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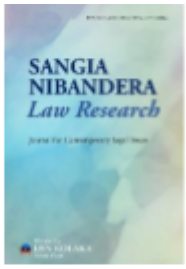

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Exporting Black Gold Means Importing Power Outages: The Juridical Failure of Indonesia's Coal Distribution Governance

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Abstract

Indonesia, as the world's largest exporter of thermal coal, experienced rolling blackouts across Java in June 2026, affecting power generation capacity by up to 2 GW, a paradox that illustrates the legal failure of the Domestic Market Obligation (DMO) policy. This study aims to analyse the structural, governance and policy failures within the DMO framework in ensuring national energy security. The study employs a normative legal method (doctrinal legal research), utilising legal, conceptual and case-based approaches, whilst analysing primary legal sources. The findings reveal three interrelated levels of failure. Firstly, structural and legal failures: the fixed price cap of US$70 per tonne, which has remained unchanged since 2018, creates an "*Export Premium Paradox*" whereby the law mandates compliance, whilst the market actually

incentivises non compliance through a price differential of US$54 78 per tonne between domestic and global prices, thereby undermining the normative effectiveness of the legislation. Secondly, governance failures: production restrictions (the 400 million tonne cap set by the RUEN versus actual production of 817 million tonnes), bureaucratic obstacles within the RKAB, weak law enforcement lacking credible deterrents, and systemic corruption (exposed through the KPK's investigation into mining permits) exacerbate the DMO's legal shortcomings. Thirdly, policy failure: reactive crisis management such as export bans, production cuts and blending regulations merely addresses temporary symptoms, whilst the underlying price-setting mechanism remains unreformed. This theoretical contribution demonstrates that a static regulatory framework collapses under dynamic market conditions, thereby challenging the command-and-control approach. This study recommends six reforms: dynamic price setting linked to the HBA benchmark; quality specifications; production coordination aligned with the RUEN; enhanced law enforcement with proportionate sanctions; anti-corruption measures; and a constitutional review based on Article 33(3). This case offers broader lessons for resource-rich developing countries: legal certainty and proportionality.

Keywords

Domestic Market Obligation (DMO); Coal Governance; Juridical Failure; Energy Security; Price Regulation

Abstrak

Indonesia, sebagai eksportir batubara termal terbesar di dunia, mengalami pemadaman bergilir di seluruh Jawa pada Juni 2026, yang berdampak pada kapasitas pembangkit hingga 2 GW sebuah paradoks yang menggambarkan kegagalan hukum dari kebijakan Kewajiban Pasar Domestik (DMO). Penelitian ini bertujuan untuk menganalisis kegagalan struktural, tata kelola, dan kebijakan dalam kerangka kerja DMO dalam menjamin ketahanan energi nasional. Penelitian ini menggunakan metode yuridis normatif (penelitian hukum doktrinal) dengan memanfaatkan pendekatan yuridis, konseptual, dan berbasis

kasus, serta menganalisis bahan hukum primer. Temuan penelitian mengungkap tiga tingkatan kegagalan yang saling terkait. Pertama, kegagalan struktural dan hukum: batas harga tetap sebesar US$70 per ton, yang tidak berubah sejak 2018, menciptakan "Paradoks Premi Ekspor" di mana undang-undang mewajibkan kepatuhan, sementara pasar justru memberi insentif bagi ketidakpatuhan melalui selisih harga sebesar US$54-78 per ton antara harga domestik dan global, sehingga melemahkan efektivitas normatif undang-undang tersebut. Kedua, kegagalan tata kelola: pembatasan produksi (batas 400 juta ton yang ditetapkan RUEN versus produksi aktual sebesar 817 juta ton), hambatan birokrasi di RKAB, penegakan hukum yang lemah tanpa efek jera yang kredibel, serta korupsi sistemik (yang terungkap melalui penyelidikan KPK terhadap izin pertambangan) memperparah kegagalan yuridis DMO. Ketiga, kegagalan kebijakan: manajemen krisis yang reaktif larangan ekspor, pemotongan produksi, dan regulasi pencampuran hanya menangani gejala sementara mekanisme penetapan harga yang mendasar tetap tidak direformasi. Kontribusi teoretis ini menunjukkan bahwa kerangka regulasi statis runtuh di bawah kondisi pasar yang dinamis, sehingga menantang pendekatan perintah dan kontrol. Penelitian ini merekomendasikan enam reformasi: penetapan harga dinamis yang terikat pada patokan HBA; spesifikasi kualitas; koordinasi produksi yang selaras dengan RUEN; penegakan hukum yang ditingkatkan dengan sanksi yang proporsional; langkah-langkah antikorupsi; serta tinjauan konstitusional berdasarkan Pasal 33 ayat (3). Kasus ini memberikan pelajaran yang lebih luas bagi negara-negara berkembang yang kaya sumber daya: kepastian hukum, dan proporsionalitas.

Kata Kunci
Kewajiban Penjualan Pasar Dalam Negeri (DMO); Tata Kelola Batubara; Kegagalan Yuridis; Ketahanan Energi; Penetapan Harga

A. Introduction

Indonesia occupies a unique position in the global energy landscape. The country is the world's largest exporter of thermal coal, supplying more than 40 percent of internationally traded coal; however, in June 2026, rolling blackouts struck the island of Java, affecting power generation capacity by up to 2 GW and disrupting business activities, factories and the daily lives of millions of citizens. This paradox of a coal-rich nation experiencing electricity shortages is not merely an operational failure, but a legal failure rooted in the structural inadequacies of Indonesia's Domestic Market Obligation (DMO) policy. The DMO, established under the constitutional mandate of Article 33(3) of the 1945 Constitution which states that 'the land, water and natural resources contained therein shall be controlled by the state and utilised for the benefit of the people to the greatest possible extent' was designed to ensure that domestic energy needs are prioritised over export opportunities. However, a policy originally intended to guarantee energy security has instead become the very source of its own downfall.

