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Mining Taxation and Regional Justice in East Kalimantan: Assessing Fiscal Benefits for Communities in Resource-Producing Areas

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Abstract

East Kalimantan is one of Indonesia's major resource-producing regions, particularly in coal mining, yet resource extraction may generate uneven distributions of economic benefits and environmental costs. Taxation and revenue-sharing mechanisms are therefore central to determining whether resource-producing communities receive adequate compensation through public services and regional development. This article examines mining taxation in East Kalimantan from the perspective of fiscal and distributive justice. Using normative juridical and policy analysis, the study evaluates mining-related taxation, intergovernmental fiscal transfers, regional revenue, and community development obligations. The article argues that the justice of resource taxation cannot be assessed solely by national revenue generation. It must also consider whether producing regions receive sufficient fiscal resources to address infrastructure needs, environmental rehabilitation, and social impacts associated with extraction. The study proposes a resource fiscal justice framework based on transparent revenue distribution, environmental cost internalization, intergenerational equity, and measurable community benefits. Greater transparency regarding mining-related public revenues would enable citizens to evaluate whether resource wealth contributes proportionately to local welfare. The article concludes that Indonesia's mining tax governance should strengthen the fiscal relationship between resource extraction and community development in East Kalimantan.

[*Kalimantan Timur merupakan salah satu wilayah penghasil sumber daya utama di Indonesia, khususnya dalam sektor pertambangan batu bara; namun, kegiatan ekstraksi sumber daya dapat menimbulkan ketimpangan dalam distribusi manfaat ekonomi dan beban biaya lingkungan. Oleh karena itu, mekanisme perpajakan dan bagi hasil memegang peranan krusial dalam menentukan apakah masyarakat di wilayah penghasil sumber daya memperoleh kompensasi yang memadai melalui layanan publik dan pembangunan daerah. Artikel ini mengkaji perpajakan sektor pertambangan di Kalimantan Timur dari perspektif keadilan fiskal dan distributif. Dengan* *menggunakan metode yuridis normatif dan analisis kebijakan, studi ini mengevaluasi aspek perpajakan pertambangan, transfer fiskal antar-pemerintah, pendapatan daerah, serta kewajiban pengembangan masyarakat. Artikel ini berargumen bahwa keadilan dalam perpajakan sumber daya tidak dapat dinilai semata-mata berdasarkan perolehan pendapatan negara. Penilaian juga harus mempertimbangkan apakah wilayah penghasil mendapatkan sumber daya fiskal yang cukup untuk menangani kebutuhan infrastruktur, rehabilitasi lingkungan, dan dampak sosial yang timbul akibat kegiatan ekstraksi. Studi ini mengusulkan kerangka kerja keadilan fiskal sumber daya yang didasarkan pada transparansi distribusi pendapatan, internalisasi biaya lingkungan, keadilan antargenerasi, dan manfaat nyata bagi masyarakat. Transparansi yang lebih baik mengenai pendapatan publik dari sektor pertambangan akan memungkinkan masyarakat untuk menilai apakah kekayaan sumber daya tersebut berkontribusi secara proporsional terhadap kesejahteraan lokal. Artikel ini menyimpulkan bahwa tata kelola pajak pertambangan di Indonesia perlu memperkuat hubungan fiskal antara kegiatan ekstraksi sumber daya dan pengembangan masyarakat di Kalimantan Timur.*]

Keywords: Mining taxation, East Kalimantan, fiscal justice, natural resources, revenue sharing

Introduction

Natural resources occupy a constitutionally and economically significant position in Indonesia. Article 33 of the 1945 Constitution establishes that land, water, and natural resources contained therein are controlled by the state and should be utilized for the greatest prosperity of the people. This constitutional principle creates a normative connection between resource extraction and public welfare. Mining taxation and non-tax state revenues therefore cannot be understood simply as mechanisms for financing the national budget. They are also instruments through which the state converts non-renewable natural wealth into public benefits.

The issue becomes particularly important in East Kalimantan. The province has long been one of Indonesia's major coal-producing regions and has experienced extensive transformation associated with mining, logging, plantations, infrastructure development, and urbanization. The official *East Kalimantan Province in Figures 2025* confirms the province's continuing economic importance and provides extensive provincial and district-level economic, social, and governmental statistics (BPS-Statistics East Kalimantan 2025). Coal remains a central component of Indonesia's resource economy, and national coal production reached approximately 836 million tonnes in 2024 according to the Ministry of Energy and Mineral Resources (ESDM 2025).

The fiscal significance of mining is equally substantial. Indonesia's mining and mineral sector generated approximately IDR 140.5 trillion in non-tax state revenue in 2024, according to the Ministry of Energy and Mineral Resources (ESDM 2025). Direktorat Jenderal EBTKE The broader mineral and coal subsector generated approximately IDR 172.96 trillion in non-tax state revenue in 2023, substantially exceeding its target (ESDM 2024). Such figures demonstrate that mining is not merely a production sector; it is a significant component of Indonesia's fiscal capacity.

