Ilomata International Journal of Social Science
P-ISSN: 2714-898X; E-ISSN: 2714-8998
Volume 6, Issue 4 October 2025
Page No. 1268-1283

Geopolitical Influences in Indonesia's Nickel Industry

Ainul Mutmainnah Mulyono[1], R. Dudy Heryadi[2], Akim[3]
[123]Universitas Padjadjaran, Indonesia
Correspondent: ainul23001@mail.unpad.ac.id[1]

Received : June 26, 2025
Accepted : July 30, 2025
Published : October 31, 2025

Citation: Mulyono, A.M., Heryadi, R.D., & Akim. (2025). Geopolitical Influences in Indonesia's Nickel Industry. Ilomata International Journal of Social Science, 6(4), 1268-1283.

https://doi.org/10.52728/ijss.v6i4.1843

ABSTRACT: This study analyzes Indonesia's strategic role in the global nickel industry and its implications for geopolitical dynamics, particularly in the context of the rivalry between the United States and China in the electric vehicle battery sector. Despite its possession of the world's largest nickel reserves, Indonesia faces considerable challenges due to domestic policies, including the prohibition of nickel ore exports and the preponderance of Chinese investment. The enactment of the U.S. Inflation Reduction Act (IRA) has further exacerbated the already complex situation in Indonesia by imposing restrictions on subsidies for battery materials, thereby limiting their availability to those sourced exclusively from official U.S. trading partners. This research utilizes a qualitative approach and a literature study to reveal that the Republic of Indonesia is currently confronted with a complex geopolitical dilemma. It is imperative to implement a hedging strategy to ensure the maintenance of balanced relations with both major powers while concurrently expanding strategic partnerships with other nations. The findings offer policy insights that could be used to strengthen Indonesia's role in the global clean energy supply chain.

Keywords: Geopolitics, Nickel, Indonesia, Electric Vehicle Batteries, Hedging Strategy.

INTRODUCTION

Nickel is a critical mineral that has a vital role in supporting the global energy transition, particularly due to its use in lithium-ion batteries for electric vehicles (EVs) and other clean energy technologies (Khalil & Broughel, 2025). According to a 2024 report from the US Geological Survey, world nickel resources are expected to exceed 350 million tons, with global mine production projected to increase from 3.27 million tons in 2022 to 3.6 million tons in 2023. With abundant nickel wealth, Indonesia is capable of becoming a major player in the EV battery industry (Susanti, 2024). Demand for nickel is expected to continue increasing significantly in the coming decades, driven by the rapid growth of electric vehicles and the need for sustainable energy storage solutions. With control of around 52% of the world's nickel reserves, Indonesia is strategically positioned as one of the leading players in the global nickel industry (Radhica & Wibisana, 2023). However, the Indonesian nickel industry also faces risks in global trade, as its nickel policies reflect not only an economic strategy but also a broader geopolitical agenda (Wijaya

& Jones, 2025). Although numerous studies have explored the Indonesian nickel industry, there is a lack of research specifically addressing the impact of geopolitical factors on this sector. Most existing studies focus on Indonesia's nickel down streaming policy and its impact on bargaining power (Marwanto et al., 2024), the effect of nickel on the Indonesian economy (Qaseem, 2023), and China's influence on Indonesia's nickel industry (Camba, 2021). These studies tend to assess economic and trade dimensions without thoroughly examining the broader geopolitical dynamics, especially in the context of great power rivalry. While some research has acknowledged geopolitical pressures, they are often limited to specific issues like trade disputes, rather than analyzing Indonesia's strategic positioning between major powers such as China and the United States. Consequently, there remains a significant gap in the literature concerning how Indonesia navigates its geopolitical challenges in the nickel sector amid global energy transitions and strategic competition.

Indonesia's natural resource nationalism has strengthened due to domestic political conditions and global economic shifts, indicating greater control over its natural resources especially in the mining sector—facilitated by regulatory reforms and strategic negotiations with foreign investors (Winanti & Diprose, 2020). Global companies are actively seeking to diversify their supply chains to reduce dependence on China's EV industry. In this context, Indonesia emerges as a promising alternative, offering a strategic option for such diversification efforts (Pandyaswargo et al., 2021).

The existing literature highlights Indonesia's role in the global supply chain and examines the various impacts of its nickel resource nationalism policy. Indonesian nickel can significantly affect the economy by enhancing the added value of exports (Santoso et al., 2023). However, the Indonesian nickel industry—particularly through its nickel ore export ban policy—has sparked tensions in international trade relations. As a result, the European Union has challenged Indonesia's policy at the World Trade Organization (WTO) (Reinpal et al., 2023). Actually, the research already explains the geopolitical pressures that have arisen, but it focuses on disputes with the European Union. Meanwhile, this research will focus primarily on major economic powers, such as China and the United States, as well as how Indonesia positions itself within this geopolitical phenomenon.