The regulatory architecture of the DMO is based on a tiered framework. Law No. 2 of 2025 (the Fourth Amendment to Law No. 4 of 2009 on Mineral and Coal Mining) serves as the primary legal basis. Government Regulation No. 96 of 2021, as amended by Government Regulation No. 39 of 2025, stipulates in Article 157 that mining licence holders must "prioritise domestic demand for minerals and coal before undertaking exports", which explicitly includes state-owned enterprises in the electricity, energy supply, and other strategic industries. MEMR Regulation No. 25 of 2018 serves as the implementing regulation, requiring mining companies to prioritise domestic demand, with export approval contingent upon fulfilment of DMO obligations. Annual Ministry of Energy and Mineral Resources (MEMR/Mentri ESDM) Ministerial Decisions set DMO quotas and price caps, whilst MEMR Regulation No. 6 of 2026, which came into force on 8 June 2026, requires prior ministerial approval for coal blending a belated acknowledgement of the quality dimension of this crisis.

The main issue, however, lies in the DMO pricing mechanism. Since 2018, the government has set a DMO price

cap of US$70 per tonne,[1] for coal with a calorific value of 6,322 Gross As Received (GAR). This price has remained unchanged for nearly eight years, despite inflation, rising production costs and dramatic fluctuations in the global coal market. In June 2026, the Reference Coal Price (HBA) stood at around US$124 per tonne, creating a gap of US$54 per tonne between domestic obligations and export incentives. For medium-calorific coal, specifically the type required by PLN's power stations for blending, the effective DMO price has fallen to around US$35-38 per tonne. Meanwhile, the stripping ratio (the volume of overburden that must be removed to access the coal reserves) for medium calorific coal has reached between 8 and 12, thereby significantly increasing production costs. Consequently, many mining companies are effectively selling to PLN at prices equal to or below production costs, with some even operating at a loss.[2]

This price distortion creates what I call the "E*xport Premium Paradox*": the legal framework forces miners to prioritise domestic supply, yet the economic framework actually incentivises them to do the opposite. A miner supplying coal under the DMO receives US$70 per tonne (or US$35-38 for medium-calorific coal), whilst the same coal, if exported, fetches around US$124-148 per tonne. This price differential acts as an economic subsidy for non compliance the law mandates compliance, whilst the market penalises it.[3] From an economic law perspective, this represents a normative contradiction that undermines the legitimacy of the regulatory framework itself.

The consequences are profound and quantifiable. In April 2026, PLN's average coal reserves stood at just 15.9 days of

[1] Giska Viona Agatha, "Uji Beda Abnormal Retrun, Trading Volume, Dan Market Capitalization Sebelum Dna Sesudah Pengumuman Kebijakan Harga Jual DMO Batubara," *Malang: Universitas Brawijaya*, 2019.

[2] Regita Hawari and Mursyid Hasan Basri, "Proposed Solution to Optimize Production Cost in Fulfilling Domestic Market Obligations (Study Case: Coal Mining Company in Indonesia)," in *The 3rd Asia Pacific International Conference on Industrial Engineering and Operations Management*, 2022, 3858–63.

[3] F Afandi, Donny Yoesgiantoro, and Lukman Yudho Prakoso, "The Effect of Coal DMO Policy on National Energy Security in Supporting National Defense and Security," *International Journal of Research and Innovation in Social Science*, 2022, https://doi.org/10.47772/ijriss.2022.6610.

Power Plant Operations (HOP), below the ideal threshold of 20–25 days. PLN's annual coal requirement for 2026 is projected at 154 million metric tonnes, yet PLN has only secured contracts for around 134 million metric tonnes, resulting in a shortfall of between 18 million and 20 million metric tonnes. Although the government has allocated 180-190 million metric tonnes through the DMO priority scheme far exceeding PLN's actual requirements, a gap between the allocation and the contracted supply remains.[4] The power cuts in June 2026 were not caused by the volume shortfall itself, but rather by a quality mismatch: Indonesian coal production is dominated by low grade coal, whilst PLN's power stations require medium calorific coal with a calorific value above 5,000 kcal/kg for proper blending.[5]

This study addresses three interrelated research questions. First, structural-legal failure: How does the DMO's fixed-price mechanism create an inherent conflict between legal obligations and commercial rationality, and what does this reveal about the limits of command and control regulation in a volatile commodities market? Second, a governance failure: How have suboptimal governance mechanisms including weak law enforcement, bureaucratic delays and systemic corruption exacerbated the DMO's legal failure? Third, a policy failure: What legal reforms are required to reconcile Indonesia's constitutional mandate regarding state control over natural resources with the practical realities of the global coal market? Methodologically, this doctrinal legal study employs a normative-juridical approach, analysing primary legal materials (laws, regulations and government decisions) alongside secondary sources (academic literature, audit reports and policy analyses). Comparative institutional analysis examines the interplay between legal norms, administrative enforcement and economic incentives.

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[4] Salman Akira Togi and Ima Mayasari, "Realisasi Kebijakan Domestic Market Obligation Batubara Pada Tahun 2018-2022," *Journal Publicuho* 6, no. 4 (2023): 1288–1300.

[5] Firly Rachmaditya Baskoro et al., "Multi-Objective Optimization on Total Cost and Carbon Dioxide Emission of Coal Supply for Coal-Fired Power Plants in Indonesia," *Socio-Economic Planning Sciences* 81 (2022): 101185.

