Journal Aristo (Social, Politik, Humanera) Vol. 14, No.1 (2026): January, pp. 669 - 683
Social and Political Science Faculty, Universitas Muhammadiyah Ponorogo.
p-ISSN 2338-5162 / e-ISSN 2338-5162

Regional Risks and Opportunities of Mining in the Asia-Pacific
Risiko dan Peluang Pertambangan di Kawasan Asia-Pasifik

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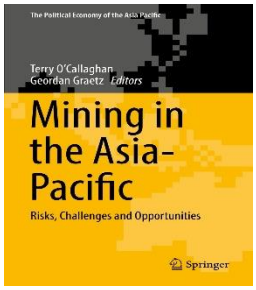
Book Profile



Book Title	:	*Mining in the Asia-Pacific: Risks, challenges, and opportunities*
Editor	:	Terry O'Callaghan and Geordan Graetz
Publisher	:	Springer
Year	:	2017
Pages	:	387
ISBN	:	978-3-319-61393-2

Send : 18 April 2025
Review : 13 May 2025
Accepted : 30 August 2025
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Introduction

The book Mining in the Asia-Pacific: Risks, Challenges and Opportunities, edited by Terry O'Callaghan and Geordan Graetz, offers a compelling and timely contribution to the study of extractive industries in one of the world's most dynamic and contested regions. Mining in the Asia-Pacific is not merely an economic activity, it is a deep political, ecological, and cultural process that shapes the trajectories of states, communities, and environments. Drawing together a wide range of contributors, the volume presents a nuanced understanding of how the mining sector operates across multiple scales: from local land-use disputes to transnational commodity chains. O'Callaghan and Graetz, both scholars from the University of South Australia, frame mining not just as an industrial operation but as a site of ongoing contestation between competing logics, developmentalism, environmentalism, sovereignty, and capital accumulation. Organized into four thematic parts, Theorizing Risk in the Mining Industry, The Major Resources, The Major Issues, and Mitigating Risk, the volume offers a comprehensive structure that guides readers from conceptual reflections to empirical case studies. This format is effective in gradually unpacking the layered nature of mining-related risks. The first section lays a theoretical foundation by

problematizing the notion of risk itself, drawing on interdisciplinary approaches from political economy, geography, and environmental studies. The middle sections delve into specific resources (such as coal, gold, and rare earths) and specific issues (including governance, Indigenous rights, and social activism). The final section turns to strategies for risk mitigation, such as regulatory reform, technological innovation, and community engagement, suggesting pathways toward more sustainable and equitable extractive practices.

Review Point

Part I, consisting of seven chapters, examines the diverse risks inherent in the mining industry, including foreign direct investment (FDI), regulatory regimes, social and business risks, resource nationalism, and mergers and acquisitions. This section begins Chapter 2, where Vlado Vivoda identifies nine key determinants of FDI in mining, such as geological potential, fiscal regimes, and political stability. While geological endowment is fundamental, Vivoda emphasizes the critical role of regulatory clarity, security of tenure, and environmental compliance in shaping investment decisions. He critiques the subjectivity of existing surveys, such as those by the Fraser Institute and Behre Dolbear, advocating for a more robust, criteria-driven evaluation method.

Although the chapter provides an essential discussion of FDI determinants, the critique remains largely descriptive and does not sufficiently interrogate structural power relations embedded in investment decision-making. Vivoda's emphasis on regulatory clarity and institutional predictability assumes a rational investor model while overlooking how global commodity super cycles, corporate lobbying, and state–capital alliances mediate flows of extractive capital in practice (Barma et al., 2012). Moreover, calls for more objective survey instruments risk privileging investor perceptions over community rights and environmental governance outcomes unless accompanied by participatory indicators that capture social conflict, land tenure disputes, and ecological liabilities (Bridge, 2008). Embedding these determinants within a comparative political economic framework would sharpen the explanatory power of the chapter.