While previous studies have examined Indonesia's nickel industry from economic and political economy perspectives, there remains a lack of comprehensive analysis explicitly linking the sector to broader geopolitical dynamics. Some works, such as Wijaya & Jones, (2025) have begun to explore the political economy of Indonesia's nickel strategy within the context of global power dynamics; however, these analyses do not fully explore the implications of Indonesia's positioning amid the strategic rivalry between the United States and China, particularly in relation to critical mineral supply chains for clean energy technologies. This study diverges from previous approaches by integrating geopolitical theory and focusing specifically on how Indonesia's nickel industry is affected by, and responds to, global geopolitical pressures. By addressing this gap, the research contributes a novel perspective that bridges the intersection of resource management, international trade, and strategic diplomacy within the evolving global energy transition. This study aims to analyze Indonesia's strategic role in the global nickel industry within the context of current geopolitical tensions and to provide practical insights for policymakers to manage risks while maximizing Indonesia's potential benefits.

This study will comprehensively link the Indonesian nickel industry to global power strategies and the struggle for hegemony in the battery industry. This study aims to fill the existing knowledge gap and provide practical insights to guide policymakers in managing emerging risks related to the Indonesian nickel industry while leveraging its potential benefits. The primary objective of this research is to examine Indonesia's strategic role in the global nickel industry and its implications for geopolitical dynamics and power struggles in the electric vehicle battery sector, particularly in the context of competition between the world's major powers and the global energy transition.The findings of this research will provide a comprehensive understanding of Indonesia's strategic position in the global nickel supply chain, offer insights into the geopolitical implications of its domestic mineral policies, and contribute to policy recommendations for enhancing Indonesia's role in the global clean energy sector. The primary objective of this research is to examine Indonesia's strategic role in the global nickel industry and its implications for geopolitical dynamics and power struggles in the electric vehicle battery sector, particularly in the context of competition between the world's major powers and the global energy transition.

The findings of this research aim to provide a comprehensive understanding of Indonesia's strategic position in the global nickel supply chain and reveal the geopolitical implications of its domestic mineral policies. To maximize societal and policy relevance, this study also offers actionable recommendations, particularly in the areas of trade diversification and investment governance, to strengthen Indonesia's role in the global clean energy transition and enhance its resilience amid geopolitical uncertainties.

Geopolitics is the study of how geographical factors influence political power and the dynamics of international relations (Petrović & Ostojić, 2025). This analysis examines how geographical elements, including the location of a region, the availability of natural resources, and physical boundaries, influence the dynamics of political power, as well as the potential for conflict between countries (Obaidullah & Howlader, 2025). In this context, geopolitics also encompasses the process of territorialization, which refers to efforts to control, own, and manage natural resources and means of production, ultimately shaping political identity and influencing how a region is represented within power relations (Palle, 2021). Geopolitics also has a broad impact on the dynamics of international trade, as global tensions can disrupt the energy supply chain (Ali et al., 2025).

In addition, geopolitical tensions can also trigger sharp price fluctuations. To maintain stability, many developing countries opt to balance the influence of major powers by implementing hedging strategies, which involve maintaining a neutral and flexible position without fully siding with either party (Al Amin, 2025). The main objective of the hedging strategy is to protect and support national interests, not only as a form of risk mitigation in the face of uncertainty, but also as an instrument to strengthen the national position and maintain stability, which is in line with the direction and national interests of a country (Kusumadewi & Wiswayana, 2024). This strategy focuses on maintaining a balance between collaboration and deterrence by interacting with several major powers at once, without committing exclusively to any of them. Its objective is to safeguard national security, uphold regional stability, and prevent overreliance on any single country, while retaining the flexibility to adapt to different circumstances (Mubah, 2019). For Indonesia, applying a hedging strategy in the nickel sector requires concrete policy measures, such as diversifying foreign investment sources, strengthening regulatory frameworks for investment governance, and negotiating bilateral agreements that reduce vulnerability to external pressures.

Embedding these actions within a broader geopolitical strategy could help Indonesia sustain its position in the global clean energy transition while maximizing long-term economic and strategic benefits.

METHOD

This research employs a qualitative method with a descriptive approach, involving the collection, analysis, and interpretation of comprehensive narrative and visual data to gain insights into the phenomenon and to gain a deeper understanding of the event (Bakry, 2023), and to gain insights into the phenomenon of Indonesia's nickel diplomacy. Specifically, it seeks to understand how nickel, as a strategic resource, influences Indonesia's geopolitical strategies and international relations, particularly in the context of global competition for critical minerals.This method is suitable for this research because it allows researchers to discern the meaning behind the presented data. In supporting this research, the data collection techniques used are as follows:

1) Literature Study: Researchers utilize previous research, including journal articles and books, to support the insights presented in this research.
2) Researchers collect data based on primary documents, namely original documents written by individuals who have direct access to the information they describe (Webb & Webb, 2010) as well as secondary documents that refer to primary documents or analyze primary documents related to the topic in this study.
3) Internet-based Research: Researchers utilize the internet to gather information on research topics, frequently accessing official information, statements, laws and regulations, reports, and various policy memoranda through government websites (Lamont, 2015).