Yet fiscal contribution at the national level does not necessarily translate into fiscal justice at the local level. A resource-producing region may generate substantial national revenue while bearing environmental degradation, infrastructure costs, health risks, social conflict, land-use changes, and post-mining liabilities. This distinction between where revenue is collected and where costs are experienced is at the heart of resource fiscal justice.

The theoretical foundation of this argument can be traced to fiscal federalism. Musgrave (1959) distinguishes among allocation, distribution, and stabilization functions of public finance, while Oates (1972) emphasizes the allocation of fiscal responsibilities between levels of government. In natural-resource economies, however, the standard fiscal-federalism framework must be supplemented by considerations of environmental externalities and intergenerational equity. Natural resources are finite, and extraction today reduces the stock available to future generations. The fiscal system must therefore ensure that resource rents are transformed into durable forms of public capital rather than consumed entirely as short-term income.

The concept of resource curse provides an additional theoretical perspective. Sachs and Warner (2001) demonstrate a negative relationship between natural-resource dependence and economic growth in a range of countries, while subsequent research has emphasized the institutional conditions through which resource abundance can generate either development or economic and political vulnerabilities. Indonesia's experience does not fit a simple resource-curse model, but East Kalimantan demonstrates several characteristics associated with resource dependence: a high contribution of extractive activities to regional economic output, strong exposure to commodity cycles, environmental degradation, and uneven distribution of benefits.

The literature on East Kalimantan provides substantial evidence concerning these contradictions. Siburian (2012) argues that coal mining in East Kalimantan has generated substantial government revenue but has not necessarily translated into improved community welfare and has been accompanied by serious environmental damage and social conflict. Similarly, Susmiyati et al. (2022) describe East Kalimantan as a region experiencing multiple forms of ecological injustice in which the economic benefits of extractivism coexist with deforestation, shrinking agricultural land, flooding, health problems, and abandoned mine pits.

Recent research reinforces these concerns. Werner et al. (2023) identify widespread regulatory and environmental risks associated with coal-mining permits in Indonesia, including deforestation, overlapping concessions, inadequate reclamation, settlement conflicts, and fatalities. In East Kalimantan, these impacts are particularly significant because mining concessions overlap with agricultural areas, settlements, forests, plantations, and customary territories.

The problem is not limited to environmental degradation. Resource extraction also reshapes livelihood structures. Smajgl et al. and subsequent political-ecology research show that extractive industries can alter access to land and natural resources and redistribute opportunities unevenly among social groups. In East Kalimantan, Li (2014) and Hall et al. (2011) demonstrate how land acquisition and commercialization can produce differentiated outcomes among local communities. More specifically, Wijaya et al. (2022) show how successive waves of logging, plantation development, and coal mining have interacted to intensify social differentiation and livelihood insecurity in East Kalimantan.

The fiscal distribution literature also raises concerns. Yasa (2021) concludes that Indonesia's natural-resource revenue-sharing arrangements have not fully reflected proportionality and fairness from the perspective of regional autonomy. Alisjahbana's analysis of Indonesia's natural-resource revenue-sharing system similarly questions whether the distribution of resource revenue between producing regions and the central government is sufficiently fair and whether it contributes effectively to regional development. cambridge.org

Empirical studies on fiscal disparities further complicate the picture. Studies of Indonesia's decentralization have found that shared revenues can increase fiscal disparities because natural resources and tax bases are geographically concentrated (Firdaus et al. 2021). Mudayen and Maridjo (2018) likewise find that tax-sharing and natural-resource revenue-sharing funds can exacerbate interregional income disparities if the transfer architecture does not adequately compensate resource-poor regions. Thus, increasing the share of mining revenue allocated to producing regions may improve vertical fiscal equity while simultaneously creating horizontal inequality among regions.

This tension creates an important policy dilemma. Producing regions arguably deserve a larger share because they provide the natural resource and bear extraction-related costs. At the same time, resource-poor regions also require fiscal transfers because they cannot generate equivalent revenue from their own natural-resource bases. The appropriate fiscal system must therefore combine resource compensation with equalization.

Indonesia's legal framework has evolved considerably in response to this challenge. Law No. 4 of 2009 on Mineral and Coal Mining, subsequently amended by Law No. 3 of 2020 and further modified through later legislation, establishes the legal framework for mining governance, environmental obligations, community development, reclamation, and state control over mineral and coal resources. Government Regulation No. 15 of 2022 establishes specific taxation and non-tax revenue treatment for coal mining enterprises, including holders of IUP, IUPK, and legacy contract arrangements. In 2025, Government Regulation No. 18 of 2025 further amended the 2022 framework, demonstrating that mining fiscal governance continues to evolve in response to changes in commodity markets and regulatory policy.

The environmental side is also regulated. Government Regulation No. 78 of 2010 requires mining operators to undertake reclamation and post-mining activities and to provide financial guarantees for those obligations. IEA However, research has demonstrated significant weaknesses in the reclamation-bonding mechanism. Syarif et al. (2021) argue that regulatory ambiguity and weak enforcement have reduced the effectiveness of Indonesia's reclamation guarantees. This creates an important connection between taxation and environmental justice: fiscal revenues can be high while public authorities may still face substantial unfunded or underfunded environmental liabilities.

