
Indo-Phil Nickel Corridor: Opportunities and Challenges

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Abstract

The Indo-Phil Nickel Corridor emerged from cooperation between the Indonesian Nickel Miners Association, locally known as Asosiasi Penambang Nikel Indonesia (APNI), and the Philippine Nickel Industry Association (PNIA), and was further formalised through a Memorandum of Understanding (MoU) on Strategic Nickel Industry Development Cooperation signed during the 48th Association of Southeast Asian Nations (ASEAN) Summit and Related Meetings in Cebu, Philippines. Employing qualitative document analysis informed by geo-economic regionalism, this study examines how the initiative reconfigures regional cooperation in nickel production and value-chain integration. The findings demonstrate that the Corridor creates opportunities for geo-economic integration through the structural complementarity of Indonesia's downstream industrial capacity and the Philippines' upstream resource base, strengthens ASEAN's collective position within global critical mineral supply chains, and encourages greater convergence in environmental, social, and governance (ESG) standards. However, these opportunities are constrained by structural asymmetries, weak institutionalisation, regulatory fragmentation, environmental constraints, and external geopolitical pressures, including trade disputes and increasingly fragmented compliance regimes. This article argues that the Corridor reveals a fundamental governance paradox: its industry-led business-to-business (B2B) structure provides the flexibility necessary to initiate cross-border cooperation while its institutional informality simultaneously constrains the development of durable regional governance. The absence of legally binding commitments, formal dispute-settlement mechanisms, and harmonised regulatory frameworks limits the Corridor's capacity to sustain investment coordination, policy continuity, and resilience to political and market disruptions. The analysis therefore suggests that deeper state-level institutional coordination and regulatory convergence are necessary to overcome these limitations, potentially through a gradual transition toward a government-to-government (G2G)

framework, although such institutionalisation would also expose the Corridor to greater legal and political scrutiny from external trading partners.

Keywords: *Indo-Phil Nickel Corridor, nickel, geo-economic regionalism, supply chain governance, Indonesia, Philippines*

INTRODUCTION

The global transition toward low-carbon energy systems has fundamentally reshaped the geopolitical importance of critical minerals (Gbadeya, et al., 2024; Tian, et al., 2022). Among these, nickel has emerged as a strategic resource due to its central role in the production of lithium-ion batteries, particularly for electric vehicles (EVs), as well as stainless steel manufacturing. As demand for EV batteries accelerates, as Engel et al. (2018) reported, competition over secure, sustainable, and politically stable nickel supply chains has intensified across major economies, including the United States of America (USA), the European Union (EU), and China, among others (Alsharif, 2025). This evolving landscape has elevated nickel from a conventional industrial commodity into a strategic asset embedded within global geo-economic competition.

Southeast Asia, particularly Indonesia and the Philippines, occupies a structurally significant position in the global nickel value chain. Indonesia is the world's largest

producer of nickel and has been pursuing an aggressive downstream industrial strategy, including restrictions on raw ore exports and the development of domestic refining and smelting capacity. In contrast, the Philippines remains one of the largest global exporters of nickel ore but continues to operate primarily within an upstream, extraction-oriented model with limited domestic processing capacity (Camba, 2021). The contrasting industrial structures of the two countries create a form of economic complementarity that extends beyond bilateral trade and presents opportunities for deeper regional coordination in strategic mineral governance.

It is worth noting that Indonesia and the Philippines collectively accounted for 73.6% of global nickel production in 2025 (see Table 1), which underscores their dominant position in the global supply structure. In this configuration, Indonesia contributed approximately 66.7 percent, equivalent to 2.6 million tons, while the Philippines accounted for 6.9 percent, or around 270,000 tons. In

terms of reserve endowment, Indonesia also holds a substantially larger share of global nickel resources at 44.5 percent, estimated at 62 million tons, whereas the Philippines

possesses approximately 3.4 percent, equivalent to 4.8 million tons (U.S. Geological Survey, 2026).

Table 1. Global Nickel Production and Reserves

Country	Nickel Production (in metric tons)				Nickel Reserves* (in metric tons)
	2022	2023	2024	2025	
Indonesia	1,579,000	2,030,000	2,310,000	2,600,000	62,000,000
Philippines	360,000	387,000	354,000	270,000	4,800,000
Russia	267,980	256,320	205,000	200,000	8,300,000
Canada	122,115	158,668	125,000	140,000	2,200,000
New Caledonia (France Territory)	207,069	238,807	116,000	140,000	7,100,000
China	109,400	112,600	115,000	120,000	4,400,000
Brazil	64,084	72,398	67,500	70,000	16,000,000
Australia	155,007	149,090	98,000	45,000	25,000,000
United States of America	17,500	17,000	7,490	10,000	340,000
Rest of the world	378,845	334,117	308,000	290,000	>9,100,000
World (Total)	3,261,000	3,756,000	3,710,000	3,900,000	>140,000,000

Notes: Source: (British Geological Survey, 2025; Statbase, n.d.; U.S. Geological Survey, 2026); *Includes the nickel content of stainless steel and alloy scrap. Excluding scrap, net import reliance would be nearly 100%.