Building on this, Chapter 3, authored by Terry O'Callaghan and Vlado Vivoda, evaluates regulatory frameworks across Indonesia, China, India, the Philippines, and Papua New Guinea. The authors identify systemic barriers such as regulatory overlap, lack of transparency, and inadequate institutional capacity as significant obstacles to attracting FDI. They propose reforms based on Stern and Holder's evaluative criteria, emphasizing streamlined approval processes and enhanced stakeholder engagement to improve governance.

While the chapter's comparative approach is commendable, its emphasis on improving FDI attractiveness risks reinforcing a neoliberal governance paradigm that prioritizes investor confidence over distributive justice and ecological security. The proposed reforms, though technically sound, appear technocratic and insufficiently address deeper issues of political settlements, rent-seeking behavior, and elite capture that characterize many resource-rich states in the Asia-Pacific (Barma et al., 2012). A stronger engagement with critical governance literature or case-specific evidence of reform outcomes could have strengthened the analysis and avoided an overly optimistic portrayal of institutional "fixes" as solutions to deeply entrenched structural problems.

Extending the discussion of risk, Chapter 4 by Daniel Feher introduces a theoretical framework for political risk, linking property rights and state authority to investment security. Feher explores how political dynamics, such as governance stability and regulatory predictability, influence the mining industry, providing a foundation for understanding broader political challenges.

Feher's framework on political risk is analytically useful but under-theorizes the asymmetrical power relationships between host states and multinational corporations. By framing risk in terms of property rights and regulatory predictability, the discussion adopts a state-centric lens that sidelines local community agency and underplays contentious politics such as indigenous resistance and resource nationalism. A more robust theoretical grounding in post-colonial political economy would reveal how investment risk is socially constructed and inadequately distributed (Rosser, 2006).

This focus shifts to social risks in Chapter 5, where Geordan Graetz and Daniel M. Franks highlight the importance of securing a social license to operate (SLO). The authors argue that community engagement is as critical as regulatory compliance in mitigating risks. Case studies demonstrate how neglecting social concerns can lead to operational disruptions, connecting the themes of governance and community involvement. The chapter rightly foregrounds the SLO concept, yet it treats it primarily as a corporate risk management tool rather than interrogating its limitations as a voluntary, non-binding framework that can perpetuate extractive logics under the guise of "participation." By failing to address power asymmetries in negotiation processes, the analysis risks romanticizing stakeholder engagement while sidestepping deeper structural questions about land rights, legal pluralism, and the role of coercion in extractive frontiers. Future work could examine whether SLO mechanisms genuinely redistribute decision-making power or merely function as a form of corporate social control (Bice & Moffat, 2014; Gehman et al., 2017).

Chapter 6, by Tom Johnson, examines resource nationalism and the concept of the obsolescing bargain, where host governments renegotiate terms with foreign investors after significant capital commitments. By contextualizing this phenomenon within the Asia-Pacific mining sector, Johnson highlights its implications for long-term contracts and investor strategies.

While Johnson's discussion of resource nationalism is timely, it risks reducing the phenomenon to contractual renegotiation dynamics without adequately situating it within the historical and geopolitical contexts that drive nationalist policy swings (Barma et al., 2012). The treatment of the obsolescing bargain theory appears overly deterministic, assuming linear bargaining power shifts without engaging with empirical cases where transnational capital maintains leverage through financial instruments, bilateral agreements, or arbitration mechanisms. A more nuanced political economy analysis could explore how global energy transitions, and the critical minerals boom complicate the resurgence of resource nationalism (Koch & Perreault, 2019; Rutland, 2022).

Eboni Tiller, in Chapter 7, explores the intersection of mining and human rights, focusing on land acquisition, labor practices, and environmental degradation. She emphasizes the importance of integrating human rights assessments into mining operations, reinforcing ethical compliance as a cornerstone of sustainable practices.