In this study, the author also uses data analysis techniques, namely by reducing or summarizing the data through the selection of key points for discussion. The collected data is then constructed in the form of reflections and descriptions. The data collection involves systematically identifying and reviewing scholarly articles, reports, and case studies using academic databases such as Google Scholar and Scopus. Keywords such as "geopolitics," "nickel," "Indonesian nickel," "hedging strategy," and "nickel downstream" are used to locate relevant literature. Finally, the researcher draws conclusions based on the data previously presented in a clear and detailed manner.

RESULT AND DISCUSSION

The following table summarizes 10 selected articles from the past five years (2020–2025), sourced from Google Scholar and Scopus. These studies were selected based on their direct relevance to the research objective, which examines the geopolitical implications for critical mineral supply chains. Each entry identifies key findings, methodologies, and their contribution to understanding the geopolitical dynamics that shape access, control, and strategic interests surrounding critical minerals.

Tabel 1. Literature Review

No.	Author(s) & Year	Title	Key Findings	Methodology
1	(Müller, 2023)	The 'new geopolitics' of mineral supply chains: A window of opportunity for African countries.	The changing geopolitical landscape is transforming global mineral supply chains, positioning Africa to move beyond being merely a raw material exporter by developing its mineral processing industries—supported by international interest, improved governance, and regional integration efforts, such as the AfCFTA—to play a more strategic role in the green energy transition.	Qualitative analysis
2	(Lin & Zhang, 2025)	Geopolitics of renewable energy development: The role of energy metals	Countries like China have emerged as dominant players in this sector, gaining substantial geopolitical influence through their control over key energy metals and renewable technologies.	Quantitative Analyses
3	(Wang et al., 2023)	Assessing the supply risk of geopolitics on critical minerals for energy storage technology in China	Key aspects such as political stability, effective governance, regulatory frameworks, the rule of law, and efforts to combat corruption all play a significant role in ensuring a secure and reliable nickel supply.	Quantitative analysis
4	(Smith, 2023)	Geopolitical realities of the energy transition supply chain: energy security risks and opportunities	Securing critical minerals for electric vehicle (EV) production is challenging due to the limited and concentrated global supply chains, with key materials such as lithium, cobalt, and copper sourced from only a few countries.	Qualitative analysis
5	(Saadaoui et al., 2025)	Ensuring the security of the clean energy transition: Examining the impact of geopolitical risk on the price of critical minerals	Geopolitical tensions have a significant impact on nickel prices, primarily by disrupting supply chains and creating uncertainty for investors.	Quantitaive analysis

6	(Ursache, 2023)	Critical Materials Raw as Leverage in Global Geopolitics	To lessen the impact of geopolitical pressures, a country can take several strategic steps—such as expanding domestic production, promoting recycling and circular economy initiatives, and investing in research and innovation to discover alternative materials and boost the efficiency of resource use.	Qualitative analysis
7	(Noussan et al., 2021)	The Role of Green and Blue Hydrogen in the Energy Transition—A Technological and Geopolitical Perspective	Technology and renewable resources are now strategic assets globally, with countries and private companies competing to take the lead in technological mastery and market competitiveness.	Literature Review
8	(Dogan et al., 2021)	Analyzing the impacts of geopolitical risk and economic uncertainty on natural resources rents	Developing countries with high resource revenues need to reduce geopolitical uncertainty through regulatory reform and long-term planning.	Quantitative analysis
9	(Oliveira et al., 2020)	China's Belt and Road Initiative: Views from the ground	The geopolitical conflict between China and the United States is part of a broader strategic competition, in which the BRI is one of the instruments used to challenge US dominance.	In-depth fieldwork and a mixed-methods
10	(Yuniarto et al., 2024)	The Role of Geopolitics on Economic Growth in Indonesia	The strategic position of the Indonesian archipelago offers significant advantages for trade, tourism, and resource management, positively impacting economic growth.	Qualitative analysis

The analysis of the literature review highlights that geopolitical factors and mineral resources—particularly critical minerals—have a significant relationship that shapes global interactions. The reviewed literature makes it clear that geopolitics plays a crucial role in determining the dynamics of the critical mineral industry, especially in terms of supply, pricing, and the bargaining power of producing countries. Overall, the world is entering a new phase marked by a more collaboration-based mineral supply chain. Issues such as strategic independence, sustainable governance, and industrial development have come into focus, as countries strive to balance economic interests with geopolitical security considerations (Müller, 2023). In this context, countries with abundant reserves including Indonesia and several African nations—face both

significant opportunities and challenges in playing a strategic role in the emerging global mineral economy. To optimize the potential of their resources in a sustainable and sovereign manner, coordinated and robust policies, along with cross-regional collaboration, are essential.

Meanwhile, research conducted by Wang et al. (2023) shows that major nickel-supplying countries—such as Indonesia, the Philippines, and Brazil have governance indices that demonstrate positive trends, along with relatively low levels of supply risk. Geopolitical factors affecting nickel processing are highly dependent on political stability, government effectiveness, regulatory quality, law enforcement, and efforts to control corruption in each country. In general, more stable political and social conditions in these countries also reduce the potential for disruptions in the nickel supply chain. However, it remains necessary to monitor the sustainability of political dynamics and policy changes in major supplier countries to ensure long-term supply security.