Against this structural backdrop, a new initiative known as the Indo-Phil Nickel Corridor has emerged. This concept was formally articulated following the signing of a Memorandum of Understanding (MoU) on Strategic Nickel Industry Development Cooperation between the Indonesian Nickel Miners Association, locally known as *Asosiasi Penambang Nikel Indonesia (APNI)*, and the Philippine Nickel Industry Association (PNIA) during the Association of Southeast Asian Nations (ASEAN) Summit 2026 in Cebu, Philippines. The initiative seeks to strengthen cooperation in nickel production, downstream processing,

investment facilitation, and environmental, social, and governance (ESG) standards, with the broader aim of enhancing regional competitiveness in the global critical minerals' economy.

Unlike state-led regional economic initiatives, the Indo-Phil Nickel Corridor originated through cooperation between industry associations rather than governments, reflecting the growing role of non-state actors in coordinating regional economic cooperation in strategic sectors. Although the Corridor remains at an early stage of development and has yet to evolve

into a formal institutional arrangement, it constitutes an important attempt to coordinate the upstream and downstream segments of Southeast Asia's nickel value chain through voluntary cross-border industrial cooperation. This arrangement allows Indonesia and the Philippines to pursue deeper industrial coordination without immediately assuming the formal legal obligations and sovereign scrutiny associated with a treaty-based government-to-government (G2G) agreement, particularly in relation to the World Trade Organisation (WTO) and major Western trading partners.

This article examines the Indo-Phil Nickel Corridor as an emerging industry-led regional governance arrangement, focusing on how cooperation initiated by APNI and PNIA interacts with Indonesia–Philippines industrial policies and ASEAN's regional economic agenda to shape Southeast Asia's position in the global critical minerals economy. However, realising this potential requires the Corridor to evolve beyond its current business-to-business (B2B) structure toward a G2G framework, enabling stronger institutional coordination and regulatory convergence to consolidate industry-led cooperation into a durable regional geo-economic governance arrangement.

THEORETICAL FRAMEWORK

This article analyses the Indo-Phil Nickel Corridor through the perspective of geo-economic regionalism. Geo-economic regionalism refers to the process through which geographically proximate economies pursue deeper forms of integration to strengthen collective economic capacity and expand strategic influence within the international system (Castellet, 2024; Goswami, 2026; Mattlin & Wigell, 2016). This form of regionalism extends beyond conventional economic cooperation by incorporating geopolitical considerations into regional policy frameworks. Realistically, the Indo-Phil Nickel Corridor can be interpreted as an attempt by Indonesia and the Philippines to reposition themselves within the global nickel economy not just as resource suppliers but also as coordinated actors within a strategic supply chain architecture.

The Corridor echoes a shift from fragmented national strategies toward a more integrated regional approach to resource governance. Such a trajectory corresponds with Fawcett's (2016) and Purbantina's (2015) conception of economic integration as a constitutive feature of new regionalism in Asia-Pacific, particularly within ASEAN. Member States increasingly respond to global competition

over critical minerals by strengthening regional production networks while balancing national development priorities. The coordination of upstream extraction, downstream processing, and manufacturing across national borders reproduces broader processes of supply-chain governance, whereby economic actors seek to enhance efficiency, resilience, and value capture within increasingly fragmented production networks. The coordination simultaneously generates patterns of interdependence, as resource endowments, industrial capabilities, and market access become mutually reinforcing, creating incentives for sustained cooperation despite differences in domestic development strategies. Moreover, these forms of coordination are not always initiated through formal intergovernmental institutions. Increasingly, industry associations, business networks, and other non-state actors assume governance functions by facilitating cooperation across borders, illustrating the growing significance of industry-led regional governance in regional economic integration.

Global production of critical minerals such as nickel is characterised by fragmented and geographically dispersed value chains, where extraction, processing, refining, and end-use manufacturing often occur in different countries. The fragmentation

creates both vulnerabilities and opportunities for resource-rich states. From this perspective, the Indo-Phil Nickel Corridor can be understood as an effort to reduce fragmentation by creating a more structured upstream–downstream linkage between two major producers: (a) upstream extraction capacity in the Philippines and (b) downstream processing and refining dominance in Indonesia. The Corridor thus represents an attempt to increase coordination in a sector where value capture is highly unevenly distributed. From this standpoint, the Indo-Phil Nickel Corridor is an emerging geo-economic arrangement that seeks to coordinate Indonesia's downstream industrial capacity with the Philippines' upstream extraction profile to strengthen Southeast Asia's position within global nickel value chains. Its industry-led character demonstrates how regional governance can emerge through functional cooperation among private-sector actors, while its emphasis on value-chain integration reflects the strategic logic of geo-economic regionalism in responding to intensifying global competition over critical minerals.