Although the emphasis on human rights is commendable, the chapter adopts a compliance-based lens that underplays systemic governance failures and the structural violence embedded in extractive regimes (Coumans, 2017; Kemp & Vanclay, 2013). The analysis could have critically examined why voluntary human rights assessments often fail to prevent dispossession or labor exploitation, especially in contexts marked by weak legal enforcement and corporate impunity (Coumans, 2017). Without interrogating the political economy of rights violations—including uneven state capacity, transnational corporate leverage, and limited recourse to remedy—the recommendations risk being aspirational rather than transformative (Ruggie, 2013).

The final chapter of Part I, by Vlado Vivoda and Geordan Graetz, ties these themes together by analyzing the political and economic implications of mergers and acquisitions (M&A) in the mining industry. The authors discuss how M&A activities reshape power dynamics and influence global resource governance, providing a strategic perspective that connects regulatory, political, and social risks. While this chapter provides an integrated analysis of M&A in the mining industry, its discussion could be critiqued for insufficient engagement with critical political economic frameworks (Bebbington et al., 2017; Bridge, 2008). The treatment of power dynamics remains largely descriptive, lacking deeper interrogation of how M&A consolidates corporate dominance

and exacerbates asymmetrical relations between multinational corporations and host states (Bebbington et al., 2017). Moreover, the analysis omits consideration of the implications for local communities and environmental governance, areas extensively discussed in the literature on resource governance and global value chains (Gereffi & Lee, 2016).

Part II, comprising six chapters, explores key resources in the Asia-Pacific region, including iron ore, coal, natural gas, rare earth elements, copper, and coal seam gas (CSG). This section provides a comprehensive analysis of these resources' economic significance, trade dynamics, and prospects, while addressing the challenges and opportunities associated with their exploitation.

The overview promises breadth but risks substituting descriptive commodity profiling for an integrated regional political economy of resource extraction (Bridge, 2017). By treating each resource in relative isolation, the section underplays cross-commodity linkages—such as how coal decline intersects with gas transition strategies, or how demand for copper and rare earths co-evolves with decarbonization policies (Overland, 2019; Sovacool et al., 2020). Moreover, “economic significance” is foregrounded without parallel metrics for social cost, ecological externalities, or governance performance, which can distort policy relevance (Bebbington et al., 2017). A more rigorous framing would benchmark each commodity against indicators of regulatory quality, conflict incidence, indigenous land overlap, and carbon intensity to assess sustainability trade-offs across the portfolio of extractives (Gilberthorpe & Papyrakis, 2015). Without such a comparative matrix, the section’s analytical value for policy or investment strategy remains limited.

Chapter 9, authored by Richard Leaver, opens this section with a focus on iron ore's strategic importance. The chapter highlights Australia's position as the leading global exporter of iron ore, delving into its historical trade patterns and the geopolitical dynamics influencing market stability. Leaver emphasizes iron ore's pivotal role in industrial development, particularly in infrastructure and steel production, and its critical contributions to the economies of the region, notably China’s rapid urbanization.

Leaver’s treatment of Australian iron ore rightly underscores scale and trade dependence, yet the discussion appears supply-side heavy and insufficiently interrogates market concentration, price formation, and the strategic behavior of major producers (e.g., oligopolistic coordination, infrastructure bottlenecks, or state-backed procurement strategies by China) (Blas & Farchy, 2021; Smith Stegen, 2015). The chapter could also have explored the vulnerability of export-dependent jurisdictions to environmental regulation shifts, carbon border adjustments, or demand volatility

under steel decarbonization scenarios (Overland, 2019). By framing iron ore as a driver of "industrial development," it risks reproducing modernization narratives without examining uneven development outcomes in producing regions or the distributive politics of royalty regimes (Perry, 2018). Linking iron ore flows to industrial policy, green steel transitions, and trade security would have yielded a sharper strategic analysis (Humphreys, 2015).