In the face of increasingly complex global geopolitical dynamics, Ursache (2023) exemplifies the European Union's strategy for diversifying critical raw material supply sources by strengthening all stages of its value chain. This effort includes increasing domestic production, optimizing recycling processes, and processing raw materials within the European Union. Within this framework, countries need to form strategic alliances with like-minded partners through critical raw materials communities, strengthen the role of the World Trade Organization (WTO), expand free trade agreements, and promote sustainable investment. These efforts should also be accompanied by the implementation of policies to counter unfair trade practices.

Meanwhile, Saadaoui et al. (2025) highlight that geopolitical threats have a greater impact on mineral prices than actual measures such as sanctions or export bans, because such threats generate significant uncertainty, causing investors and market players to become concerned and hesitant to invest. As a result, mineral supply chains may be disrupted, potentially leading to greater scarcity and sharper price increases. On the other hand, if the event involves actual action, the impact tends to be more limited, as market players can adjust immediately. Research indicates that markets typically respond more strongly to threats than to actions, particularly for commodities such as nickel, copper, and tin. As a result, the fear of a 'possibility' often has a greater impact than the event itself.

Furthermore, regarding the link between mineral availability and electric vehicles (EVs), one of the biggest challenges is the limited and geographically concentrated supply chain. Critical minerals such as lithium, cobalt, and copper are primarily sourced from a small number of countries, creating a high dependency on specific regions. Meanwhile, China's dominance in processing and manufacturing critical minerals and EV batteries gives it a significant geopolitical advantage (Smith, 2023). This further complicates global efforts to diversify and secure supply chains.

Although Western countries have begun investing in domestic production and strategic partnerships to reduce their dependence on China, global supply capacity remains insufficient. Another challenge is the difficulty of building supply chains that are not only economically resilient but also environmentally friendly and sustainable. To address this challenge, global collaboration and coordinated strategic management are necessary to strengthen supply resilience and accelerate transition to a net-zero economy. In this context, climate change issues can also

serve as a meeting point for diplomatic cooperation, even as general geopolitical tensions persist.

In addition, Lin & Zhang (2025) also showed that to reduce geopolitical pressure in the development of renewable energy, a series of comprehensive strategies is necessary. One crucial step is to diversify the supply sources of critical energy metals. This effort aims to strengthen long-term energy security. In addition, build strategic partnerships with other countries for more profitable trade activities, while maintaining supply stability and avoiding conflicts (Noussan et al., 2021). Additionally, build strategic partnerships with other countries to facilitate more profitable trade activities, while maintaining supply stability and avoiding conflicts (Dogan et al., 2021). Meanwhile, countries with limited resources should prioritise managing economic growth and implementing institutional reforms.

Furthermore, the conflict between the United States and China, particularly related to China's increasingly assertive geopolitical ambitions through initiatives such as the Belt and Road Initiative (BRI), is also a significant concern, including for ASEAN member countries. ASEAN countries face challenges in maintaining regional sovereignty and stability due to intense competition and influence (Oliveira et al., 2020). Thus, ASEAN countries must be able to balance the economic interests of Chinese investment with political and security pressures from the United States. To that end, in the case of Indonesia, Yuniarto et al. (2024) stated that ASEAN regional cooperation and solid bilateral relations with neighboring countries play an important role in promoting sustainable and inclusive economic development.

According to the literature review, a country's geographical position also has an important influence on the dynamics of international relations. Indonesia is one such example. As an archipelagic nation, Indonesia is strategically positioned to facilitate international trade routes. Indonesia is also blessed with abundant natural resources, including nickel. Indonesia's abundant nickel reserves, coupled with its strategic geographical location, make its role in global nickel trade highly crucial. Moreover, nickel has become a critical topic due to the increasing global demand from various industries, such as stainless steel and batteries for electric vehicles (EVs). The demand for EVs comes from various countries around the world, including China and the United States. Given the presence of these two major powers in the industry, Indonesia's involvement requires careful consideration, especially considering the competition between the two nations in the EV sector. The competition between the United States and China, which various experts view as a "New Cold War," has a significant impact on regional stability. Therefore, it indicates that Indonesia has considerable potential, particularly in terms of its natural resources; however, it can also raise concerns due to the influence of major powers seeking to control the routes and resources for their interests.

Nickel has become one of the most strategic metal commodities amid the global shift towards a more environmentally friendly economy. In addition, global demand for nickel is also increasing, as nickel is a key component in battery production and stainless-steel manufacturing, as well as the rapid advancement of electric vehicle (EV) technology and renewable energy sources (Susanti, 2024). As a country with the largest nickel reserves and production in the world, Indonesia has a great opportunity to become a major player in the electric vehicle battery supply chain. In the context of the rivalry between China and the United States, Indonesia's geopolitical position is becoming increasingly strategic and attractive for both countries. Indonesia's geographical

proximity to China and close ties in the region's geopolitical axis make it easier for China to access Indonesia's nickel resources, which are the main raw material for electric vehicle batteries (Rosmayanti, 2023).