B. Method

This study employs a normative legal methodology (normative legal research), also known as doctrinal legal research, to systematically examine the legal shortcomings of Indonesia's Domestic Market Obligation (DMO) policy in the coal sector. As a normative study, this research treats the law as a system of norms, principles and doctrines, focusing on the positive legal rules governing coal supply obligations rather than on empirical field data. This study employs three main legal approaches. First, the statutory approach analyses the hierarchical legal framework governing the DMO, including the 1945 Constitution (Article 33(3)), Law No. 2 of 2025 on Mineral and Coal Mining, Government Regulation No. 96 of 2021 as amended by Government Regulation No. 39 of 2025, Minister of Energy and Mineral Resources Regulation No. 25 of 2018, and Minister of Energy and Mineral Resources Regulation No. 6 of 2026. Secondly, the conceptual approach examines the legal principles underpinning economic regulation namely legal certainty, proportionality and regulatory effectiveness to assess whether the DMO framework meets these doctrinal standards. Thirdly, the case-based approach analyses selected legal events, including enforcement actions and disputes within PLN's supply chain, to illustrate the practical failures of legal norms. The legal material used consists entirely of secondary data: primary legal material (binding laws and regulations); secondary legal material (academic literature, legal commentaries, and policy analyses from institutions such as Perhapi, APBI, and PWYP Indonesia); and tertiary legal material (legal dictionaries and encyclopaedias). Data collection was carried out through a literature review, systematically examining official government gazettes, ministerial decisions, audit reports and academic publications. The analysis employed qualitative descriptive reasoning using deductive logic. This research was carried out by: (1) identifying the relevant legal norms governing the DMO; (2) evaluating these norms against established principles of economic law; (3) diagnosing normative conflicts and institutional gaps revealed through comparison; and (4) formulating legal reforms based on doctrinal findings. Legal

interpretation techniques—including grammatical, systematic and teleological interpretation—were applied to resolve ambiguities and ascertain the intended purpose of the DMO regulations. This method produced a comprehensive doctrinal diagnosis of the structural shortcomings of the DMO and provided a norm-based reform agenda.

C. Result and Discussion

1. Legal Framework

The constitutional basis for the governance of Indonesia's natural resources is Article 33(3) of the 1945 Constitution, which states that "*land, water and the natural resources contained therein are under the control of the state and shall be utilised for the benefit of the people to the greatest possible extent*." This provision establishes the state's supreme authority and responsibility over resource governance, implementing what experts refer to as the "*Principle Of State Control*" (asas penguasaan negara). The DMO policy is one manifestation of this constitutional mandate, translating the abstract principle of state control into concrete regulatory obligations for private mining companies.

The legal framework for the DMO has evolved through various legislative revisions. Act No. 2 of 2025, the Fourth Amendment to Act No. 4 of 2009 on Mineral and Coal Mining, provides the legal basis for mining regulation. Government Regulation No. 96 of 2021 on the Implementation of Mineral and Coal Mining Business Activities initially established the DMO obligation, which was subsequently amended by Government Regulation No. 39 of 2025. Article 157 of the latter regulation requires mining licence holders to "prioritise domestic demand for minerals and coal before exporting", which explicitly includes state owned enterprises in the electricity, energy supply and other strategic industries sectors. This provision creates a legal obligation that is not only clear in its wording but also broad in scope.

The implementing regulation, MEMR Regulation No. 25 of 2018, operationalises the DMO through a dual mechanism: first, by requiring mining companies to prioritise domestic demand; second, by making export approval conditional upon fulfilment

of DMO obligations. Annual MEMR Ministerial Decisions set specific DMO quotas and price caps. MEMR Ministerial Decision No. 1395K/30/MEM/2018 set the DMO price cap at US$70 per metric tonne for coal with a calorific value of 6,322 GAR, a price that has remained unchanged. More recently, MEMR Regulation No. 6 of 2026, which came into force amidst the June crisis, mandates prior ministerial approval for coal blending, a regulatory response to the quality discrepancies that have been a defining feature of the crisis.[6]

The DMO pricing mechanism is the policy feature with the greatest impact and the most problematic. The US$70 price cap acts as a price ceiling regardless of production costs, creating what economic legal experts refer to as 'regulatory taking' forcing miners to sell below market value without adequate compensation. This price cap applies to high calorific coal (6,322 GAR), yet its impact ripples across the entire coal market.[7] For medium calorific coal (4,200-5,000 GAR), the effective price has fallen to around US$35-38 per tonne. This is the coal that PLN actually needs for its power stations, yet it is precisely in this segment that the gap between the DMO price and production costs is most acute. The stripping ratio for medium-calorific coal has reached 8-12, meaning that for every metric tonne of coal extracted, 8 to 12 metric tonnes of overburden must be removed. Production costs for medium calorific coal now generally exceed US$35 per metric tonne, meaning that many miners are selling to PLN at prices equal to or below production costs.[8]

The gap between the DMO price and the global market price has widened dramatically. In June 2026, the HBA benchmark stood at around US$124 per tonne, with Newcastle futures contracts reaching US$148.75.[9] A differential of

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[6] Siti Hodijah, "An Analysis of Determinants and Policies of Indonesian Coal Export," *The Asian Journal of Professional & Business Studies* 6, no. 2 (2025): 156–69.

[7] Thomas J Miceli and Kathleen Segerson, "Compensation for Regulatory Takings: An Economic Analysis with Applications," *(No Title)*, 1996.

[8] Hodijah, "An Analysis of Determinants and Policies of Indonesian Coal Export."

