Tambah Pertambangan', *Jurnal Lex Privatum* 19, no. 1 (2021).

is further amplified by the non-renewable nature of its resources and their very high economic value for the national economy.[35]

Amid global dynamics affecting commodity prices, taxation remains an instrument to control, regulate, and ensure equitable distribution of benefits. Its collection mechanism is strictly regulated through laws and their derivatives, which, since the major revision in 2008, have integrated various schemes for mineral and coal mining as well as oil and gas. The state has adopted a multi-instrument system, ranging from Corporate Income Tax, Value-Added Tax (VAT), Land and Building Tax (L&B Tax), Income Tax Articles 21/23/26, to non-tax state revenues (PNBP).[36]

The government has enacted the latest regulations, such as Government Regulation No. 37 of 2018 and Government Regulation No. 15 of 2022, which specifically regulate taxation and non-tax state revenue (PNBP) in the mineral and coal mining sector. In practice, the corporate income tax for mining companies is currently set at 22%, and its application is adjusted to the business license status, such as the Mining Business License (IUP), the Special Mining Business License (IUPK), or the transition from the Contract of Work/PKP2B scheme to a new license. This scheme provides legal certainty as well as flexibility in adapting to business dynamics.[37]

In addition to income tax, there is also a Value-Added Tax (VAT) obligation on the delivery of taxable goods and services in this sector. The VAT imposed on mining production is also intended to equalize the tax burden across the entire economic chain and reduce the potential for tax avoidance. The mining sector is also subject to Land and Building Tax (L&B Tax), which is applied to land/buildings within mining areas, both onshore and offshore. The specific imposition and procedures are regulated through the Directorate General of Taxes regulations to ensure clarity of the database and legal certainty for taxpayers.[38]

In the tax payment mechanism, mining companies are required to register (Taxpayer Identification Number/NPWP), calculate, pay, and report taxes through the Annual Tax Return (SPT). Business activities, both during the pre-operational and production stages,

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[35] R. Sari and Y. Paulus, 'Aligning Mineral and Coal Mining Regulations With Constitutional Mandate', *Journal of Indonesian Sustainable Environmental Management* 3, no. 1 (2022), https://doi.org/10.31943/jisem.v3i1.1509.

[36] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Laporan Akhir Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.

[37] Dewan Perwakilan Rakyat RI, *Analisis Dan Evaluasi Implementasi UU No. 4 Tahun 2009 Tentang Pertambangan Minerba Dan Relevansi Pajak Minerba*, 2020.

[38] Pusat Pemantauan Pelaksanaan Undang-Undang – DPR RI, *Analisis Dan Evaluasi Undang-Undang Nomor 3 Tahun 2020 Tentang Perubahan Atas Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*, 2020.

are subject to different types of taxes: starting from Income Tax Article 21 if employees are already employed, Income Tax Article 23/26 for services, as well as final income tax and VAT when production or commercial transactions have commenced.[39]

Non-tax state revenue (PNBP) from mining is regulated using a formula that takes into account production output, selling price, and revenue sharing between the central and regional governments. For example, for coal, PNBP is calculated based on a certain percentage of the selling price per ton, which is further divided between the central and regional governments. An additional formula for net profit after deducting corporate income tax is also applied, making the financial contribution of companies to the state more transparent and measurable.[40]

The harmonization of tax mechanisms continues to be pursued, particularly since the transition from the Contract of Work system to the Mining Business License (IUP)/the Special Mining Business License (IUPK) licensing system. Remaining old contracts still follow the tax regime stipulated in their agreements until expiration, while new licenses follow the latest laws and regulations. This is important to maintain legal certainty while at the same time encouraging investment in the strategic sector.[41]

The phenomena of tax avoidance and transparency also remain a challenge. Only around 30% of large companies in this sector regularly report their tax aspects transparently, indicating the need to strengthen supervision and implement the principles of Environmental, Social, and Governance (ESG) in the tax governance of mining corporations. Another key driving factor is the fluctuation of global commodity prices. Price declines often cause tax payments and non-tax state revenues (PNBP) from the mining sector to drop sharply, with reductions reaching up to -50% in 2023. Tax restitution also increases when the industry experiences a slowdown, for example, due to price declines or changes in export policies.[42]