Since a distinctive feature of the Corridor is its non-state origin, emerging through cooperation between industry associations, the APNI–PNIA MoU highlights the growing role of private-sector and semi-public actors

in shaping regional economic governance and aligns with broader trends in global governance where industry associations coordinate cross-border production strategies, technical standards (including ESG frameworks) are developed outside formal state institutions, and regional integration is increasingly driven by networked governance structures. Positively, the Corridor is an attempt to construct mutually beneficial interdependence based on complementary resource endowments. Notwithstanding, interdependence is not inherently symmetrical. Differences in industrial capacity, regulatory frameworks, and market positioning may produce unequal gains unless carefully managed through governance mechanisms. This theoretical lens is therefore essential for evaluating both the opportunities and structural risks embedded in the Corridor.

RESEARCH METHOD

The unit of analysis in this study is the Indo-Phil Nickel Corridor as an emerging industry-led regional governance arrangement. To capture its multi-layered character, the analysis is conducted across three interconnected levels. At the micro level, the study examines the cooperative mechanisms established by the APNI and PNIA, focusing on how industry associations

coordinate cross-border supply chains and value-chain integration. At the state level, it analyses how the industrial and regulatory policies of Indonesia and the Philippines enable and shape the Corridor's development. At the regional level, the study considers how the Corridor aligns with ASEAN's broader agenda on regional economic integration and critical mineral governance, thereby assessing its implications for Southeast Asia's evolving geo-economic regionalism. These three analytical levels are examined as complementary dimensions of the same phenomenon rather than as separate units of analysis, allowing the study to explain how industry-led cooperation interacts with national policy and regional governance in shaping the development of the Indo-Phil Nickel Corridor.

Given the early-stage and non-institutionalised nature of the Indo-Phil Nickel Corridor, which is characterised by limited formal statistical observability and the absence of an established institutional framework, this study adopts qualitative document analysis, complemented by discourse analysis, as its research design. Qualitative document analysis enables the systematic examination and interpretation of documentary evidence to understand emerging institutional arrangements, policy

objectives, and patterns of regional economic cooperation (Bowen, 2009). This approach is particularly appropriate for analysing contemporary initiatives whose development is primarily documented through official statements, policy documents, memoranda of understanding (MoUs), industry reports, and related secondary sources.

The analysis is grounded in a conceptual-analytic framework (Audi, 1983; Bojanić, et al., 2018; Furner, 2004; Jackson, 2024; Racine, 2015) with operationalisation of document analysis (Bowen, 2009; Gross, 2018) of official statements, communiqués, case studies, policy briefings, and industry reports related to the APNI–PNIA cooperation framework and ASEAN-level discussions on critical minerals, particularly on nickels, and integrates four interrelated concepts: (1) geo-economic coordination mechanisms in global supply chains, (2) supply-chain governance in critical minerals production, (3) asymmetric interdependence in international political economy, and (4) industry-led regionalism involving non-state actors in institutional emergence. These analytical lenses are used as tools to structure empirical observation guided by the framework of geo-economic regionalism.

Data analysis also follows a critical discourse analysis (Fairclough, 1992; 1995), involving systematic analysis across documents and ministerial speeches, focusing on recurring categories and examining how these categories are framed and positioned within broader narratives of regional economic integration and global energy transition governance. To enhance analytical rigor, the study also applies a mechanism-oriented interpretive logic (Cornelissen & Werner, 2025) to trace how material conditions in nickel production, notably ore composition and smelting requirements, interact with industrial policy choices to produce specific forms of coordination and to interpret the causal pathways in shaping the Corridor's institutional form.

This study is primarily bounded by the nascent and non-binding nature of the Indo-Phil Nickel Corridor and focuses exclusively on identifying the Corridor's primary challenges and opportunities within the existing status quo, rather than forecasting definitive success or measuring the impact of external variables on its future trajectory.

RESULT AND DISCUSSION

The Corridor is organised around functional economic coordination, where industrial complementarities, supply-chain

requirements, and private-sector collaboration collectively shape regional cooperation. At the same time, the analysis demonstrates that this emerging arrangement remains constrained by weak institutionalisation, regulatory fragmentation, environmental governance challenges, and

external geopolitical pressures. These dynamics do not operate in isolation but intersect in ways that shape both the possibilities and limits of the Corridor's development, the broader contours of which are outlined in Table 2.