[9] Titis Dyah Safitri, S Maharani, and D Narullia, "MARKET REACTIONS TO DOMESTIC MARKET OBLIGATION (DMO) COAL PRICE POLICY CHANGES:

US$54-78 per tonne between domestic obligations and export opportunities creates what I call the "Export Premium Paradox": the higher global prices rise, the greater the incentive to divert coal from the domestic market to the export market, and the greater the failure of the DMO to achieve its stated objectives. This is not a failure of implementation, but rather a structural flaw in the regulatory architecture itself.[10]

Academic studies on coal governance in Indonesia have examined various dimensions of the DMO, including its implications for the energy transition, investment climate tensions, and environmental governance. However, there has yet to be a comprehensive legal analysis that systematically deconstructs the DMO's failure as a matter of economic law specifically, how the policy's normative structure violates the fundamental principles of legal certainty, proportionality, and regulatory effectiveness. The existing literature tends to treat the DMO as a matter of policy implementation, rather than a legal failure. This research fills that gap by demonstrating that the DMO crisis is not merely a matter of poor enforcement, but rather a structurally flawed legal design.

The governance dimensions of the DMO have received academic attention, particularly regarding the role of the approval process for the Work Plan and Budget (Rencana Kerja dan Anggaran Biaya/RKAB). The RKAB is intended to coordinate production planning, yet it has become a source of uncertainty rather than stability. The gap between the 400 million tonne production limit set out in the National Energy Master Plan (RUEN) and the actual production of 817 million tonnes represents what legal experts refer to as an 'implementation deficit' , the gap between legal norms and administrative reality. The production target for 2026 was initially set at around 600 million tonnes, down from 790

EVIDENCE FROM INDONESIA," *Jurnal Aplikasi Manajemen*, 2021, https://doi.org/10.21776/ub.jam.2021.019.02.13.

[10] Oxaria Silviana Devi, Sri Suryaningsum, and Sutoyo, "ANALYSIS OF THE REALIZATION OF DOMESTIC MARKET OBLIGATION POLICY ON NATIONAL ENERGY SECURITY INDEPENDENCE," *Count : Journal of Accounting, Business and Management*, 2024, https://doi.org/10.61677/count.v2i2.302.

million tonnes in 2025, but this target remains flexible, depending on developments in domestic demand. The government approved more than 600 million tonnes in the 2026 RKAB, a moderate increase from the 580 million tonnes previously approved in March, reflecting the government's gradual easing of production restrictions. This administrative flexibility, whilst perhaps pragmatic, undermines the legal certainty that the RKAB is intended to provide.[11]

Corruption in the coal sector represents another governance shortfall.[12] In August 2025, the Corruption Eradication Commission (KPK) detained coal magnate "initials ROC" on corruption charges relating to mining licences in East Kalimantan.[13] The KPK's investigation uncovered 'systematic' corruption in the granting of mining licences, resulting in 'environmental damage costing the state hundreds of trillions' of rupiah. This case forms part of a wider investigation involving a number of officials, including the former governor of East Kalimantan. Corruption in mining permits has long been rife in Indonesia's resource rich provinces, where business interests often collude with local and national officials. This institutional capture where private interests undermine the objectives of public regulation exacerbates the DMO's legal shortcomings.

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[11] Ridwan Saleh, "DOMESTIC MARKET OBLIGATION (DMO) POLICY AND ITS IMPLEMENTATION STRATEGIES" 15 (2012): 42–58, https://doi.org/10.30556/imj.vol15.no1.2012.474.

[12] Asish K Sahu, "THE COAL CHALLENGE IN INDIA," *International Journal of Students' Research in Technology \& Management* 3 (2015): 231–33.

[13] Yustinus Paat Muhammad Aulia Rahman, "KPK Detains Coal Tycoon Rudy Ong in Mining Permit Graft Case" (Jakartaglobe.id, 2025).

[14] Lena Tria Melati, Imam Supriyadi, and Yusuf Ali, "Coal Domestic Market Obligation (DMO) Policy Implementation in Indonesia to Achieve Energy Security," *World Journal of Advanced Research and Reviews* 16, no. 2 (2022): 369–74.

specifically, how the policy's normative structure violates the fundamental principles of legal certainty, proportionality, and regulatory effectiveness. The existing literature tends to treat the DMO as a matter of policy implementation, rather than a legal failure.

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[15] Daniel A Farber, "The Implementation Gap in Environmental Law," *Journal of Korean Law* 16, no. 1 (2016): 3–32.

[16] Pwypindonesia, "Coal Production Cuts: A Crucial Step Towards a Just Energy Transition" (Publish What You Pay Indonesia, 2025).

[17] "Indonesia to Lift Coal Production Quota to Over 600 Million Tons" (Jakartaglobe.id, n.d.).

[18] Grace Gandhi, "Indonesia Hikes Coal Production Quota over 600 Million Tons" (tempo.co, 2026).

[19] Muhammad Aulia Rahman, "KPK Detains Coal Tycoon Rudy Ong in Mining Permit Graft Case."

corruption in the granting of mining licences, resulting in 'environmental damage costing the state hundreds of trillions' of rupiah. This case forms part of a wider investigation involving a number of officials, including the former governor of East Kalimantan. Corruption in mining permits has long been rife in Indonesia's resource-rich provinces, where business interests often collude with local and national officials. This institutional capture where private interests undermine the objectives of public regulation exacerbates the DMO's legal shortcomings.

2. Structural Failures of the Law: When the Law Conflicts with the Economy

The fundamental legal flaw in the DMO lies in its pricing mechanism, which creates an irreconcilable conflict between legal obligation and economic rationality. The DMO obliges miners to prioritize domestic supply, but its pricing structure makes compliance with the rule economically irrational. This is not simply a matter of incentives, but a fundamental legal principle: a law that mandates something it cannot enforce, and punishes those who comply, lacks what legal theorists call "normative efficacy" the ability to generate actual behavioral compliance.

The "*Export Premium Paradox*" encapsulates this contradiction. A miner supplying coal under a DMO receives US$70 per ton for high-calorie coal (or US$35–38 for medium-calorie coal),[20] while the same coal, if exported, could be sold for US$124–148 per ton. The difference of US$54–78 per ton serves as an economic incentive to disobey the regulation.[21] Director of the Indonesian Center for Energy and Resources (CERI), observed, "many mining companies are 'rogue' and do not comply with DMO regulations. They are reluctant to fulfill their DMO obligations because their primary driving force is profit."[22] Sanctions for non compliance especially export bans

[20] Teuku Muhammad Valdy Arief, "Harga DMO Batu Bara Dikaji Ulang, Pengusaha Usul Naik Di Atas 80 Dollar AS" (money.kompas.com, 2026).