The relevance of taxation in the mining sector is also directly related to the Revenue Sharing Fund (*Dana Bagi Hasil*; DBH) mechanism for producing regional governments. DBH provides fiscal stimulus to regions that actively preserve the environment and

[39] Anggraini Dewi, 'Analisis Undang-Undang No.3 Tahun 2020 Yang Berpotensi Menghilangkan Kewenangan Pemerintah Daerah Dalam Bidang Pertambangan', *Jurnal Hukum Lingkungan Dan Good Governance*, 2021.
[40] Wulan, 'The State's Right to Control and Local Government Authority in the Mining Sector: A Legal-Policy Research'.
[41] Astomo, 'The Problems in Mineral and Coal Mining Regulations Perspectives Political Law and Responsive Law'.
[42] Sudradjat, *Teori Dan Praktik Pertambangan Indonesia Menurut Hukum*.

promote good mining governance. Nevertheless, the effectiveness of DBH is often constrained by records that are not yet fully integrated with the central government .[43]

Other tax obligations include the payment of export duties for raw or semi-processed commodities, the imposition of final taxes on certain transactions, and the obligation to report the use of goods/services, thereby ensuring that supervision in every mining business activity continues to operate. The government also encourages the strengthening of compliance through outreach and routine inspections, including cross-authority supervision between the Ministry of Finance and the Ministry of Energy and Mineral Resources.[44]

The mining sector is vulnerable to changes in tax regulations, both due to the need to adapt to global trends and the need to accelerate domestic downstreaming. The tax mechanism is designed to be adaptive, for example, by imposing additional taxes if exports are prohibited and companies are required to add domestic processing business lines. This policy is directed toward creating added value from the mining sector, rather than merely exploiting raw materials.[45]

At the implementation level, mining companies are required to comply with all applicable types of taxes: corporate income tax, VAT, L&B Tax, final taxes, as well as non-tax state revenues (PNBP) and other levies according to the license. Audit processes and routine inspections serve as instruments for validating compliance and fiscal fairness, while also functioning as a means of environmental control and the implementation of reclamation/post-mining activities, which also have fiscal implications fiscal [46]. Taxes are ultimately not only an instrument of state revenue but also a tool of control, equity, and protection of national interests in the extractive sector. Their effectiveness greatly depends on the harmonization of policies between the central and regional governments, taxpayer compliance, and the firmness of government supervision in implementing tax regulations in the mining sector.

4. Tax Relevance and Mechanism in the Mining Sector (Revised Version)

Taxes hold a strategically central role in Indonesia's mining sector, functioning not only as a primary source of national revenue but also as a regulatory instrument shaping equity, sustainability, and long-term regional development. Mining contributes approximately 5.8% of national tax revenues in 2024 and, in earlier periods, exceeded

[43] Wijaya, *Tata Kelola Pertambangan: Antara Regulasi Dan Kepentingan Negara*.
[44] Listiyani, 'Strengthening Reclamation Obligation through Mining Law Reform in Indonesia'.
[45] Pranata, 'Strategic Mineral Policies for Indonesia: Enhancing Global Competitiveness and Environmental Performance'.
[46] Redi, 'Mineral and Coal Mining Regulatory Reform in Indonesia'.