Table 2. Opportunities and Challenges of the Indo-Phil Nickel Corridor

Dimension	Opportunities	Challenges
Resource complementarity	Ore chemistry improves smelting efficiency	Coordination limited by weak institutionalisation
Governance flexibility	Technical cooperation enables adaptive coordination	Business-to-business (B2B) basis; voluntary framework reduces enforceability
Power structure and geo-economic positioning	Enables Philippines' and Indonesia's upgrading; ASEAN strengthens role in global nickel chain	Persistent value-chain inequality remains; External geopolitical volatility constrains autonomy
Normative alignment	ESG convergence improves market legitimacy	Uneven ESG capacity across jurisdictions; environmental and regulatory constraints impacting production output
Supply security	Indonesian feedstock access becomes more stable; Philippines nickel industry integrates into mid-chain processing, expanding toward processing and refining	No binding mechanism that ensures long-term stability
Supply-chain integration	Partial upstream–downstream articulation achieved	Regulatory fragmentation limits harmonisation

Source: Author's conceptual framework and interpretive synthesis of the Indo-Phil Nickel Corridor arrangement.

Opportunities

The findings reveal a highly strategic, symbiotic alliance where the Philippines acts as the upstream powerhouse and Indonesia dominates as the midstream and downstream giant. A central empirical finding is that the Corridor's geo-economic significance is anchored in a material

complementarity between Indonesian and Philippine nickel systems. The two countries creating the material basis for an industry-led form of regional integration. As illustrated in Table 3, the Philippines performs a predominantly upstream role through large-scale nickel ore extraction, whereas Indonesia has established itself as the

regional centre for downstream processing and refining. This division of production shows an adaptive form of regional supply-

chain governance in which industrial coordination is driven by functional compatibility.

Table 3. Indo-Phil Nickel Corridor Supply Chain Mapping

Supply Chain Phase	Definition in Nickel Industry	Indonesia's Status	Philippines' Status
Upstream	Mining raw nickel ore from the ground	Consuming internally; strictly regulated (<i>hilirisasi</i>) strategy	Primary exporter; supplying Indonesian smelters
Midstream	Smelting ore into Nickel Pig Iron (NP), Ferronickel, and Battery-grade Mixed Hydroxide Precipitate (MHP)	Global Leader; hundreds of operational smelters	Developing; actively constructing plants via Indonesian joint ventures
Downstream	Manufacturing electric vehicle (EV) battery packs and precursor materials	Advanced; actively building EV ecosystem hubs	Minimal; lacks integration into final component manufacturing

Source: Author's conceptual framework and interpretive synthesis of the Indo-Phil Nickel Corridor arrangement.

The complementarity is grounded in geological variation, particularly the silicon-to-magnesium (Si/Mg) ratio of laterite ores, which directly influences the efficiency of Rotary Kiln Electric Furnace (RKEF) smelting technology that dominates Indonesia's downstream industry (Hidayat, 2026). Ore composition determines slag behaviour, energy consumption, furnace stability, and metal recovery rates, making compositional compatibility a critical operational requirement. Consequently, Indonesia's downstream industry, which generated approximately USD 9.73 billion in exports prior to the agreement (Reuters, 2026), depends not only on the availability of nickel ore but also on access to feedstock possessing suitable metallurgical characteristics. The evidence therefore suggests that the Corridor is underpinned by

production requirements that make cross-border coordination economically.

Indonesia's downstream industrial strategy further reinforces this geo-economic logic. Supported by its export restriction policy (*hilirisasi*), expanding refining capacity, and geographical proximity to major Asian electric vehicle manufacturing hubs (PT Trimitra Sistem Solusindo, 2026), Indonesia has progressively repositioned itself from a raw material exporter to a producer of higher value-added nickel products. As Situmorang (2026) argues, this strategy enables Indonesia to move beyond the technology trap while strengthening its bargaining position within global supply chains.

Within the production structure, the Philippines occupies a complementary rather

than competing position. Although endowed with approximately 4.8 million metric tons of nickel reserves concentrated in Zambales, Surigao, Dinagat, and Palawan (International Trade Administration, 2025) , its participation in the value chain remains largely confined to raw ore extraction (see Table 4). The

Corridor therefore creates opportunities for gradual industrial upgrading by integrating Philippine production more closely with regional processing networks, thereby facilitating technology diffusion, investment, and greater participation in higher-value stages of the nickel value chain.