[21] Teuku Muhammad Valdy Arief.

[22] Perhapi, "Akal-Akalan DMO: Bara Untuk Cuan, Gelap Untuk Negeri" (perhapi.or.id, n.d.).

lack a credible deterrent because the difference in export prices far exceeds the cost of the sanctions.

This price distortion permeates the entire supply chain. A PLN audit revealed that "suppliers with DMO obligations prefer annual contracts to long-term agreements because the mandatory domestic price of US$70 per ton is no longer commercially viable." PLN and independent power producers struggle to secure long-term supply agreements, forcing them to rely on expensive spot purchases and short-term contracts. PLN's coal demand for 2026 is projected at 154 million tons, but to date it has only secured contracts for around 134 million tons, leaving a shortfall of 18-20 million tons. Although the government has allocated 180-190 million tons through the DMO priority scheme far exceeding actual demand, the gap between allocation and contracted supply remains. This gap is not a supply failure, but rather a failure of the contracting mechanism that the DMO is supposed to facilitate.[23]

The quality dimension of this crisis exposed regulatory blind spots. The June 2026 power outage in Java was not caused by a volume shortage, but by a quality mismatch. Indonesia's coal production consists largely of low rank coal around 80 percent of which has a calorific value below 5,000 kcal/kg while PLN's power plants require coal with a medium calorific value above 5,000 kcal/kg for proper blending.[24] The DMO regulatory framework addresses quantity (volume obligations) but ignores quality specifications. This regulatory blind spot illustrates what academics call "incomplete regulation" , a legal framework that defines obligations in one dimension while ignoring other equally important ones. The government's belated response MEMR Regulation No. 6/2026, which requires prior approval for coal blending acknowledges this failure but remains reactive, not preventative.

The contractual consequences are equally significant. PLN President Director Darmawan Prasodjo acknowledged in late June 2026 that "the supply of primary energy (coal) that meets

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[23] Bambang Ismoyo Mita Amalia Hapsari, "DEN Urges DMO Review as Blackouts Hit World's Biggest Coal Exporter" (Jakartaglobe.id, 2026).

[24] Alfi Dinilhaq Andi Maulana, "PLN Rushes Coal Supplies After Power Outages Hit Java" (Jakartaglobe.id, 2026).

the specifications required by our power plants is running well," but this statement was only made after the blackout had occurred and emergency procurement measures had been implemented. The government established a special procurement team to bolster coal supply, and PLN accelerated the procurement of medium-grade coal. However, these emergency measures only addressed the symptoms, not the cause. As a member of Commission XII of the House of Representatives (DPR) observed, "the problem is not the availability of domestic coal, but rather how the supply allocated by the government can be promptly contracted, distributed, and delivered to power plants as needed."

The failure of the DMO legislation has been exacerbated by governance deficits at various levels. The most fundamental governance failure relates to production controls. Presidential Regulation No. 22 of 2017 on the National Energy Master Plan (RUEN) sets a maximum coal production threshold of 400 million tonnes, effective from 2019. However, actual production has consistently exceeded this limit reaching 836 million tonnes in 2024 and around 790 million tonnes in 2025. In 2025 alone, the government set a target of 735 million tonnes, whilst mining companies' Annual Work and Budget Plans (RKAB) proposed around 900 million tonnes. The 2026 production target was initially set at around 600 million tonnes, down from 790 million tonnes in 2025, but this target remains flexible. By mid-June 2026, the government had approved more than 600 million tonnes under the RKAB, a slight increase from the previous 580 million tonnes. This mismatch between statutory planning and actual production constitutes a systemic governance failure; the state lacks the institutional capacity to align production with national energy planning.

The RKAB approval process has become a critical bottleneck. Perhapi reports that "bureaucratic delays in approving miners' annual RKABs are increasingly paralysing the supply chain." The government had approved 664 coal mining RKABs by midp June 2026, with further applications still under review. The government plans to open a window for RKAB revisions from July, although officials have not yet determined the volume of additional production that may be granted. This

administrative dysfunction has transformed the regulatory tool (RKAB) into a source of instability, a classic example of 'regulatory failure' where the regulatory process undermines the very objectives of the regulation itself.

The DMO's enforcement mechanism relies primarily on export bans for non compliant companies. However, these sanctions have proved ineffective for the reasons already discussed: the export premium far outweighs the cost of non-compliance, meaning the threat of sanctions lacks a credible deterrent effect. Civil society organisations have criticised this approach, arguing that "the government must revisit the root of the problem in the upstream sector: the failure to control coal production at the national level." Publish What You Pay (PWYP) Indonesia further notes that "restricting coal exports alone" is insufficient without production controls.[25]

The corruption dimension of governance failures is deeply damaging. The detention of Rudy Ong Chandra by the KPK in August 2025 exposed 'systemic' corruption in mining permits. The case involved bribes paid to government officials to secure mining concessions within protected forest areas. The KPK's investigation revealed that corruption in mining permits has caused "environmental damage costing the state hundreds of trillions" of rupiah. PWYP Indonesia highlighted "poor governance in this sector such as unfulfilled reclamation guarantees, abandoned mine pits, rampant illegal mining, corruption, human rights violations and weak law enforcement." Within PLN's procurement chain, allegations have emerged of "manipulation of coal specifications", whereby "low-quality coal is still paid for at the price of high-specification coal, causing significant losses to the state". This pattern of corruption reveals that the failure of the DMO legislation is not merely a matter of policy design but also of institutional capture where private interests undermine the objectives of public regulation.