The introduction of Indonesia's new intergovernmental fiscal framework through Law No. 1 of 2022 on Financial Relations between the Central Government and Regional Governments provides an important opportunity to reassess this relationship. The law restructures fiscal transfers and revenue-sharing arrangements with the stated objective of improving fiscal equity, service quality, and regional development. Government Regulation No. 37 of 2023 subsequently provides the framework for managing transfers to regions.

Against this background, this article addresses three questions. First, how does Indonesia's current mining fiscal regime capture the economic value of coal extraction? Second, whether the distribution of mining-related fiscal benefits adequately compensates East Kalimantan for environmental and social costs associated with extraction? Third, what institutional reforms are necessary to strengthen the relationship between mining revenue and community welfare?

The article makes three contributions. First, it connects mining taxation with environmental and distributive justice rather than treating taxation as a purely revenue-oriented instrument. Second, it evaluates revenue sharing from the perspective of producing regions while recognizing the equalization function of national fiscal transfers. Third, it develops a Resource Fiscal Justice Framework that connects mining revenues to environmental rehabilitation, community development, fiscal transparency, and intergenerational welfare.

This study employs a normative juridical and policy-analysis approach. The normative juridical component examines laws and regulations governing mineral and coal mining, taxation, non-tax state revenue, environmental protection, reclamation, post-mining obligations, community development, and intergovernmental fiscal transfers. Key instruments include Law No. 3 of 2020 on Mineral and Coal Mining, Law No. 7 of 2021 on Harmonization of Tax Regulations, Law No. 1 of 2022 on Financial Relations between the Central Government and Regional Governments, Government Regulation No. 15 of 2022 on taxation and non-tax revenue in coal mining, Government Regulation No. 37 of 2023 on transfers to regions, and relevant environmental and reclamation regulations.

The policy analysis is supported by secondary data from Statistics Indonesia, the Ministry of Energy and Mineral Resources, the Ministry of Finance, and other official government sources. The study also reviews peer-reviewed academic literature concerning resource taxation, fiscal decentralization, environmental justice, coal mining, community welfare, land-use change, reclamation, and political ecology.

The analytical framework is constructed around five principles: (1) distributive justice, (2) environmental cost internalization, (3) fiscal equalization, (4) procedural transparency, and (5) intergenerational equity. Distributive justice concerns the allocation of resource-generated fiscal benefits between national and regional governments and between governments and communities. Environmental cost internalization concerns whether mining operators bear an appropriate share of environmental rehabilitation costs. Fiscal equalization recognizes that resource-producing regions should receive compensation without undermining national redistribution. Procedural transparency concerns the ability of citizens to observe and evaluate resource-related revenues and expenditures. Finally, intergenerational equity requires current resource revenues to be transformed into durable public assets and environmental restoration.

Mining Taxation and the Fiscal Value of Coal Extraction

Indonesia's mining fiscal system is composed of several instruments rather than a single mining tax. The principal instruments include corporate income taxation, land and building taxes, value-added taxation in relevant transactions, fixed fees, royalties, various non-tax state revenues, and other fiscal obligations associated with mining licenses and contracts.

Government Regulation No. 15 of 2022 is particularly important because it establishes specific taxation and non-tax revenue arrangements for coal mining enterprises. The regulation applies to holders of mining business licenses and certain contractual arrangements and specifies the treatment of income tax and non-tax revenues associated with coal mining. The 2025 amendment through Government Regulation No. 18 of 2025 further demonstrates the government's attempt to adjust the fiscal regime to changing coal-market conditions and mining governance.

The fiscal importance of these instruments can be seen from national PNBP performance. The Ministry of Energy and Mineral Resources reported mineral and coal PNBP of approximately IDR 172.96 trillion in 2023. In 2024, mineral and coal PNBP remained very substantial at approximately IDR 140.5 trillion. Direktorat Jenderal EBTKE The decline from 2023 is consistent with commodity-price movements, demonstrating that resource-dependent fiscal systems are exposed to international market volatility.

Coal has historically been the dominant contributor within the mineral and coal fiscal portfolio. In 2025, the Ministry of Energy and Mineral Resources reported that coal accounted for approximately 70 percent of mining-sector PNBP, highlighting the fiscal importance of coal extraction. This concentration means that fiscal justice in East Kalimantan is closely connected to the design of coal taxation and royalty mechanisms.

The economic significance of mining also extends beyond direct fiscal receipts. Mining creates employment, transportation demand, contracting opportunities, consumption, and investment. However, these benefits are not necessarily distributed uniformly. Large mining firms may capture substantial rents while local communities receive employment or CSR benefits that are relatively small compared with the overall economic value generated.