Table 4. Strategic Evolution of the Philippines' Nickel Industry under the Indo-Phil Nickel Corridor

Dimension	Philippines' Situation Before May 2026 APNI–PNIA Agreement	Intended Post-Agreement Trajectory
Primary role	Raw ore exporter	Regional supply chain participant
Value capture	Extraction margin only	Integration into mid-chain processing
Technology access	Limited domestic capability	Joint development with Indonesian partners (through APNI)
Workforce focus	Mining operations	Expanding toward processing and refining
ESG benchmarking	Variable and fragmented	Aligned with regional industry standards

Source: (Hidayat, 2026)

The statement attributed to Airlangga Hartarto, Coordinating Minister for Economic Affairs of the Republic of Indonesia, as cited in *Media Indonesia* (Firdausy, 2026) lies in the manner by which it discursively naturalises a division of labour within the Indo-Phil Nickel Corridor, in which differentiated positions along the value chain are reframed as complementary outcomes of integration.

With this Corridor, the Philippines will no longer be merely an exporter of raw ore. It will be integrated into a higher regional value chain, while Indonesia will receive guaranteed feedstock security for its upstream

battery and stainless-steel industries. This aligns with the directive of the 27th ASEAN Economic Community Council (AECC) Summit to strengthen critical supply chains in the ASEAN region. (Hartarto, cited in Firdausy, 2026; translated from Indonesian by the author)

This configuration indicates significant untapped potential for expanding exploration capacity to capture greater value within the Philippines' national economy. Partnership opportunities emerge along the broader mining value chain, specifically in enhancing exploration

capabilities, improving geological mapping and sensing technologies, and strengthening extraction efficiency through advanced mining systems and digital operational tools. These dimensions point to a structural opportunity for deepened collaboration in building more integrated and value-added mineral production systems linked to Indonesia–Philippines supply chain complementarities.

For Indonesia, whose nickel resources are concentrated in Sulawesi, Maluku, and Papua, this coordination supports the continued expansion of vertically

integrated industrial clusters built upon approximately 5.3 billion tons of nickel ore, equivalent to around 55 million tons of contained nickel metal (PT Trimitra Sistem Solusindo, 2026), which underpins its dominant position in global supply chains. The production of nickel matte and Mixed Hydroxide Precipitate (MHP), together with the deployment of Rotary Kiln Electric Furnace (RKEF) and High-Pressure Acid Leach (HPAL) technologies, further demonstrates Indonesia's integration into electric vehicle battery supply chains and the broader clean-energy economy.

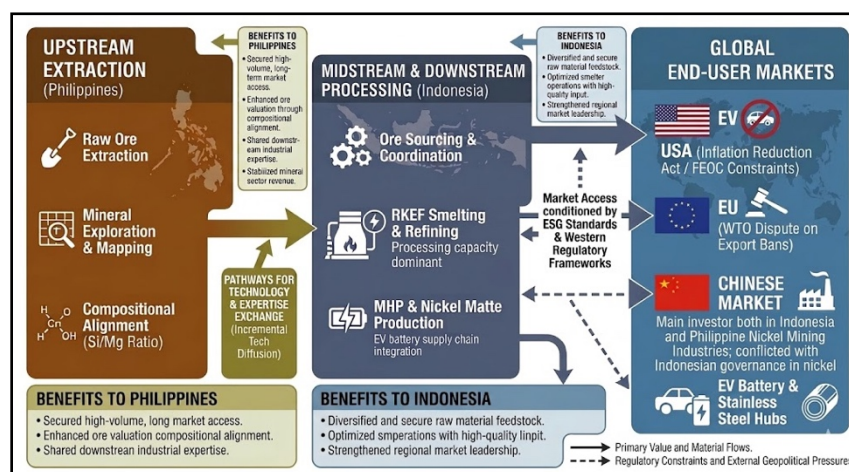


Figure 1. The Indo-Phil Nickel Corridor: Strategic Value Chain (conceptualised and developed by the author)

Indonesia and the Philippines strategically coordinate their complementary positions within the nickel value chain to enhance Southeast Asia's competitiveness in the global critical minerals economy (see Figure 1). This corresponds that in a geo-economic

context, developing and middle-power states respond to neo-mercantilist pressures from advanced economies by constructing regional economic arrangements and deepening cooperation with neighbouring countries (Inan, 2005). The Philippines gains

incremental access to technological upgrading and industrial learning, while Indonesia secures more stable access to compositionally suitable feedstock. This produces a managed form of interdependence in which value-chain hierarchy persists but becomes operationally coordinated. Also, certain dimensions of the Corridor, from the perspective of participating States, reveal tendencies that approximate neo-mercantilist reasoning, particularly insofar as critical mineral governance is increasingly mobilised as an instrument for securing strategic advantage through state-supported industrial transformation. This development, in turn, will elevate ASEAN's strategic visibility in a pivotal segment of the energy transition value chain.