When Indonesia banned nickel ore exports in 2020, China assumed a major investor role in Indonesia's nickel sector, particularly through the establishment of smelting plants and processing facilities (Setiani et al., 2024). In 2023, Chinese investment inflows into Indonesia totalled US$5.6 billion, which also shows that investment figures have surged over the past 10 years during Joko Widodo's administration (Singgih, 2024). Therefore, China becomes a major player in Indonesia's nickel industry, as it controls Indonesia's nickel processing and refining technology (Agung & Adi, 2022).

China's dominance in the EV industry, driven in part by its control of Indonesia's nickel sector, poses a threat to long-established automotive powerhouses such as Japan, Western Europe, and the United States, with the potential to replace their positions through technological advancements and control of the global supply chain. In response to this challenge, regions such as the European Union and the United States have begun implementing various strategic policies, including the Net Zero Industry Act, Critical Mineral Act, and Inflation Reduction Act, aimed at reducing dependence on EV supply chains controlled by China (Barizi & Triarda, 2023). These policies reflect growing geopolitical concerns regarding the security and independence of clean energy supplies in the future.

One of the above policies that has affected Indonesia's nickel potential is the Inflation Reduction Act (IRA). This law offers substantial incentives in the form of tax credits for electric vehicles, but only for battery raw materials sourced from official U.S. trading partners—a requirement that Indonesia has not yet fulfilled. Furthermore, the IRA subsidies also exclude minerals produced by companies with more than 25 per cent ownership by entities considered "foreign and unsettling," a designation aimed at Chinese companies (Lu, 2024). It presents an additional obstacle for Indonesia, given the significant dominance of Chinese investment in its nickel industry.

The new tariffs imposed by the United States are now targeting various types of Indonesian exports, from textiles, electronics and automotive components. Although important commodities such as nickel and bauxite are exempt from the policy, the message implied by this policy is quite straightforward and worrying: market access to the United States can no longer be considered certain. This condition is expected to increase Indonesia's dependence on its most significant and most accessible trading partner, namely China.

Conversely, China is adjusting to the rapidly changing dynamics of global trade. In response to U.S. tariffs, Beijing has imposed 34% import duties on several U.S. imports and tightened export regulations on several strategic raw materials (Rakhmat, 2025). While these measures are aimed at suppressing American economic interests, they could indirectly strengthen Southeast Asia's, particularly Indonesia's position in China's new supply chain. Thus, it reflects that China's position in this industry remains a key player and is difficult to displace. As such, Indonesia, which is China's main trading partner, still needs to maintain good relations with that country.

Given its abundant natural resources and thriving industrial sector, Indonesia possesses the potential to emerge as China's primary trade partner, thereby serving as an alternative source for the products previously supplied by America. This potential not only reflects Indonesia's growing economic influence in the region but also highlights its strategic importance amid the shifting dynamics of global trade. The positions of Indonesia as a key player in the evolving architecture of global economic partnerships, emphasizing the significance of national policy alignment to support such emerging roles. Nevertheless, the ongoing tensions in the South China Sea have the potential to generate significant geopolitical risks for the global nickel trade, a particularly salient concern given the potential for disruption to the security and stability of the primary maritime routes utilised for the exportation of nickel ore. Conflicts of this nature have the potential to exacerbate the risks associated with trade, disrupt the supply chain, and trigger fluctuations in the global nickel market price. This scenario could potentially lead to impediments or delays in the export process, which would directly impact the continuity of nickel supply, particularly for major importers such as China. Therefore, Indonesia needs to maintain its partnership with China, especially in the nickel industry, in order to anticipate the worst-case scenario in geopolitics.

Indonesia is striving to take a neutral position in the geopolitical landscape of the nickel industry by encouraging diversification of foreign investment sources from various countries, while remaining cautious not to offend China, which has dominated Indonesia's nickel industry (Wijaya & Jones, 2025c). To diversify its partnerships, it is crucial for Indonesia to proactively engage in diplomatic negotiations with the United States. Concurrently, it is imperative to assess the strategic partnership with China. In light of this, the Republic of Indonesia is endeavouring to establish a cooperative mineral policy with several other nations. Initially, the negotiation between Indonesia and the United States was conducted through the framework of the Trade and Investment Framework Agreement (TIFA), along with other platforms (US Embassy Jakarta, 2023). The objective of this meeting is to acknowledge the critical mineral resources of the United States, as well as Indonesia's global leadership in the production of nickel, cobalt, and other critical minerals.

Secondly, the collaboration between Indonesia and France in the nickel sector involves a strategic partnership between Danantara Indonesia, the Indonesian Investment Authority (INA), and the French mining company Eramet (Indonesia Investment Authority, 2025). Subsequently, the Indonesian government undertook active diplomatic efforts to secure Korea's participation in the development of the electric power industry, a sector closely linked to the nickel smelting industry. The government employed a range of strategies to promote investments (Nadhif & Suryadipura, 2023).

In light of these circumstances, Indonesia needs to expand its strategic cooperation with new partner nations, including the United States, the Republic of Korea, France, and other countries, through bilateral treaties, free trade agreements, or collaborative supply chain management for green energy. Concurrently, Indonesia must also prioritise maintaining its strategic partnership with China. It is essential to recognise the significant impact that China has had on the Indonesian nickel industry, particularly in its pivotal role in the downstream processing of nickel.