This distinction is crucial. A fiscal system should capture a reasonable portion of economic rent, not simply impose costs on production. Rent represents returns above the normal return necessary to attract capital and entrepreneurial activity. A well-designed mining fiscal system can capture a portion of these rents for public purposes while preserving incentives for productive investment. The challenge arises when fiscal extraction is too weak relative to environmental and social costs. In such circumstances, the state effectively subsidizes private extraction by allowing firms to externalize part of the costs to communities and future generations.

Conversely, excessively high fiscal burdens can reduce investment, employment, and local economic activity. Mining taxation must therefore balance revenue capture and competitiveness. The appropriate question is not whether mining should be taxed heavily, but whether the total fiscal burden corresponds to the economic rent and environmental risk associated with extraction.

The structure of Indonesia's royalty system has evolved in this direction. The Ministry of Energy and Mineral Resources has explained that changes under Government Regulation No. 26 of 2022 increased certain coal royalty rates, with rates varying according to coal characteristics and benchmark prices. Such differentiation is potentially important because the fiscal value of coal varies with market price and quality. However, fiscal justice requires a second step: connecting national revenue collection with regional fiscal capacity. A large national mining revenue figure does not establish that producing regions are adequately compensated. The relevant metric is not only how much mining revenue is collected, but also how much returns to producing areas and what public outcomes are generated from it.

Revenue Sharing, Fiscal Federalism, and East Kalimantan's Position

Natural-resource revenue sharing exists partly because resource extraction imposes geographically concentrated costs. If mining revenue were fully centralized, producing regions could experience a mismatch between local costs and local fiscal capacity.

Indonesia's decentralization reforms attempted to address this mismatch. Law No. 25 of 1999 and Law No. 33 of 2004 established important revenue-sharing arrangements for natural resources. These reforms transferred a greater share of resource-related revenues to producing regions. Subsequent legislation has continued to refine the system.

The literature shows that this reform has generated both benefits and problems. Yasa (2021) concludes that Indonesia's natural-resource revenue-sharing system has not fully reflected proportionality and justice from the perspective of regional autonomy. Alisjahbana similarly argues that the central question is whether the distribution of resource revenue provides producing regions with a fair share while maintaining national fiscal balance. cambridge.org

The problem becomes more complex because resource-producing regions are not necessarily poor regions. East Kalimantan, for example, has substantial natural-resource wealth. If it receives a very large revenue share, fiscal disparities between East Kalimantan and resource-poor provinces may increase.

Empirical evidence confirms that natural-resource revenue sharing can increase fiscal disparities. Firdaus et al. (2021) demonstrate that shared revenue is strongly associated with fiscal disparities among Indonesian districts because natural resources and tax bases are spatially concentrated. Mudayen and Maridjo (2018) similarly find that natural-resource revenue-sharing funds may exacerbate interregional income disparities.

This creates a fundamental tension between vertical justice and horizontal equalization. Vertical justice asks whether a producing region receives a fair share of the resources extracted from its territory. Horizontal equalization asks whether citizens living in resource-poor regions have comparable access to public services. A legitimate fiscal system needs both. East Kalimantan should not be treated merely as a source of national revenue, but neither should its resource wealth justify permanently superior fiscal capacity compared with resource-poor regions. This suggests that revenue sharing should operate through two interconnected channels: Compensatory transfers to producing and affected regions; and Equalization transfers to ensure minimum public-service standards across Indonesia.

The first addresses the costs of extraction. The second addresses national solidarity and equal citizenship. The new fiscal framework under Law No. 1 of 2022 is therefore potentially significant. Rather than viewing resource revenue sharing as an isolated entitlement of producing regions, it can be integrated with broader fiscal equalization. For East Kalimantan, the appropriate policy question is consequently not "How much of the mining revenue should East Kalimantan receive?" but rather: How much fiscal capacity does East Kalimantan require to compensate for extraction-related costs while maintaining an equitable national distribution of public resources? This is a more defensible conception of fiscal justice because it considers both compensation and equalization.

Environmental Externalities and the Fiscal Cost of Coal Mining

The most important weakness in a conventional mining-tax analysis is that it often treats environmental costs separately from fiscal revenues. Yet environmental degradation is itself a fiscal issue. Coal mining transforms landscapes, removes vegetation, alters hydrological systems, affects agricultural land, generates dust and pollution, and produces large post-mining liabilities. Where these impacts are not fully internalized by mining companies, government and communities effectively bear part of the cost.

Research in East Kalimantan provides strong evidence. Werner et al. (2023) identify extensive problems associated with coal-mining permits, including deforestation, concession overlaps, inadequate monitoring, insufficient reclamation, and safety risks. Muhdar, Nasir, and Nurdiana (2020) similarly show that communities in Mulawarman Village have experienced disproportionate environmental risks from coal mining. The study describes the loss of food self-sufficiency, dependence on government and mining companies for social welfare and clean water, and regulatory conditions that have disadvantaged local communities.

The existence of abandoned mine pits is particularly relevant. Bebbington et al. and related political-ecology research show that mine closure is not simply a technical stage of mining but a major governance issue. In East Kalimantan, large numbers of unreclaimed mine voids have remained after extraction, sometimes close to residential settlements. Wahana Lingkungan Hidup Indonesia and other civil-society organizations have documented the risks of abandoned pits, while Bebbington et al. (2020) analyze the political struggles surrounding reclamation and post-mining landscapes.