Challenges

Despite these opportunities, the Indo-Phil Nickel Corridor remains constrained by structural and institutional limitations that restrict its capacity to evolve into a stable governance regime. The most fundamental constraint lies in its weak institutional foundation. Coordination is based on a non-binding MoU between industry associations. This industry-led character is explicitly reflected in Indonesia's Energy and Mineral Resources Minister's clarification that the

nickel cooperation framework is organised on a B2B basis rather than through direct state-to-state engagement, with government involvement limited to facilitation rather than binding intergovernmental commitments (Mahardhika, 2026). This design removes enforceability from the arrangement and replaces it with voluntary coordination, which makes continuity dependent on sustained alignment between commercial incentives and national policy priorities.

A second structural constraint is embedded in the persistence of asymmetry within the nickel value chain. Indonesia's downstream dominance displays state-led industrial policy and sustained investment in smelting infrastructure, while the Philippines remains concentrated in upstream extraction with limited capacity for domestic value addition. The Corridor does not fundamentally alter this distribution and risks stabilising a form of asymmetric interdependence in which higher-value processing remains concentrated in Indonesian industrial systems, while Philippine participation is largely confined to raw material supply and incremental technological upgrading. This raises broader concerns regarding long-term distributive balance within regional integration processes.

As shown in Table 5, environmental constraints also constitute a key structural challenge for the Indo-Phil Nickel Corridor, as open-pit nickel extraction drives deforestation and biodiversity loss, and is further compounded by the energy-intensive nature of smelting and refining, which collectively heighten the sector's carbon footprint and embed the Corridor within increasingly stringent global sustainability expectations. In the Philippine context, ongoing reforms to the Republic Act 7942, or the Mining Act of 1995, including the proposed shift to a margin-based royalty system and stronger integration of environmental and stakeholder considerations in permitting, introduce a degree of regulatory transition that may affect fiscal predictability and investment stability. Philippine mining regulations formally require compliance with social development obligations and environmental rehabilitation measures, including community welfare programs and reforestation commitments. Still, such provisions, as per Dela Cruz Jr., et al. (2026), are often unevenly implemented in practice. This reinforces the persistence of an

extractive-oriented mining structure and, might as well, confirms longstanding structural limitations in which the mining sector in the Philippines has remained largely confined to raw material extraction (Amnesty International, 2026; Center for Environmental Concerns-Philippines, 2018), with limited contribution to downstream industrial development or agricultural modernisation, as unprocessed ores continue to dominate export flows. Likewise, in Indonesia, across the overall period of nickel mining process, gains in infrastructure development and living standards were offset by a concurrent decline in environmental conditions, corroborating the findings of the Centre for Research on Energy and Clean Air (CREA) and Centre of Economic and Law Studies (CELIOS) (2024), Lo et al. (2024), and Rosada & Paksi (2025). This indicates that environmental governance within the two States generates sustainability trade-offs that materially condition the Corridor's prospects for consolidating into a coherent and durable regional industrial governance arrangement and must be addressed.

Table 5. ESG Regulatory Landscape and Divergence in Indonesia and the Philippines

Dimension	Indonesia: Developmental-Iterative Model	Philippines: Extractive-Formalist Model
Primary Legislation	“Work-in-progress” policy environment; iterative revisions	Republic Act 7942 (Mining Act of 1995)
Key Mandates	Foreign exchange retention; forestry fines; Rotary Kiln Electric Furnace (RKEF) and High-Pressure Acid Leach (HPAL) technological shifts	Social Development & Management Program (SDMP); Reforestation
Current Reforms	Focus on downstream “green” battery supply chains (Mixed Hydroxide Precipitate [MHP]/Nickel Matte)	Margin-based royalty system; increased stakeholder integration
Implementation Gap	Gains in infrastructure offset by rapid environmental decline	Uneven enforcement; persistence of raw material export orientation
Pressure	Intense scrutiny from Western regulators (European Union [EU]/ World Trade Organisation [WTO]) and United States of America’s (USA) Inflation Reduction Act (IRA) compliance	Growing pressure from local non-government organisations (NGOs) and transparency advocates

Source: Author’s synthesis

In addition, the institutional trajectory of the Corridor unfolds within a structural environment marked by complex forms of external determination. Intensifying competition over critical minerals, proliferating sustainability-oriented regulatory mechanisms, and shifts in global production geographies generate pressures that reconfigure the parameters of regional coordination. These conditions simultaneously elevate the strategic importance of cooperation and delimit the extent of its institutional autonomy. Read in relation to Breslin and Nesadurai (2023), the dynamics suggest that economic security initiatives increasingly operate within systems where strategic outcomes remain only partially susceptible to state direction. The significance of the Corridor therefore lies in its exposure to wider structural transformations that shape the horizons of

political and economic action—International Political Economy (IPE).