In Chapter 10, Philip Crowson examines coal's dual function as both an energy source and industrial input. The chapter discusses coal's enduring relevance, especially in emerging economies like China and India, where thermal and coking coal remain in high demand despite global shifts toward renewable energy. Crowson also addresses coal's environmental challenges, including greenhouse gas emissions, which present significant barriers to its long-term sustainability.

Crowson's argument about coal's persistence is empirically grounded but analytically conservative: it acknowledges climate constraints yet stops short of modeling transition pathways, stranded-asset risk, or the political economy of coal phase-down in dependent regions (Davidson, 2024). The treatment of "enduring relevance" could mislead if not situated against nationally determined contributions (NDCs), carbon pricing trajectories, just transition policies, and capital reallocation pressures emerging from coal retirement debates (Liu et al., 2022). Additionally, the chapter might overgeneralize emerging-economy dependence; subnational and province-level analyses show highly divergent coal reliance, fuel substitution patterns, and air-quality-driven regulatory shifts (Wang et al., 2020). A deeper integration of life-cycle emissions, remediation liabilities, and comparative levelized cost trends versus lower-carbon alternatives would strengthen the long-term sustainability assessment (Jaramillo et al., 2007).

Ming Hwa Ting, in Chapter 11, turns attention to rare earth elements (REEs), emphasizing their indispensability in high-tech industries, renewable energy, and defense applications. Ting explores China's near monopoly on REE production and its impact on global supply chains, highlighting the geopolitical tensions and trade dependencies that arise from this dominance. The chapter also discusses efforts to diversify supply chains and the potential role of recycling in reducing dependency. The chapter effectively identifies strategic vulnerabilities tied to Chinese dominance, but it risks essentializing "monopoly" without unpacking the processing and separation stages where bottlenecks truly crystallize. Supply diversification is treated largely as a policy aspiration; missing is a sober cost–risk assessment of alternative deposits (grade, radioactivity, community opposition), ESG requirements for new mines, and market stickiness in refining capacity. Recycling is mentioned but not critically evaluated in terms of technological

readiness, material recovery rates, and circular economic incentives. A tighter link to critical minerals strategy debates—especially under energy transition demand growth and export control scenarios—would improve policy relevance (Srivastava, 2023).

Natural gas, as a cleaner energy alternative, is the subject of Chapter 12, authored by Vlado Vivoda. The chapter highlights the Asia-Pacific region's role in liquefied natural gas (LNG) exports, focusing on Australia and Qatar as major global players. Vivoda examines the infrastructure and geopolitical challenges tied to LNG trade, such as the high costs of transportation and market volatility, and discusses the increasing role of natural gas in transitioning to low-carbon energy systems.

Labeling natural gas, a “cleaner” transition fuel demands greater qualification: lifecycle methane leakage, liquefaction emissions, and lock-in effects from long-dated LNG infrastructure complicate its decarbonization credentials (Howarth & Jacobson, 2021). The chapter’s emphasis on export logistics could be strengthened by incorporating demand-side uncertainty from accelerated renewables deployment, hydrogen substitution, and evolving carbon accounting rules in import markets. Furthermore, geopolitical analysis would benefit from examining contract indexation (oil-linked vs hub-based pricing), destination flexibility, and the bargaining leverage of buyers’ consortia (Van de Graaf et al., 2020). Without critically engaging these transition and governance uncertainties, the narrative risks overstating gas’s durability in low-carbon pathways.

Chapter 13, again authored by Philip Crowson, focuses on copper, a metal essential for electrification, urbanization, and infrastructure development. Crowson examines the drivers of copper demand in the Asia-Pacific, particularly in the context of expanding renewable energy projects and smart technology adoption. The chapter also addresses the challenges of meeting global copper demand amid declining ore grades and rising production costs.