This regulatory failure has resulted in quantifiable economic costs. PLN's 2023 risk management report estimated that the potential losses resulting from disruptions to coal supplies to the 2 GW Jawa 7 power plant alone amounted to 1.1

[25] Pwypindonesia, "Coal Production Cuts: A Crucial Step Towards a Just Energy Transition."

trillion rupiah (approximately US$61.5 million), including higher primary energy costs and take-or-pay penalties.[26] By May 2024, the situation had worsened: replacement costs and take-or-pay penalties at Jawa 7 had reached 1.89 trillion rupiah, whilst the Nagan Raya 3-4 power stations in Aceh recorded losses of 754 billion rupiah. The capacity factor of PLN's power stations on the Java-Bali grid fell to 68.56 per cent in 2023. The capacity factor for Java-7 ranged between 46.5 per cent and 85.23 per cent, with some units operating "well below their potential due to disrupted coal deliveries".[27]

The 2026 crisis saw even more dramatic consequences. The estimated export diversion required to restore PLN's coal production capacity to ideal levels is 3.4-4.2 million tonnes, resulting in export losses of US$230-285 million.[28] This diversion is equivalent to 11-14 per cent of the monthly value of coal exports. Whilst the macroeconomic impact may be relatively small compared to total trade flows, the microeconomic impact on the affected industries and households is significant. Widespread power cuts across Java disrupted factories and supply chains, raising concerns about investment confidence and economic growth.

The cost is ultimately borne by the Indonesian public. As a Kompas editorial put it: "A country known as one of the world's leading coal suppliers has not yet been fully able to guarantee a reliable electricity supply for its own people". The power cuts in Java in June 2026, which affected capacity by up to 2 GW, were not an isolated incident but a predictable consequence of years of regulatory failure. The government's belated acknowledgement of this issue including the formation of a special procurement team, consideration of price adjustments, and recognition of rising production costs underscores the

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[26] Danantara Indonesia, "Mewujudkan Swasembada Energi Berkelanjutan Yang Berintegritas, Transparan Dan Akuntabel," 2024.

[27] IEEFA, "IEEFA: Indonesia's Excess Coal Power Capacity and PLN's Debt Burden Are Blocking Their Decarbonization Pathway" (ieefa.org, 2021).

[28] Kefas Sidauruk, "MacroInsight - Coal Export Diversion: Limited Drag on Rupiah" (www.indopremier.com, 2026).

reactive, rather than proactive, nature of the regulatory framework.

The DMO crisis serves as a clear example of what economic law experts refer to as the 'regulatory trilemma': the impossibility of simultaneously achieving (1) domestic price stability, (2) market efficiency, and (3) the legitimacy of compliance. The fixed price caps set by the DMO seek to achieve price stability (for PLN and consumers) but come at the expense of market efficiency (by distorting supply incentives) and the legitimacy of compliance (by making compliance an economically irrational act). The result is a regulatory regime that is legally valid but economically invalid a legal failure in the deepest sense.[29]

From the perspective of legal certainty (the principle of legal certainty), the DMO fails because it cannot reliably predict behaviour. Legal certainty requires that legal norms provide clear guidance for action, thereby enabling actors to plan their behaviour with confidence. The DMO provides clear guidance in its mandate miners must prioritise domestic supply yet this mandate becomes meaningless due to the economic context in which it operates. Miners cannot predict with certainty that compliance will be economically viable, nor can they predict with certainty that non compliance will be effectively sanctioned. The result is legal uncertainty in its most fundamental form: the legal command is clear, yet its operation is unpredictable.[30]

From the perspective of proportionality (the principle of proportionality), the DMO fails because the burden imposed on miners (selling below production costs) is disproportionate to the public benefit sought. The principle of proportionality requires that regulatory measures must be appropriate, necessary and proportionate in the strictest sense, that is, the

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[29] Natalia Fabra and Natalia Fabra, "A Primer on Capacity Mechanisms," *Energy Economics*, 2018, https://doi.org/10.17863/cam.21790.

[30] Michael G Faure, Morag Goodwin, and Franziska Weber, "The Regulator's Dilemma: Caught between the Need for Flexibility and the Demands of Foreseeability. Reassessing the Lex Certa Principle," *Albany Law Journal of Science and Technology* 24, no. 2 (2013): 283–364.

means employed must have a reasonable connection to the objective sought. The price cap set by the DMO is appropriate for achieving affordable electricity prices, and may be necessary in the sense that there are no equally effective alternatives. However, this policy fails the strict proportionality test: the burden borne by miners (and, ultimately, the coal industry and the wider economy) is excessive compared to the benefit of slightly lower electricity prices. When miners are forced to sell at a loss, they reduce investment, postpone maintenance and, ultimately, cut production thereby undermining the energy security that the DMO is precisely seeking to protect.

From the perspective of legal effectiveness (the principle of legal effectiveness), the DMO has failed because it has not produced the compliance it was intended to ensure. Effectiveness requires that legal norms actually shape behaviour in the direction intended by the legislator. The DMO, however, has had the opposite effect: it encourages non-compliance by creating a price differential that incentivises a shift towards the export market. The higher global prices rise, the greater the incentive to circumvent the DMO, and the greater the DMO's failure to achieve its stated objectives. This is not a failure of implementation, but rather a structural flaw in the regulatory architecture itself.

Governance deficits exacerbate this legal failure.

The gap between the RUEN production limit of 400 million tonnes and actual production of 817 million tonnes highlights an implementation deficit on a massive scale. The RKAB approval process, intended to coordinate production planning, has become a source of uncertainty rather than stability. Enforcement mechanisms lack credible deterrent power. Corruption persists despite the KPK's interventions. This governance deficit demonstrates that legal reform alone is insufficient without accompanying institutional reform. The DMO requires not only new regulations but also new regulatory capacity.