CONCLUSION

This study indicates that Indonesia plays a pivotal role in the global nickel industry, particularly in the context of the intensifying geopolitical rivalry between major global powers, namely China and the United States Given its dominance in global nickel reserves, Indonesia plays a dual role—as both a key supplier of critical raw materials for the electric vehicle industry and a major actor in the global nickel market. However, this strategic position also exposes Indonesia to distinct policy challenges and opportunities. The intensifying geopolitical rivalry between the United States and China constrains Indonesia's ability to freely navigate trade and investment decisions, pressuring it to balance competing interests. At the same time, this rivalry presents an opportunity for Indonesia to leverage its resources by diversifying trade partnerships, strengthening investment governance, and asserting greater autonomy in shaping its mineral policies within the global energy transition framework.

The People's Republic of China, given its extensive investment in the Indonesian nickel sector, exerts a considerable influence on the trajectory of the national nickel industry. On the other hand, the Inflation Reduction Act of the United States may present an unprecedented challenge for the Indonesian nickel industry. In light of the present circumstances, it is imperative for Indonesia to adopt a hedging strategy that not only maintains balanced relations with both China and the United States but also includes concrete measures such as diversifying trade agreements beyond these two powers, encouraging foreign direct investment from a broader range of countries, and actively participating in multilateral forums to strengthen diplomatic leverage. This approach would help Indonesia safeguard its strategic partnerships, reduce overdependence on any single actor, and enhance its flexibility in navigating shifting geopolitical and economic dynamics.

This research enhances the theoretical framework by applying geopolitical theory and the hedging strategy to the management of Indonesia's natural resources. Through this approach, the study deepens the understanding of how nations like Indonesia can strategically position themselves amid global competition for critical minerals. It adds valuable perspectives to the existing body of knowledge on resource nationalism, diplomatic engagement in critical minerals, and strategic economic alignment in the era of clean energy transition.

From a practical standpoint, the study provides concrete recommendations for policymakers, emphasizing the importance of hedging tactics and broadening international partnerships to protect national interests. Additionally, it offers practical guidance on managing foreign investments, strengthening Indonesia's participation in the global clean energy supply chain, and reducing vulnerabilities caused by geopolitical tensions. These contributions aim to assist in shaping informed policies that ensure Indonesia's economic resilience and energy security over the long term.

Thus, this study recommends that Indonesian policymakers develop strategic frameworks to mitigate geopolitical risks in the nickel sector, particularly by diversifying international partnerships and investing in downstream processing capabilities to enhance economic resilience. However, the research is limited by its reliance on secondary data and its focus primarily on Indonesia's bilateral relations with major powers, potentially overlooking the roles of other regional actors and grassroots perspectives. Future research should incorporate empirical data

through interviews with industry stakeholders, explore the socio-environmental impacts of nickel industrialization, and conduct comparative studies with other nickel-producing nations to provide a more comprehensive understanding of how global geopolitical shifts influence critical mineral governance.

The authors declare that there are no conflicts of interest related to the publication of this article. No financial, professional, or personal relationships have influenced the research, analysis, or conclusions presented in this study. All authors have independently conducted and contributed to the research with impartiality and integrity. Furthermore, the authors confirm that they have no affiliations or involvements with any organization or entity with any financial or non-financial interest in the subject matter discussed in this manuscript. The content, interpretations, and opinions expressed in this article are solely those of the authors and do not necessarily reflect the views of any affiliated institutions.

The authors gratefully acknowledge Universitas Padjadjaran, with particular thanks to Mr. R. Dudy Heryadi and Mr. Akim, for granting access to essential academic resources and research facilities that contributed to this study. The authors also extend their sincere appreciation to colleagues for their insightful feedback during the research process, as well as to the anonymous reviewers whose thoughtful comments greatly enhanced the quality of this manuscript. Additionally, the authors recognize the contributions of various think tanks, research organizations, and government institutions whose published materials and policy documents provided a critical foundation for this analysis.

REFERENCES

Agung, M., & Adi, E. A. W. (2022). Peningkatan Investasi Dan Hilirisasi Nikel Di Indonesia. *Jurnal Ilmu Sosial Dan Pendidikan (JISIP)*, *6*(2), 4009–4020. http://dx.doi.org/10.58258/jisip.v6i2.3085

Al Amin. (2025). Sino-Indian rivalry in Indo-Pacific and Bangladesh's geo-strategic hedging in response to its security threats. *Discover Global Society*, *3*(1). https://doi.org/10.1007/s44282-025-00144-1

Ali, M. I., Rahaman, M. A., Ali, M. J., & Rahman, M. F. (2025). The growth–environment nexus amid geopolitical risks: cointegration and machine learning algorithm approaches. *Discover Sustainability*, *6*(1). https://doi.org/10.1007/s43621-025-00872-z

Bakry, U. S. (2023). *Metode Penelitian Hubungan Internasional* (4th ed.). Pustaka Pelajar.