The problem demonstrates why environmental guarantees are essential. Government Regulation No. 78 of 2010 requires reclamation and post-mining obligations and financial guarantees from mining companies. IEA However, Syarif et al. (2021) argue that Indonesia's reclamation-bonding mechanism has suffered from regulatory ambiguity and weak enforcement.

From a tax-justice perspective, this means that mining taxation cannot be evaluated independently from environmental financial guarantees. Suppose a mining company pays substantial royalties but leaves behind environmental liabilities that must later be addressed using public funds. In such a case, the apparent fiscal contribution of the company overstates its net social contribution.

The relevant concept should therefore be net fiscal contribution: *Net Fiscal Contribution = Mining Taxes + Royalties + PNBP + Local Economic Benefits − Public Environmental and Social Costs.* This does not mean that every environmental impact can or should be monetized precisely. Rather, it provides a conceptual tool for assessing whether resource extraction generates a net public benefit. Environmental taxation theory supports this approach. Pigou (1920) argued that taxes can be used to internalize external costs, while later environmental-economics literature emphasizes that pollution and environmental degradation should be incorporated into economic decision-making. For mining, internalization can occur through several mechanisms:

1. higher royalties for environmentally risky extraction;
2. reclamation and post-mining guarantees;
3. environmental performance bonds;

4. penalties for environmental violations;
5. ecological fiscal transfers;
6. restoration funds; and
7. differentiated taxation according to environmental risk.

A risk-adjusted fiscal system would be more consistent with environmental justice than a uniform tax on coal production. Mining on degraded land with low ecological value is not equivalent to mining that destroys forests, affects watersheds, or occupies customary territories.

Global research also supports this distinction. Giljum et al. (2022) show that mining-related land-use change has become a significant driver of tropical deforestation globally, while Indonesia represents one of the countries where mining-related forest loss is particularly important. More recent global evidence confirms that coal mining has contributed substantially to deforestation, including through unrecorded mining activities. However, this article deliberately limits its empirical discussion to evidence available by the end of 2025. East Kalimantan's experience therefore demonstrates that the fiscal cost of mining extends beyond the annual budget. Environmental liabilities accumulate over time. If they are not adequately financed during the production phase, future governments and communities may inherit them.

Community Development, CSR, and the Distribution of Mining Benefits

The question of fiscal justice ultimately concerns people, not merely government accounts. Mining communities may receive benefits through employment, local procurement, infrastructure, CSR, community development programs, and public services financed by regional revenue. However, these mechanisms are not equivalent to one another.

CSR is generally a company-level obligation or voluntary corporate responsibility mechanism. Revenue sharing, by contrast, is a public-finance mechanism. The two should not be treated as substitutes. This distinction is important because CSR can be selective, project-based, and dependent on corporate priorities. Public revenue sharing, by contrast, should be governed by democratic budgeting and public accountability. Research from Berau District illustrates the potential contribution of mining-related CSR to education, health, socioeconomic development, and environmental programs (Mustari et al. 2023). Yet CSR alone cannot solve structural problems generated by resource extraction.

Recent research on East Kalimantan further suggests that mining benefits are unevenly distributed. Studies of coal-producing rural communities find that mining may generate employment and infrastructure but simultaneously cause land displacement, reduced agricultural productivity, water and air pollution, health risks, and increased livelihood vulnerability.

This leads to an important distinction between compensation and empowerment. Compensation provides resources after harm occurs. Empowerment increases the capacity of communities to participate in economic development and governance. Research from Berau District illustrates the potential contribution of mining-related CSR to education, health, socioeconomic development, and environmental programs (Mustari et al. 2023). Yet CSR alone cannot solve structural problems generated by resource extraction.

A just mining fiscal system should prioritize both. Community benefits could include:

1. improved drinking-water infrastructure;
2. rural roads and public transportation;
3. health facilities;
4. education and scholarships;
5. agricultural development;
6. alternative livelihoods;
7. community forest management;
8. vocational training;
9. small-business financing;
10. land and customary-rights documentation;
11. environmental monitoring; and
12. post-mining economic diversification.

The last element is particularly important because coal is a finite resource. A mining-dependent region should not simply use mining revenue to finance current consumption. It should transform a portion of resource rents into productive and sustainable assets. This is the core of the Hartwick (1977) rule in natural-resource economics: resource rents should be invested in reproducible capital so that welfare can be maintained when natural-resource stocks decline.

For East Kalimantan, this means that mining revenues should be used to develop sectors capable of sustaining employment after coal production declines. Potential areas include agriculture, agro-processing, tourism, renewable energy, logistics, manufacturing, environmental restoration, and digital services. Such diversification is not merely an economic strategy. It is a matter of intergenerational justice. If the current generation receives public services financed by coal revenues while future generations inherit degraded landscapes and an economy without alternative productive capacity, the fiscal system has failed the principle of intergenerational equity.