Comparative analysis shows that other resource-rich countries have overcome similar challenges through dynamic pricing mechanisms. Australia employs market-based pricing through a royalty system, rather than a fixed domestic price cap.

China utilises a combination of procurement by state-owned enterprises, strategic reserves and flexible pricing. India has experimented with coal-linkage auctions and cost-plus pricing for domestic supply. The fixed cap of US$70 in Indonesia is an exception, a regulatory anachronism that has become a burden. The Indonesian Mining Experts Association (Perhapi) has proposed raising the DMO cap to US$80-90 per tonne, whilst the Indonesian Coal Mining Association (APBI) has proposed dynamically linking the DMO price to the HBA benchmark.

From a legal perspective, a dynamic pricing model is preferable as it restores proportionality between obligations and compensation, provides legal certainty through a predictable adjustment mechanism, and maintains the protective objectives of the DMO whilst accommodating market realities. APBI Executive Director Gita Mahyarani argued that "the DMO price should not be frozen for too long" and that "the government must consider a mechanism for periodic adjustments. One option is to link the DMO price to a specific percentage of the HBA". Perhapi Chair, Sudirman Widhy Hartono, also argued that "the US$70 reference price is no longer economically viable given the current state of the mining industry" and that "this price should not deviate too far from global coal market prices"

1. Dynamic pricing alone is not enough. A comprehensive reform agenda must address the various dimensions of the DMO's legal shortcomings. Firstly, price reform: replacing the fixed US$70 cap with a formula linked to the HBA (for example, the HBA minus a fixed discount), with periodic adjustments based on production costs and inflation. The government has begun to consider this option, with Minister Bahlil Lahadalia acknowledging that "production costs have risen" and that "we must be prudent so that businesses are not forced to sell at excessively low prices". However, the Director-General of Minerals and Coal, Tri Winarno, stated that "the government is still maintaining the DMO coal pricing policy and has not yet discussed price adjustments" a position that reflects the institutional inertia which has prolonged this crisis.

2. Quality specifications: an amendment to the DMO framework to include quality requirements, rather than merely volume obligations. The power cuts in June 2026 were caused by quality discrepancies, not a shortage of volume. The DMO must specify not only how much coal must be supplied, but also what type of coal with particular attention to the medium-calorific coal actually required by PLN's power stations. MEMR Regulation No. 6/2026, which mandates prior approval for coal blending, is a step in the right direction but remains reactive rather than preventative.
3. Production coordination: align RKAB approvals with RUEN production limits through an enforceable mechanism. The discrepancy between the 400 million tonne limit in the RUEN and actual production of 817 million tonnes highlights a failure in coordination that must be addressed through institutional reform. The 2026 production target of around 600 million tonnes is a step towards alignment, but this target remains flexible and dependent on domestic demand. Greater legal certainty regarding production quotas is vital for both planning and law enforcement.
4. Strengthening law enforcement: increase penalties for violations, including criminal penalties for repeat offenders. Current sanctions particularly export bans—lack credible deterrent effects as the benefits of exporting outweigh the costs of the sanctions. The government should consider increasing penalties, including the revocation of licences, criminal prosecution and fines commensurate with the economic gains derived from such violations. As noted by Yusri Usman of CERI, "fines for non compliance with the DMO remain very low" and "can still be covered by coal export revenues".
5. Anti corruption measures: strengthen the KPK's oversight of mining licences and PLN procurement. The systemic corruption exposed in the Rudy Ong Chandra case underscores the need for institutional reform that goes beyond the DMO itself. Corruption scandals in the extractive sector have led to widespread deforestation, environmental damage and enormous losses to the state. Anti-corruption measures must be integrated into the DMO reform agenda

6. Judicial review: consider a constitutional review of the DMO price cap under Article 33(3) to determine whether it constitutes a "regulatory takeover" that fails to maximise public benefit

The constitutional mandate that natural resources must be "exploited for the greatest benefit of the people" could form the basis for challenging a pricing mechanism that forces miners to sell at a loss, which ultimately undermines the sustainability of the coal industry and the energy security it is meant to support.

The theoretical implications of this research extend beyond the Indonesian context. The DMO case contributes to economic law theory by demonstrating how a static regulatory framework collapses under dynamic market conditions. The failure of the DMO is not merely a matter of poor implementation, but rather a normative inadequacy; the law itself is structurally insufficient to achieve its stated objectives. These findings challenge command-and-control approaches to the governance of natural resources in volatile commodity markets. They demonstrate that effective economic law requires adaptive mechanisms, a regulatory framework capable of adjusting to changing market conditions whilst maintaining its protective objectives.

The DMO case also contributes to the literature on regulatory governance in developing countries. The governance shortcomings identified in this study failure to control production, bureaucratic obstacles, weak law enforcement and systemic corruption are not unique to Indonesia, but are characteristic of resource-rich developing countries more broadly. Consequently, the DMO's legal failure offers broader lessons for resource-rich developing countries grappling with the tension between domestic energy security and an export-driven economy. The challenge lies not merely in designing better regulations, but in building the institutional capacity to implement them effectively.

D. Conclusion

The Indonesian DMO crisis represents a threefold legal failure: structural (the fixed price cap of US$70 created an 'export premium paradox' in which the law mandates

compliance whilst the market rewards non-compliance), governance (failure to control production, obstacles in the Annual Work and Budget Plan, weak law enforcement, and systemic corruption), and policy (reactive crisis management that has prevented fundamental price reforms). The static regulatory framework has collapsed under market volatility, proving that legal norms must adapt dynamically. Key reforms include pricing linked to the HBA, quality mandates, production coordination, enhanced law enforcement with proportionate sanctions, anti-corruption measures, and a constitutional review under Article 33(3). This case demonstrates that legal certainty, proportionality and the effectiveness of the law are essential, and that institutional capacity-building must accompany legal reform to prevent foreseeable crises.