Barizi, M. H., & Triarda, R. (2023). Rantai Pasokan Global Dan Nasionalisme Sumber Daya Alam: Kajian Terkait Hilirisasi Nikel Di Indonesia. *Indonesian Journal of International Relations*, *7*(2), 312–338. https://doi.org/10.32787/ijir.v7i2.466

Camba, A. (2021). The unintended consequences of national regulations: Large-scale-small-scale relations in Philippine and Indonesian nickel mining. *Resources Policy*, *74*(August), 102–213. https://doi.org/10.1016/j.resourpol.2021.102213

Dogan, E., Majeed, M. T., & Luni, T. (2021). Analyzing the impacts of geopolitical risk and economic uncertainty on natural resources rents. *Resources Policy*, *72*(January), 102056. https://doi.org/10.1016/j.resourpol.2021.102056

Indonesia Investment Authority. (2025). *Supporting Nickel Downstream Industry in Indonesia, Danantara Indonesia and INA Announce Strategic Partnership with Eramet*. Indonesia Investment Authority. https://www.ina.go.id/press-release/supporting-nickel-downstream-industry-in-indonesia-danantara-indonesia-and-ina-announce-strategic-partnership-with-eramet?file=en

Khalil, S. B., & Broughel, A. (2025). Stainless success, battery lag: Evaluation of Indonesia's resource nationalism in nickel. *The Extractive Industries and Society*, *23*. https://doi.org/10.1016/j.exis.2025.101677

Kusumadewi, H., & Wiswayana, W. M. (2024). Multilevel Hedging for Middle-Regional Power: Indonesia Ascent Toward Powerhood Through Hedging. *Indonesian Journal of International Relations*, *8*(2), 392–413. https://doi.org/10.32787/ijir.v8i2.591

Lamont, C. (2015). *Research Methods in International Relations* (N. Aguilera, Ed.). SAGE Publications Inc.

Lin, B., & Zhang, Z. (2025). Geopolitics of renewable energy development: The role of energy metals. *Energy Policy*, *198*(July 2024), 114482. https://doi.org/10.1016/j.enpol.2024.114482

Lu, C. (2024, August 8). Can Indonesia's Nickel Industry Break Free from China's Grip? *Foreign Policy Analysis*. https://foreignpolicy.com/2024/08/08/indonesia-nickel-china-us-critical-mineral-inflation-reduction-act/

Marwanto, Rumiartha, I. N. P. B., & Putri, M. (2024). Business on Nickel Down Streaming with China and European Union Lawsuits at World Trade Organization. *Jurnal IUS Kajian Hukum Dan Keadilan*, *12*(2), 316–329. https://doi.org/10.29303/ius.v12i2.1381

Mubah, A. S. (2019). Indonesia's Double Hedging Strategy toward the United States-China Competition: Shaping Regional Order in the Indo-Pacific? *Issues and Studies*, *55*(4), 1–27. https://doi.org/10.1142/S1013251119400071

Müller, M. (2023). The 'new geopolitics' of mineral supply chains: A window of opportunity for African countries. *South African Journal of International Affairs*, *30*(2), 177–203. https://doi.org/10.1080/10220461.2023.2226108

Nadhif, A., & Suryadipura, D. (2023). Indonesia's Commercial Diplomacy towards South Korea in Efforts to Realize EV Battery Project Investment Diplomasi Komersial Indonesia terhadap Korea Selatan dalam Upaya Realisasi Investasi Proyek Baterai EV. *International Journal*, *17*(1), 215–238. https://doi.org/10.20473/JGS.17.1.2023.215-238

Noussan, M., Raimondi, P. P., Scita, R., & Hafner, M. (2021). The role of green and blue hydrogen in the energy transition—a technological and geopolitical perspective. *Sustainability (Switzerland)*, *13*(1), 1–26. https://doi.org/10.3390/su13010298

Obaidullah, M., & Howlader, M. R. (2025). Assessing geopolitical and socio-economic consequences of India-Bangladesh water disputes. *Discover Global Society*, *3*(1). https://doi.org/10.1007/s44282-025-00137-0

Oliveira, G. de L. T., Murton, G., Rippa, A., Harlan, T., & Yang, Y. (2020). China's Belt and Road Initiative: Views from the ground. *Political Geography*, *82*(March). https://doi.org/10.1016/j.polgeo.2020.102225

Palle, A. (2021). Bringing geopolitics to energy transition research. *Energy Research and Social Science*, *81*(January). https://doi.org/10.1016/j.erss.2021.102233

Pandyaswargo, A. H., Wibowo, A. D., Maghfiroh, M. F. N., Rezqita, A., & Onoda, H. (2021). The emerging electric vehicle and battery industry in Indonesia: Actions around the nickel ore export ban and a SWOT analysis. *Batteries*, *7*(4). https://doi.org/10.3390/batteries7040080

Petrović, P., & Ostojić, I. (2025). Effects of policy induced uncertainty and geopolitical risk on renewable energy production: Econometric analysis. *Renewable Energy*, *255*(May). https://doi.org/10.1016/j.renene.2025.123783

Qaseem, F. I. (2023). The Analysis of Indonesia's Nickel Export Affecting the Dynamic of Foreign Direct Investment (FDI) inflows in Indonesia: Multiple Regression Analysis. *Cognizance Journal of Multidisciplinary Studies*, *3*(10), 240–252. https://doi.org/10.47760/cognizance.2023.v03i10.018