Despite Indonesia’s position within global nickel supply chains affords considerable strategic leverage, it is simultaneously subjected to intensifying geopolitical and legal contestation within evolving trade governance regimes. The Inflation Reduction Act (IRA) of the USA, together with broader efforts to restrict eligibility linked to so-called “foreign entities of concern,” introduces new constraints on market access, while the EU’s initiation of a WTO dispute over Indonesia’s nickel export restrictions further underlines the external scrutiny directed at its resource industrialisation strategy (Camarillo, 2025; Sugihartono, 2024; Widiatedja, 2023). Governance tensions are reflected in investor responses as Chinese-invested firms, the largest investors and operators in

Indonesia's nickel industry, have signalled a severe undermining of confidence due to excessively stringent regulation and purportedly corruption and extortion by authorities, specifically citing substantial tax increases, mandatory 50% foreign exchange retention, drastic 70% cuts to nickel ore quotas, record-breaking forestry fines, the suspension of major hydropower projects, and abrupt pricing revisions that have led to sharply rising production costs, widening operational losses, and cumbersome work visa scrutiny amidst systemic issues like opaque enforcement and blocked appeal channels (China Chamber of Commerce in Indonesia, 2026). Indonesian nickel production is increasingly required to operate within a bifurcated global market architecture, in which one circuit is oriented toward Chinese and broader developing economy demand (Dinata, et al., 2020), while another is governed by Western regulatory and sustainability frameworks that condition access to higher-value markets. These constraints extend beyond Indonesia's domestic industrial trajectory and have direct implications for the Indo-Phil Nickel Corridor, as Indonesia's regulatory exposure and market fragmentation shape the stability and predictability upon which the Corridor's coordination framework depends.

Subsequently, regulatory fragmentation emerges as another point of tension in the Corridor's development. Variations in mining governance frameworks, environmental compliance regimes, and investment regulations create institutional discontinuities that constrain operational harmonisation and impede deeper institutional integration. For instance, Indonesia's iterative and evolving approach to policymaking, often characterised by its "work-in-progress" nature (Zadeh, 2025). This challenge becomes particularly significant when considered alongside Estrin and Hanké (2026) observation that multinational enterprises (MNEs) increasingly operate in contexts where political considerations shape economic decision-making. It is further compounded by the dynamics of linkage politics, wherein the pursuit of regional objectives is conditioned by divergent domestic interests and internal political configurations across participating States (Wardani, et al., 2025). Accordingly, the Corridor's regulatory environment is one in which the prospects for institutional convergence remain structurally conditioned by domestic political configurations that shape regulatory priorities and implementation capacities, so that integration unfolds less as a linear progression toward harmonisation than as an uneven and contingent process in which

coordination is continually recalibrated in response to shifting political-economic constraints and the adaptive strategies of transnational economic actors operating across fragmented jurisdictional spaces.

Finally, within wider patterns of global regionalisation (Lagutina, 2020), the governance architecture of the Corridor remains predominantly industry-led. Even though this enhances flexibility and responsiveness to market conditions, it also limits institutional authority and reduces the availability of formal enforcement and dispute resolution mechanisms. As a result, the Corridor occupies an intermediate governance space between market coordination and institutionalised regionalism, with its long-term trajectory contingent upon whether voluntary industrial coordination can evolve into more durable institutional form. This institutional question echoes Yoshimatsu (2023) that ASEAN faces the imperative of reassessing the foundational requirements of its regional role by strengthening institutional capacity and reconsidering its conventional diplomatic modalities in order to remain effective in governing increasingly complex regional dynamics. The Corridor's trajectory will depend on whether ASEAN can provide a more coherent enabling framework that reduces regulatory fragmentation and

supports cross-border industrial alignment, without displacing the flexibility that currently sustains its functional, market-driven character, although ASEAN remains fundamentally intergovernmental in character and does not exercise supranational authority over its Member States.

Implications for Bilateral and Regional Nickel Governance

The translation of industrial complementarity into a more durable governance arrangement may ultimately require institutional mechanisms extending beyond commercially driven coordination toward deeper forms of policy harmonisation and regulatory interoperability. More broadly, this implication may also extend to future G2G bilateral collaboration in strategic mineral sectors, where sustained coordination increasingly depends upon institutional alignment capable of addressing regulatory fragmentation and cross-border governance asymmetries.