E. Acknowledgments

None

F. Competing Interest

None

G. References

Afandi, F, Donny Yoesgiantoro, and Lukman Yudho Prakoso. "The Effect of Coal DMO Policy on National Energy Security in Supporting National Defense and Security." *International Journal of Research and Innovation in Social Science*, 2022. https://doi.org/10.47772/ijriss.2022.6610.

Agatha, Giska Viona. "Uji Beda Abnormal Retrun, Trading Volume, Dan Market Capitalization Sebelum Dna Sesudah Pengumuman Kebijakan Harga Jual DMO Batubara." *Malang: Universitas Brawijaya*, 2019.

Andi Maulana, Alfi Dinilhaq. "PLN Rushes Coal Supplies After Power Outages Hit Java." Jakartaglobe.id, 2026.

Baskoro, Firly Rachmaditya, Katsuhiko Takahashi, Katsumi Morikawa, and Keisuke Nagasawa. "Multi-Objective Optimization on Total Cost and Carbon Dioxide Emission of Coal Supply for Coal-Fired Power Plants in Indonesia." *Socio-Economic Planning Sciences* 81 (2022): 101185.

Danantara Indonesia. "Mewujudkan Swasembada Energi Berkelanjutan Yang Berintegritas, Transparan Dan Akuntabel," 2024.

Devi, Oxaria Silviana, Sri Suryaningsum, and Sutoyo. "ANALYSIS OF THE REALIZATION OF DOMESTIC MARKET OBLIGATION POLICY ON NATIONAL ENERGY SECURITY INDEPENDENCE." *Count : Journal of Accounting, Business and Management*, 2024. https://doi.org/10.61677/count.v2i2.302.

Fabra, Natalia, and Natalia Fabra. "A Primer on Capacity Mechanisms." *Energy Economics*, 2018. https://doi.org/10.17863/cam.21790.

Farber, Daniel A. "The Implementation Gap in Environmental Law." *Journal of Korean Law* 16, no. 1 (2016): 3–32.

Faure, Michael G, Morag Goodwin, and Franziska Weber. "The Regulator's Dilemma: Caught between the Need for Flexibility and the Demands of Foreseeability. Reassessing the Lex Certa Principle." *Albany Law Journal of Science and Technology* 24, no. 2 (2013): 283–364.

Grace Gandhi. "Indonesia Hikes Coal Production Quota over 600 Million Tons." tempo.co, 2026.

Hawari, Regita, and Mursyid Hasan Basri. "Proposed Solution to Optimize Production Cost in Fulfilling Domestic Market Obligations (Study Case: Coal Mining Company in Indonesia)." In *The 3rd Asia Pacific International Conference on Industrial Engineering and Operations Management*, 3858–63, 2022.

Hodijah, Siti. "An Analysis of Determinants and Policies of Indonesian Coal Export." *The Asian Journal of Professional & Business Studies* 6, no. 2 (2025): 156–69.

IEEFA. "IEEFA: Indonesia's Excess Coal Power Capacity and PLN's Debt Burden Are Blocking Their Decarbonization Pathway." ieefa.org, 2021.

"Indonesia to Lift Coal Production Quota to Over 600 Million Tons." Jakartaglobe.id, n.d.

Kefas Sidauruk. "MacroInsight - Coal Export Diversion: Limited Drag on Rupiah." www.indopremier.com, 2026.

Melati, Lena Tria, Imam Supriyadi, and Yusuf Ali. "Coal Domestic Market Obligation (DMO) Policy Implementation in

Indonesia to Achieve Energy Security." *World Journal of Advanced Research and Reviews* 16, no. 2 (2022): 369–74.

Miceli, Thomas J, and Kathleen Segerson. "Compensation for Regulatory Takings: An Economic Analysis with Applications." *(No Title)*, 1996.

Mita Amalia Hapsari, Bambang Ismoyo. "DEN Urges DMO Review as Blackouts Hit World's Biggest Coal Exporter." Jakartaglobe.id, 2026.

Muhammad Aulia Rahman, Yustinus Paat. "KPK Detains Coal Tycoon Rudy Ong in Mining Permit Graft Case." Jakartaglobe.id, 2025.

Perhapi. "Akal-Akalan DMO: Bara Untuk Cuan, Gelap Untuk Negeri." perhapi.or.id, n.d.

Pwypindonesia. "Coal Production Cuts: A Crucial Step Towards a Just Energy Transition." Publish What You Pay Indonesia, 2025.

Safitri, Titis Dyah, S Maharani, and D Narullia. "MARKET REACTIONS TO DOMESTIC MARKET OBLIGATION (DMO) COAL PRICE POLICY CHANGES: EVIDENCE FROM INDONESIA." *Jurnal Aplikasi Manajemen*, 2021. https://doi.org/10.21776/ub.jam.2021.019.02.13.

Sahu, Asish K. "THE COAL CHALLENGE IN INDIA." *International Journal of Students' Research in Technology \& Management* 3 (2015): 231–33.

Saleh, Ridwan. "DOMESTIC MARKET OBLIGATION (DMO) POLICY AND ITS IMPLEMENTATION STRATEGIES" 15 (2012): 42–58. https://doi.org/10.30556/imj.vol15.no1.2012.474.

Teuku Muhammad Valdy Arief. "Harga DMO Batu Bara Dikaji Ulang, Pengusaha Usul Naik Di Atas 80 Dollar AS." money.kompas.com, 2026.

Togi, Salman Akira, and Ima Mayasari. "Realisasi Kebijakan Domestic Market Obligation Batubara Pada Tahun 2018-2022." *Journal Publicuho* 6, no. 4 (2023): 1288–1300.