Radhica, D. D., & Wibisana, R. A. (2023). Proteksionisme Nikel Indonesia dalam Perdagangan Dunia. *Cendekia Niaga Journal of Trade Development and Studies*, *7*(1), 74–84. https://jurnal.kemendag.go.id/index.php/JCN/article/view/821

Rakhmat, M. Z. (2025, April 8). U.S. Tariff War Could Deepen Indonesia's Ties with China—But Jakarta Holds the Keys. *Global South Project*. https://chinaglobalsouth.com/analysis/u-s-tariff-war-could-deepen-indonesias-ties-with-china-but-jakarta-holds-the-keys/

Reinpal, F., Almubaraq, H. Z., & Lelyana, N. (2023). Nickel Ban and Indonesia's Defense: A WTO Dispute with Implications for National Security. *JournaJournal of International Trade, Logistics and LawlofInter*, *9*(2), 1–9. https://doaj.org/article/4ab7669b7669468298263f2f48f0b861

Rosmayanti. (2023, August 22). Hilirisasi Nikel Indonesia dalam Rivalitas Ekonomi dan Geopolitik antara AS dan China. *Warta Ekonomi*. https://wartaekonomi.co.id/read511517/hilirisasi-nikel-indonesia-dalam-rivalitas-ekonomi-dan-geopolitik-antara-as-dan-china?page=2

Saadaoui, J., Smyth, R., & Vespignani, J. (2025). Ensuring the security of the clean energy transition: Examining the impact of geopolitical risk on the price of critical minerals. *Energy Economics*, *142*(January), 108195. https://doi.org/10.1016/j.eneco.2025.108195

Santoso, R. B., Moenardy, D. F., Muttaqin, R., & Saputera, D. (2023). Pilihan Rasional Indonesia dalam Kebijakan Larangan Ekspor Bijih Nikel. *Indonesian Perspective*, *8*(1), 154–179. https://doi.org/10.14710/ip.v8i1.56383

Setiani, H., Valennia, R., & Rusni, N. K. (2024). Nickel export ban policy in Indonesia - a path to sustainable economic development? *EcoProfit: Sustainable and Environment Business*, *1*(2), 120–130. https://doi.org/10.61511/ecoprofit.v1i2.2024.468

Singgih, V. (2024, January 29). Setumpuk masalah di balik investasi China - "Demam nikel membuat pemerintah kehilangan akal sehat." *BBC News Indonesia*. https://www.bbc.com/indonesia/articles/cw4m1k0j7vro

Smith, D. C. (2023). Geopolitical realities of the energy transition supply chain: energy security risks and opportunities. *Journal of Energy and Natural Resources Law*, *41*(3), 233–239. https://doi.org/10.1080/02646811.2023.2230732

Ursache, A. (2023). Critical Materials Raw as Leverage in Global Geopolitics. *SCIENTIA MORALITAS - International Journal of Multidisciplinary Research*, *8*(2), 239–250. https://doi.org/10.5281/zenodo.10431662

US Embassy Jakarta. (2023). *Joint Statement of the Leaders of the United States and the Republic of Indonesia: Elevating Relations to a Comprehensive Strategic Partnership*. U.S Embassy & Consulates in Indonesia. https://kemlu.go.id/portal/en/read/5499/siaran_pers/joint-statement-of-the-leaders-of-the-united-states-and-the-republic-of-indonesia-elevating-relations-to-a-comprehensive-strategic-partnership

Wang, B., Wang, L., Zhong, S., Xiang, N., & Qu, Q. (2023). Assessing the supply risk of geopolitics on critical minerals for energy storage technology in China. *Frontiers in Energy Research*, *10*(January), 1–13. https://doi.org/10.3389/fenrg.2022.1032000

Webb, S., & Webb, B. (2010). *Methods of Social Study*. Cambridge University Press.

Wijaya, T., & Jones, L. (2025a). Indonesia, nickel, and the political economy of polyalignment in the Second Cold War. *Third World Quarterly*, 1–20. https://doi.org/10.1080/01436597.2025.2465514

Wijaya, T., & Jones, L. (2025b). Indonesia, nickel, and the political economy of polyalignment in the Second Cold War. *Third World Quarterly*, 1–20. https://doi.org/10.1080/01436597.2025.2465514

Wijaya, T., & Jones, L. (2025c). Indonesia, nickel, and the political economy of polyalignment in the Second Cold War. *Third World Quarterly*, 1–20. https://doi.org/10.1080/01436597.2025.2465514

Winanti, P. S., & Diprose, R. (2020). Reordering the extractive political settlement: Resource nationalism, domestic ownership and transnational bargains in Indonesia. *Extractive Industries and Society*, *7*(4), 1534–1546. https://doi.org/10.1016/j.exis.2020.08.015

Yuniarto, B., Nurani, R., Apriyono, Rahmawati, R., & Nurfadilah, N. (2024). The Role of Geopolitics on Economic Growth in Indonesia. *American Journal of Open Research*, *3*(9), 251–257. https://doi.org/10.59066/ijoms.v2i1.325