Transparency, Accountability, and a Resource Fiscal Justice Framework for East Kalimantan

Transparency is a fundamental institutional condition for achieving fiscal justice in resource-producing regions because the distribution of mining revenues cannot be evaluated adequately without reliable information concerning how much value is generated, how that value is collected by the state, how much is returned to producing regions, and what social and environmental outcomes are produced from the revenues. In the context of East Kalimantan, this issue is particularly important because the province has historically been highly dependent on coal extraction while simultaneously experiencing substantial environmental and social pressures associated with mining. Research by Siburian (2012) demonstrates that the expansion of coal mining in East Kalimantan generated significant government revenues but did not necessarily translate into proportional improvements in community welfare, while environmental degradation and conflicts over land and livelihoods continued to increase. More recent evidence indicates that approximately 40 percent of East Kalimantan's territory has been allocated to coal mining exploration or operations and that mining activities have been associated with deforestation, concession overlaps, settlement conflicts, inadequate reclamation, and serious safety risks (Toumbourou et al. 2023). These conditions demonstrate why the evaluation of mining taxation should extend beyond the amount of revenue collected and consider the relationship between fiscal benefits, environmental liabilities, and community welfare.

From a fiscal justice perspective, citizens should be able to determine how much mining revenue is generated, how much is retained by the central government, how much is transferred to producing regions, and what measurable public outcomes are financed from these resources. Such information is necessary because natural-resource revenue sharing involves a fundamental spatial and institutional separation between the location where resources are extracted, the level of government that collects the associated revenues, and the communities that experience the environmental and social consequences of extraction. Indonesia's fiscal decentralization framework has attempted to address this problem through revenue-sharing arrangements, but the distribution of shared revenues can also produce new inequalities. Akita, Riadi, and Rizal (2021), for example, find that disparities in shared revenues in Indonesia are strongly influenced by the uneven spatial distribution of natural resources and tax bases, making revenue-sharing transfers potentially inequality-increasing across districts. Although general allocation transfers can partially offset these disparities, overall fiscal inequality remains substantial. This finding suggests that resource-producing regions require adequate compensation for extraction-related costs, but such compensation must operate alongside a broader national equalization mechanism so that resource-rich regions do not acquire permanently superior fiscal capacity at the expense of resource-poor regions.

The need for transparency becomes even more significant because information concerning mining fiscal revenues is currently dispersed across different institutional and budgetary systems. The Ministry of Energy and Mineral Resources provides information concerning mining production, mining permits, and non-tax state revenues, while the Ministry of Finance manages information concerning intergovernmental transfers and regional fiscal capacity. Statistics Indonesia provides socioeconomic indicators that can be used to evaluate changes in poverty, employment, income, infrastructure, and human development. However, these datasets are not always integrated in a manner that allows citizens to establish a clear connection between the amount of mining extracted in a particular locality, the fiscal revenues generated from that extraction, the transfers received by the relevant regional government, and the actual welfare outcomes experienced by communities. This institutional fragmentation can weaken public accountability because citizens may know that mining generates substantial economic value without being able to determine precisely how much of that value is transformed into public goods and services in affected areas.

A more integrated transparency mechanism could therefore be developed through what this article conceptualizes as a Mining Fiscal Justice Dashboard. Rather than functioning merely as a financial reporting platform, such a mechanism would connect production, taxation, regional transfers, environmental obligations, public expenditure, and community outcomes. The system could disclose mining production at the company and district levels, fiscal contributions through taxation, royalties, and non-tax state revenue, and the distribution of resource revenues to provincial and district governments. It could simultaneously provide information concerning reclamation obligations, the area requiring rehabilitation, the estimated financial liabilities associated with environmental restoration, and the proportion of reclamation activities completed. Socioeconomic information concerning education, health, clean water, infrastructure, poverty, employment, and household welfare could then be linked to resource-related expenditure. Environmental indicators, including forest-cover change, water quality, land restoration, and mine-pit safety, could provide an additional dimension for evaluating whether fiscal benefits are accompanied by adequate environmental protection. This approach is particularly relevant because research on East Kalimantan has identified significant weaknesses in the environmental supervision of coal mining, including regulatory uncertainty, fragmented institutional authority, limited supervisory capacity, and inadequate follow-up of environmental violations (Nasir, Bakker, and van Meijl 2023).

The value of such a system lies in transforming transparency from a conventional accounting requirement into a mechanism of substantive justice. The purpose would not be to require the disclosure of commercially confidential information but to provide citizens with sufficient public information to evaluate the social value created by resource extraction. Fiscal transparency would enable communities to determine whether substantial mining revenues are accompanied by adequate investment in public services and environmental rehabilitation. It would also make it possible to distinguish between problems arising from insufficient fiscal capacity and problems caused by weak expenditure management. For example, if a mining-producing district receives substantial revenue-sharing transfers but continues to experience poor infrastructure, inadequate health services, or severe environmental degradation, citizens would have a stronger empirical basis for questioning expenditure priorities and administrative performance. Conversely, when mining revenues are effectively transformed into improved education, health services, infrastructure, environmental restoration, and economic diversification, transparency can strengthen public confidence in resource governance. Procedural justice is therefore inseparable from distributive justice because citizens cannot meaningfully evaluate whether resource wealth has been distributed fairly without access to relevant fiscal information.