Crowson correctly links copper to electrification, yet the treatment of supply constraints is narrowly geological, and cost focused. Declining ore grades interact with water intensity, energy inputs, tailings risk, and community opposition—dimensions that complicate production scalability but receive limited scrutiny (Mudd & Jowitt, 2018). Demand projections would be more robust if stress-tested under different energy transition scenarios (e.g., grid intensification vs distributed systems, material substitution, recycling efficiency gains). Absent is a governance discussion of permitting delays, ESG disclosure norms, and national resource strategies competing for investment capital (Sulkowski & Jebe, 2022). Integrating circular economy models and secondary recovery potential could also temper alarmist deficit narratives.

The final chapter (chapter 14) of this part, authored by Cristelle Maurin, explores coal seam gas (CSG) as an emerging energy resource in the region. The chapter covers the technical aspects of CSG extraction, its economic potential, and its growing role in energy diversification strategies. Maurin also highlights the controversies surrounding CSG development, including environmental concerns such as groundwater contamination and the social impacts on local communities.

Maurin's balanced acknowledgment of technical promise and controversy is useful, yet the environmental risk discussion remains surface-level. CSG's cumulative impacts on aquifer connectivity, fugitive methane, induced seismicity, and land fragmentation require integration with hydrogeological modeling and long-term monitoring regimes that are rarely enforced in practice (Jackson et al., 2014). The political ecology of rural land access—particularly farmer resistance and indigenous land claims—could have been explored to show how subnational conflict shapes project timelines and cost structures (Van Leeuwen & Van Der Haar, 2016). Finally, the chapter might compare regulatory responses across jurisdictions (e.g., baseline testing, adaptive management triggers) to derive lessons for governance under uncertainty.

Part III, consisting of six chapters, addresses critical issues shaping the mining industry's impact on sustainability, corporate social responsibility (CSR), climate change, and the broader social and environmental consequences of mining. This section highlights the interconnected challenges that must be addressed to achieve sustainable growth in the Asia-Pacific region.

The framing of "sustainable growth" risks conceptual ambiguity: does the volume of extraction grow sustainably, or does sustainability require capping or transforming extractive activity? The section's ambition to integrate CSR, climate, and social impact is welcome, but it is unclear whether the chapters provide a systems framework that can evaluate trade-offs across scales (project, basin, national policy, global climate budget). Without clarifying metrics—GHG intensity, biodiversity loss, social conflict incidence—the claim of "interconnected challenges" reads as thematic rather than analytical. A more explicit sustainability typology or decision matrix would improve coherence and policy uptake (Shawoo et al., 2023).

Chapter 15, authored by Glen Corder, lays the foundation by examining mining's role in sustainable development through frameworks such as the Global Mining Initiative (GMI) and the International Council on Mining and Metals (ICMM). The chapter emphasizes the importance of stakeholder engagement and the concept of a social license to operate (SLO), presenting a case study from the Philippines that illustrates both successes and persistent challenges in aligning mining operations with sustainable development goals. This discussion sets the stage for localized issues explored in subsequent chapters.

Corder's emphasis on industry-led frameworks such as GMI and ICMM reflects a broader trend where voluntary governance approaches often overshadow binding regulatory mechanisms, raising concerns about enforceability and accountability. While the inclusion of the Philippine case study adds empirical relevance, its claims of achieving a social licence to operate (SLO) would be more convincing if supported by measurable indicators—such as reductions in conflict, improvements in environmental outcomes, or enhanced local revenue retention. Absent these metrics, assertions of "success" risk being anecdotal. Furthermore, aligning SLO with the Sustainable Development Goals (SDGs) necessitates an analytical bridge between corporate initiatives and governance instruments; recent research underscores the importance of mapping SDG targets (e.g., 8, 12, 15, 16) to operational performance indicators in mining contexts.

Chapter 16, written by Tamsin Scholz, focuses on artisanal and small-scale mining (ASM), an activity with significant economic and social contributions but also profound environmental and health challenges. Through examples from Indonesia and the Philippines, Scholz highlights issues such as mercury contamination, deforestation, and community displacement. She advocates for integrating ASM into formal frameworks to mitigate these risks and align its practices with broader developmental objectives.