10%, reflecting the fiscal significance of a sector grounded in non-renewable resources whose extraction must be managed prudently for intergenerational justice.[47] Within the framework of *fiscal decentralization*, these revenues—whether through tax or non-tax channels—form an essential component of how the state redistributes wealth, particularly through the Revenue Sharing Fund (Dana Bagi Hasil; DBH), which aims to strengthen producing regions and correct vertical as well as horizontal fiscal imbalances. However, the effectiveness of DBH is still constrained by incomplete regional–central data integration, limiting its capacity to drive equitable and sustainable local development.[48]

Following global commodity volatility, taxation operates as a stabilizing and controlling instrument. The Indonesian system integrates multiple tax instruments—Corporate Income Tax, Value-Added Tax (VAT), Land and Building Tax (L&B Tax), Income Tax Articles 21/23/26, and non-tax revenues (PNBP)—designed to balance corporate interests with national development priorities.[49]

The issuance of Government Regulation No. 37 of 2018 and Government Regulation No. 15 of 2022 further strengthens the legal framework governing taxation and PNBP in the mineral and coal sector, with corporate income tax set at 22% and adjusted according to licensing schemes such as IUP, IUPK, or the transition from Contract of Work/PKP2B.[50] From a conceptual perspective, Indonesia's regulatory design aligns with principles of *resource rent taxation*, which emphasize capturing a fair portion of economic rent derived from natural resources for public welfare. Comparatively, countries such as Australia implement the Petroleum Resource Rent Tax (PRRT), a profit-based additional tax ensuring that windfall gains are shared with the state, while Norway applies a dual petroleum tax system in which high marginal tax rates, combined with rigorous transparency and a sovereign wealth fund, ensure intergenerational equity. These models underscore how taxation in natural resources can enhance both sustainability and long-term public wealth, offering a benchmark for Indonesia's ongoing reforms.

VAT obligations on goods and services within the mining chain aim to standardize the tax burden and reduce avoidance practices. L&B Tax ensures that the fiscal responsibility of mining extends to land and property use, both onshore and offshore,

[47] Sari and Paulus, 'Aligning Mineral and Coal Mining Regulations With Constitutional Mandate'.
[48] Wijaya, *Tata Kelola Pertambangan: Antara Regulasi Dan Kepentingan Negara*.
[49] Pusat Analisis dan Evaluasi Hukum Nasional BPHN, *Analisis Dan Evaluasi Hukum Terkait Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[50] Dewan Perwakilan Rakyat RI, *Analisis Dan Evaluasi Implementasi UU No. 4 Tahun 2009 Tentang Pertambangan Minerba Dan Relevansi Pajak Minerba*.

supported by the Directorate General of Taxes to maintain database accuracy and legal certainty.[51] At the corporate level, companies must register (NPWP), calculate, pay, and report taxes through Annual Tax Returns (SPT), with different tax treatments applied across pre-operational and production stages, including Income Tax Articles 21/23/26, final taxes, and VAT.[52]

PNBP, which incorporates production volume, market price, and central–regional revenue-sharing formulas, reflects Indonesia's attempt to align taxation with the value of extracted resources and ensure transparency in the state's revenue streams.(Wulan, 2021) The transition from Contract of Work to IUP/IUPK represents a broader shift toward harmonizing the fiscal regime, maintaining legal certainty while encouraging investment in downstreaming, an agenda central to contemporary mining governance.[53]

Nonetheless, challenges persist. Only about 30% of major mining companies consistently report their tax obligations transparently, indicating gaps in supervision and the need to institutionalize ESG principles within tax governance.(Sudradjat, 2010) Commodity price fluctuations also heavily influence tax receipts and PNBP; for instance, price declines in 2023 led to revenue reductions of up to –50%, while tax restitution rates increased during periods of industrial slowdown. Such volatility highlights the relevance of *environmental taxation theory*, which argues for designing taxes not merely as revenue tools but as mechanisms that internalize environmental and social costs—such as through carbon pricing, reclamation bonds, or Pigouvian levies.