However, transparency alone is insufficient if the fiscal system itself does not adequately incorporate the economic, environmental, and social characteristics of resource extraction. For this reason, this article proposes a Resource Fiscal Justice Framework (RFJF) for East Kalimantan. The framework is based on five interconnected principles: fair resource-rent capture, producing-region compensation, ecological fiscal incentives, community benefit guarantees, and intergenerational resource investment. These principles are designed to move Indonesia's mining fiscal governance from a predominantly revenue-oriented approach toward a system that evaluates mining according to its broader public value and distributional consequences.

The first principle is fair resource-rent capture. The state should retain an appropriate proportion of the economic rents generated from coal extraction through taxation, royalties, and non-tax state revenues. The purpose of rent capture is not simply to maximize government revenue but to ensure that private companies do not appropriate an excessive proportion of the economic value generated from publicly controlled natural resources. At the same time, the fiscal regime must preserve adequate incentives for investment, employment, technological development, and responsible mining. A balanced system should therefore respond to changes in commodity prices and profitability. When coal prices and corporate profitability increase substantially, the state should be capable of capturing an appropriate proportion of extraordinary rents, whereas during periods of declining prices the fiscal regime should avoid creating unnecessary production distortions. This approach is consistent with the broader principle that natural-resource fiscal regimes should capture resource rents while maintaining economic efficiency (Bahl and Tumennasan 2004).

The second principle is producing-region compensation. Resource-producing regions such as East Kalimantan should receive fiscal transfers that recognize not only the quantity of resources extracted but also the costs associated with extraction. Existing revenue-sharing arrangements provide an important basis for this principle, but a more justice-oriented approach should incorporate factors such as the number of communities affected by mining, environmental risk, infrastructure pressure, transportation costs, reclamation liabilities, land-use conflicts, poverty, public-health risks, and post-mining development requirements. This would represent a shift from a predominantly production-based distribution mechanism toward an impact-sensitive revenue-sharing model. Such an approach is particularly important because the environmental and social effects of mining are not necessarily proportional to production volumes. A district with relatively high production but limited population exposure may face different fiscal requirements from a district where mining concessions overlap extensively with settlements, agricultural land, forests, and community livelihoods.

The third principle is ecological fiscal incentives. The existing fiscal relationship between mining and regional governments should be supplemented by incentives that reward measurable environmental performance. This is particularly important in East Kalimantan, where research has documented widespread land clearing, inadequate reclamation, settlement overlap, and mine-pit safety risks associated with coal extraction (Toumbourou et al. 2023). Regional governments that demonstrate measurable reductions in deforestation, successful reclamation, improved water quality, restoration of degraded land, reduced mine-pit risks, stronger environmental monitoring, and meaningful community participation could receive additional fiscal incentives. Such a mechanism would transform environmental protection from an expenditure burden into an element of fiscal performance. In other words, local governments would have an economic incentive to protect environmental assets because superior environmental outcomes would contribute to additional fiscal capacity.

This principle is particularly relevant because environmental governance in Indonesian coal-producing areas is characterized by institutional complexity. Nasir, Bakker, and van Meijl (2023) demonstrate that environmental management in East Kalimantan is affected by overlapping institutional responsibilities, uncertain regulatory provisions, insufficient personnel and funding, and weak implementation of environmental supervision. DOI A fiscal mechanism linked to environmental performance could therefore complement conventional regulatory approaches by providing regional governments with stronger incentives and resources to monitor environmental obligations. It would also support the polluter-pays principle by ensuring that environmental costs are not systematically transferred from mining companies to local communities and future governments.

The fourth principle is community benefit guarantees. The ultimate objective of resource taxation should be to convert natural-resource wealth into improvements in human welfare. Accordingly, the success of mining fiscal policy should not be measured exclusively by the amount of money received by a province or district but by the measurable improvements experienced by communities living in mining-affected areas. This requires resource-related expenditure to prioritize public services and productive investments capable of reducing the long-term social costs of extraction. Education, health services, clean water, infrastructure, livelihood development, agricultural productivity, vocational training, local enterprise development, and environmental rehabilitation should therefore become central components of mining-related regional expenditure. The appropriate analytical question should consequently shift from how much revenue a producing district receives to what measurable welfare improvements communities obtain from that revenue. This distinction is crucial because a substantial fiscal transfer does not automatically produce equitable development if expenditure is poorly targeted, administrative capacity is weak, or resource revenues are directed toward short-term consumption.