The industry-led character of the Corridor shows a fundamental governance paradox: the very flexibility that allows the Corridor to emerge also prevents it from maturing. Its B2B structure provides the flexibility necessary for rapid cooperation by allowing

APNI and PNIA to coordinate industrial collaboration without the lengthy negotiations, legal obligations, and political sensitivities associated with formal intergovernmental agreements. However, the same institutional informality that facilitates its establishment also limits its long-term development. Because the Corridor lacks legally binding commitments, formal dispute-settlement mechanisms, and harmonised regulatory frameworks, its ability to coordinate investment, ensure policy continuity, and withstand political or market disruptions remains uncertain. In this sense, the flexibility that enables the Corridor's emergence simultaneously constrains its institutional maturation. Overcoming this

paradox would require a gradual transition from networked, industry-led governance toward a more formal G2G framework capable of providing greater regulatory certainty and institutional durability. Yet, such a transition presents a strategic dilemma. While stronger state involvement could consolidate regional cooperation, it would also transform the Corridor from a private-sector initiative into an instrument of state-led critical mineral governance, thereby increasing its exposure to WTO disciplines and greater scrutiny from major trading partners, particularly regarding export restrictions, industrial policy, and non-discriminatory trade practices.

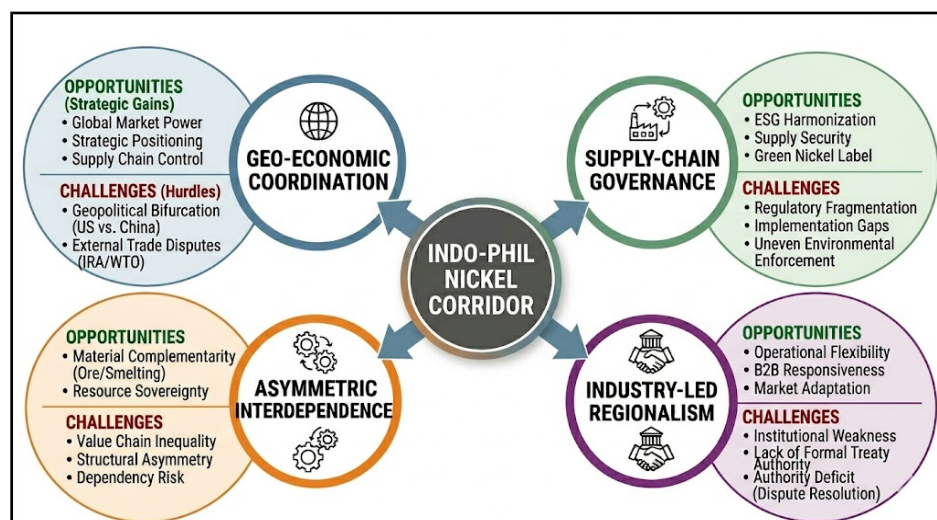


Figure 2. Conceptual Synthesis of Opportunities and Challenges of the Indo-Phil Nickel Corridor (conceptualised and developed by the author)

The Corridor provides a useful point of departure for understanding the difficulties involved in converting economic complementarity into more enduring forms of mineral governance at the regional level. Although still limited in scope and organised primarily through industry actors, its emergence offers an early indication of how cooperation around critical minerals may begin to take shape in Southeast Asia. The Corridor suggests that industry-led initiatives may create spaces through which institutional practices and patterns of coordination gradually develop and remains a tentative and evolving arrangement whose significance rests as much in what it reveals about the constraints of regional coordination as in the opportunities it appears to create, as illustrated in Figure 2.

CONCLUSION

This article has examined the Indo-Phil Nickel Corridor as an emerging attempt to organise cross-border coordination in the critical minerals sector through an industry-led framework formalised between mining associations rather than states. The analysis demonstrates that the Corridor represents an evolving effort to translate resource complementarity into a broader geo-economic strategy linking Philippine upstream extraction capacity with

Indonesian downstream industrial development. The findings reveal that this configuration generates opportunities for ASEAN's value-chain integration and enhanced strategic positioning within global critical mineral markets. However, these opportunities remain constrained by weak institutionalisation, regulatory fragmentation, uneven environmental implementation, and exposure to wider geopolitical and trade-related pressures that extend beyond the control of participating actors.

The study suggests that the Corridor presently occupies an intermediate institutional space between market coordination and formal regional governance. Its significance therefore lies in the extent to which it reveals both the possibilities and limitations of industry-led cooperation as a pathway toward more durable forms of bilateral and regional critical mineral governance. As strategic minerals become increasingly embedded within wider geo-economic competition, the future trajectory of the Corridor will ultimately depend on whether flexible commercial and industrial coordination can evolve into more institutionalised arrangements capable of sustaining cooperation under conditions of growing regulatory and geopolitical complexity. In the Indonesia–Philippines context, this may necessitate a transition

toward a more formalised G2G agreement supported by regulatory harmonisation and state ratification, while at the regional level it may also provide a foundation for an ASEAN-coordinated critical mineral governance framework.

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