The link between taxation, sustainability, and regional development becomes particularly evident in DBH allocations. Ideally, DBH should incentivize regions to uphold environmental standards and ensure community welfare, consistent with fiscal decentralization theory that empowers local governments to respond to local needs more effectively. However, poor data integration and uneven administrative capacity limit DBH's transformative potential on the ground, leaving many producing regions environmentally burdened yet fiscally constrained.[54]

Additional tax instruments, export duties, final taxes on specific transactions, and reporting obligations for goods and services reinforce supervisory functions across

[51] Pusat Pemantauan Pelaksanaan Undang-Undang – DPR RI, *Analisis Dan Evaluasi Undang-Undang Nomor 3 Tahun 2020 Tentang Perubahan Atas Undang-Undang Nomor 4 Tahun 2009 Tentang Pertambangan Mineral Dan Batubara*.
[52] Anggraini Dewi, 'Analisis Undang-Undang No.3 Tahun 2020 Yang Berpotensi Menghilangkan Kewenangan Pemerintah Daerah Dalam Bidang Pertambangan'.
[53] Astomo, 'The Problems in Mineral and Coal Mining Regulations Perspectives Political Law and Responsive Law'.
[54] Wijaya, *Tata Kelola Pertambangan: Antara Regulasi Dan Kepentingan Negara*.

mining operations. The government continues to strengthen tax compliance through inspections and inter-agency coordination between the Ministry of Finance and the Ministry of Energy and Mineral Resources.[55] Adaptation remains crucial as Indonesia navigates global trends and domestic downstreaming policies, including the imposition of additional taxes when export bans require companies to expand their domestic processing activities, reinforcing added value policies central to national resource strategy.[56]

At the implementation level, audit mechanisms not only validate fiscal compliance but also function as tools for monitoring environmental responsibilities and post-mining reclamation activities, which themselves have fiscal consequences.[57] Ultimately, taxes in the mining sector serve a dual purpose: they sustain state revenue while also functioning as governance instruments that enable equity, environmental protection, and long-term sustainability. Their effectiveness depends on coherent policy harmonization, strong central–regional coordination, transparent corporate reporting, and the consistent enforcement necessary to ensure that extractive activities contribute meaningfully to national and local development.

CONCLUSION

This study demonstrates that the implementation of Law Number 4 of 2009 has reshaped Indonesia's mining governance by strengthening state authority, improving licensing coherence through the transition to the IUP/IUPK system, and encouraging greater accountability in the management of non-renewable resources. These findings contribute conceptually to the discourse on natural resource governance by reaffirming the importance of legal certainty, hierarchical regulatory alignment, and the role of the state as the primary steward of extractive industries within a decentralized governance framework. From a fiscal perspective, the analysis underscores that taxation is not merely a revenue-raising tool but a central mechanism for ensuring equity, sustainability, and fair distribution of resource rents. The integration of multiple fiscal instruments, corporate income tax, VAT, L&B Tax, PNBP, and the Revenue Sharing Fund (DBH), illustrates how Indonesia's fiscal design aligns with theories of fiscal decentralization and environmental taxation. The study also highlights persistent challenges, including tax

[55] Listiyani, 'Strengthening Reclamation Obligation through Mining Law Reform in Indonesia'.
[56] Apriliyanti and Rizki, 'Renewable Energy Policies'; Pranata, 'Strategic Mineral Policies for Indonesia: Enhancing Global Competitiveness and Environmental Performance'.
[57] Redi, 'Mineral and Coal Mining Regulatory Reform in Indonesia'.

avoidance, limited transparency, and uneven regional reporting systems, which weaken the sector's overall fiscal governance.

Based on these insights, the study recommends several key policy actions: (1) strengthening regulatory harmonization between central and regional regulations to reduce legal overlap; (2) enhancing fiscal transparency through integrated reporting systems and mandatory disclosure standards for mining corporations; and (3) improving compliance monitoring through coordinated audits, cross-ministerial data integration, and ESG-based supervision frameworks. These steps are essential to reinforce both legal certainty and equitable fiscal distribution, particularly for mining-producing regions.

This study is limited by its reliance on secondary literature, which restricts empirical assessment of regional variability and company-level fiscal behavior. Future research should incorporate field data, comparative case studies, and cross-country analyses—such as benchmarking Indonesia's fiscal and regulatory frameworks against best practices in Australia, Canada, or Norway—to strengthen the empirical foundation and broaden the policy relevance of mining governance studies.

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