The fifth principle is intergenerational resource investment. Coal is a finite and non-renewable resource, meaning that fiscal revenues generated through extraction are temporary. A resource-producing region therefore faces a fundamental intergenerational challenge: whether current resource wealth is converted into assets capable of generating welfare after coal production declines. Hartwick's (1977) theory of intergenerational equity provides a useful foundation for this argument because it emphasizes the importance of investing resource rents in reproducible capital so that the welfare of future generations is not diminished by the depletion of natural-resource stocks. In East Kalimantan, this principle implies that a portion of mining-related revenues should be allocated to economic diversification, higher education, renewable energy, agricultural productivity, environmental restoration, strategic infrastructure, technological development, and post-coal employment programs. Such investments would reduce regional dependence on annual commodity revenues and strengthen the capacity of local economies to withstand the eventual decline of coal extraction.

The importance of this intergenerational dimension has become increasingly evident as Indonesia considers energy transition and decarbonization. Research on Indonesia's coal-producing regions indicates that East Kalimantan is particularly exposed to the socioeconomic consequences of coal transition because coal provides employment and significant fiscal revenues for local governments (Setiawan et al. 2024). A fiscal system that uses coal revenues primarily for short-term expenditure may therefore create a future fiscal shock when production declines. By contrast, a resource fund or equivalent institutional mechanism could reserve part of mining-related revenues for long-term investments that maintain regional welfare after coal extraction becomes less economically significant.

Taken together, these five principles establish an integrated relationship between mining taxation, revenue sharing, environmental governance, community welfare, and intergenerational sustainability. Fair rent capture provides the fiscal resources required for public purposes; producing-region compensation recognizes the spatial concentration of extraction-related costs; ecological fiscal incentives encourage environmental responsibility; community benefit guarantees ensure that fiscal resources are translated into tangible improvements in people's lives; and intergenerational investment converts temporary mineral wealth into permanent economic, social, and environmental capital. The framework therefore moves the analysis of mining taxation beyond the conventional question of how much revenue is collected toward the broader question of who benefits, who bears the costs, and whether resource wealth produces durable public value.

This integrated perspective is especially important for East Kalimantan because the province illustrates the contradiction between high resource wealth and persistent environmental and distributive challenges. The concentration of coal mining has generated significant economic activity and fiscal revenues, but empirical research has also documented environmental degradation, land-use conflicts, inadequate reclamation, and risks to local communities (Siburian 2012; Toumbourou et al. 2023). Consequently, mining taxation should not be treated as an isolated component of fiscal policy. Taxation, royalties, PNBP, intergovernmental transfers, environmental regulation, reclamation obligations, community development, and regional economic planning should operate as an integrated governance system. A weakness in one component can undermine the effectiveness of the others. Substantial mining revenues, for example, may generate limited distributive benefits if regional expenditure is ineffective, while strong environmental regulation may remain difficult to implement if local governments lack sufficient fiscal and administrative capacity.

The proposed Resource Fiscal Justice Framework therefore suggests that the performance of mining governance should ultimately be evaluated through net public benefit rather than revenue generation alone. Net public benefit refers to the extent to which fiscal and economic gains from resource extraction, after accounting for environmental and social costs, are converted into improvements in public services, environmental quality, productive capacity, and long-term economic resilience. Such an approach recognizes that natural resources are public assets and that their exploitation creates obligations extending beyond the current fiscal year. The objective of fiscal policy should consequently be to ensure that the benefits of mining are broadly distributed, environmental costs are appropriately internalized, affected communities receive meaningful compensation and development benefits, and sufficient resource wealth is preserved for future generations. In this sense, transparency and accountability are not merely administrative requirements but fundamental conditions for transforming Indonesia's mining fiscal regime into a system capable of delivering distributive, environmental, procedural, and intergenerational justice.

Conclusion

East Kalimantan demonstrates both the fiscal value and the distributive risks of natural-resource extraction. Coal mining contributes substantially to Indonesia's national fiscal capacity through taxation, royalties, and non-tax state revenues, while also generating employment, investment, and regional economic activity. However, these aggregate contributions do not automatically establish fiscal justice. The costs of extraction are geographically concentrated and include land degradation, deforestation, water pollution, infrastructure pressure, livelihood disruption, social conflict, and post-mining liabilities. Consequently, the fiscal contribution of mining should be evaluated against the broader public costs generated by extraction. Indonesia's post-decentralization revenue-sharing system provides an important mechanism for compensating producing regions, but existing arrangements must be assessed not only in terms of the amount transferred but also in terms of whether the transfers are sufficient, transparently administered, environmentally responsive, and converted into measurable improvements in community welfare.

A more comprehensive resource fiscal justice regime should integrate five principles: fair capture of resource rents, compensation for producing regions, ecological fiscal transfers, community benefit guarantees, and intergenerational investment. For East Kalimantan, mining revenues should be transformed into durable public assets, environmental restoration, improved public services, and economic diversification capable of reducing dependence on coal. Fiscal justice therefore requires a shift from measuring mining success through production and state revenue toward measuring it through net public benefit. The ultimate test of mining taxation should be whether resource wealth produces lasting improvements in the lives of communities living in resource-producing areas while ensuring that environmental liabilities are internalized by those who generate them. Such a framework would strengthen the legitimacy of Indonesia's mining governance and provide East Kalimantan with a more sustainable fiscal foundation beyond the coal economy.

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