The call to formalize ASM is widely echoed in policy debates, yet the chapter appears to underplay the transaction costs, governance fragmentation, and political resistance that routinely derail formalization schemes. Many ASM sites operate in legal gray zones shaped by patronage networks, criminal intermediaries, and fluctuating commodity prices; integrating them into state regulatory systems requires more than technical licensing. The discussion would benefit from differentiating between gold, gemstone, and construction mineral ASM, as risk profiles and market structures differ sharply. Finally, proposals to mitigate mercury use and environmental harm require financing mechanisms and supply chain traceability—issues that deserve deeper, implementation-level analysis.

The theme of corporate responsibility is explored in Chapter 17 by Terry O'Callaghan and Belinda Spagnoletti, who analyze how transparency and community engagement influence corporate reputation and sustainable practices. This chapter transitions seamlessly into Chapter 18, authored by Vigya Sharma, which addresses climate change and the mining industry's dual responsibilities: reducing greenhouse gas emissions and adapting to climate-related risks. Sharma emphasizes renewable energy integration and energy efficiency as essential strategies for ensuring the sector's long-term viability.

Although pairing transparency/engagement with climate responsibility is conceptually appealing, the transition glosses over tensions between reputational initiatives and emissions-intensive production portfolios. Disclosure regimes (e.g., TCFD, Scope 3 accounting) materially affect how climate risk and performance are measured; without engaging these frameworks, the discussion risks remain normative. Sharma's mitigation strategies—renewables and efficiency—are necessary but insufficient absent analysis of mine electrification constraints, financing models, carbon pricing exposure, and metallurgical process innovation. Moreover, adaptation is treated generically; site-specific climate hazards (heat stress, water scarcity, extreme weather damage to tailing facilities) require differentiated strategies and regulatory oversight.

Infrastructure, a critical enabler of mining activities, is the focus of Chapter 19 by Tom Johnson. The chapter highlights the importance of transportation networks and energy supply systems, emphasizing how shared infrastructure projects can benefit both mining operations and local communities. Johnson discusses the potential for these projects to create synergies between industrial efficiency and social progress, underscoring their role in sustainable development.

Johnson's optimism about shared infrastructure obscures contentious distributional politics: who pays, who gains access, and who bears environmental displacement? Large-scale corridors frequently privilege export routes over local mobility, and power grids serving mines may bypass rural communities unless mandated by policy. The chapter would be stronger if it evaluated governance instruments—public–private partnerships, benefit-sharing agreements, tariff structures—that condition whether co-use materializes. Empirical evidence comparing "enclave" versus "integrated corridor" models across Asia-Pacific cases could test the claim that infrastructure synergies translate into measurable social development outcomes.

Finally, Chapter 20, authored by Corinne Unger, examines legacy issues, specifically abandoned mines, which pose long-term environmental and social risks. Unger advocates for robust mine closure planning and rehabilitation strategies to minimize these impacts. She emphasizes the importance of stakeholder involvement and comprehensive policies to ensure abandoned sites are managed responsibly and sustainably.

Unger addresses an underexamined but escalating liability area, yet the policy treatment underestimates the scale of unfunded closure obligations and the difficulty of enforcing post-closure performance in jurisdictions with weak monitoring capacity (Laurence, 2006). Financial assurance mechanisms (bonds, trust funds, insurance pools) and progressive rehabilitation benchmarks are central to credible closure regimes but receive limited elaboration (Laurence, 2006). Additionally, legacy sites often intersect with indigenous land claims, acid mine drainage,

and biodiversity restoration challenges that require multi-decade governance architectures beyond corporate life cycles (Johnson & Hallberg, 2005; Mazzeo, 2018). Comparative lessons from jurisdictions with strong closure legislation could sharpen the policy recommendations (O'Faircheallaigh, 2015).

The final part of this edited book, authored by Terry O'Callaghan and Vlado Vivoda, introduces decision-making tools in a table format to help investors manage risks in the mining, oil, gas, and infrastructure sectors. It provides practical guidance by categorizing risks into dimensions such as geological profitability, fiscal regimes, regulatory stability, operational challenges, and social and environmental factors. Central tools include the Mining Company Investment Decision-Making Tool, which emphasizes land access, environmental obligations, and stakeholder engagement, and the Oil and Gas Company Investment Decision-Making Tool, addressing sector-specific risks like market volatility and infrastructure dependencies. The Infrastructure Investment Decision-Making Tool highlights shared infrastructure's role in reducing costs and fostering sustainable development.

The structured tools add practitioner value, yet their risk taxonomies appear static and may underrepresent dynamic, compounding, or cascading risks (e.g., climate policy shocks intersecting with social conflict or water scarcity). Weighting schemes are unclear: are social and environmental risks quantitatively comparable to fiscal terms, and on what basis? Without transparency on data sources, scoring methodology, and sensitivity testing, users may overinterpret heuristic matrices as decision-grade analytics. Incorporating scenario analysis, adaptive triggers, and probabilistic ranges would improve robustness. Moreover, community legitimacy and human rights metrics should sit alongside profitability, not downstream as residual factors.

This edited volume boasts several commendable features. Its strength lies in its interdisciplinary analysis, its forward-looking focus on emerging issues such as climate change and sustainable development, and its provision of practical tools for industry practitioners. The inclusion of real-world case studies further enhances its relevance and applicability. However, the book is limited by the exclusion of key regions like Africa and South America, insufficient attention to gender and health issues, and a reliance on technical language that may alienate non-specialist readers. These limitations indicate areas for improvement in both accessibility and scope.

The editors' ambitious effort to bring together diverse perspectives within a single volume is praiseworthy. The book offers a nuanced understanding of the mining industry's complexities, making it invaluable for specialists while also highlighting opportunities to broaden its accessibility. For readers in academia or the mining sector, Mining in the Asia-Pacific provides a wealth of insights, particularly for those focused on governance, risk management, and sustainability. Nonetheless, those seeking a more global perspective may find it beneficial to complement this text with works addressing neglected regions and issues. Simplifying the technical discussions could further expand its appeal, making it an essential read for policymakers, activists, scholars, and others navigating the mining industry's challenges and opportunities.

Conclusion

Overall, this book offers a comprehensive, interdisciplinary analysis of the region's mining industry dynamics, encompassing investment risks, regulatory frameworks, resource nationalism, and sustainability. The book successfully integrates economic, political, and social perspectives while providing practical tools for industry decision-making. However, its analytical depth is often constrained by a descriptive and technocratic approach that overlooks power structures, social conflicts, and historical inequalities shaping the extractive sector.

Each part of the book makes a valuable contribution—from unpacking risk and investment dynamics in the early chapters to discussing key resources and sustainability challenges in later sections. Nonetheless, several chapters tend to reproduce dominant narratives that prioritize investor interests and market efficiency, rather than critically interrogating the underlying assumptions of extraction-based development models. The adoption of neoliberal frameworks lacks sufficient critical reflection on the unquantified socio-ecological impacts they often entail.

While the book presents relevant case studies and practical risk assessment tools, several limitations are worth noting: the lack of geographical coverage beyond the Asia-Pacific (particularly Africa and South America), insufficient attention to gender and health issues, and the use of technical language that may hinder accessibility for non-specialist readers. Additionally, some chapters miss the opportunity to connect their analyses to global developments such as the energy transition, industrial decarbonization, and post-extractive governance.

In this regard, Mining in the Asia-Pacific constitutes a significant contribution to contemporary mining studies, especially for academic readers and professionals in the extractive sector. However, to gain a more holistic and critical understanding, readers are encouraged to complement this volume with literature that explores Global South perspectives, environmental

justice, and political resistance to extractivism. Transforming the mining sector toward sustainability requires more than technocratic instruments—it demands a fundamental rethinking of the development models that underpin it.

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