A STRATEGIC VISION FOR NEW CALEDONIA'S NICKEL

Understanding global dynamics and developing New Caledonia's international strategy to protect its nickel industry

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Executive Summary

This report analyzes New Caledonia's position within global nickel value chains, in a context of global overcapacity, price volatility, and geopolitical reconfiguration dominated by China. This report therefore responds to an urgent need to understand global issues and dynamics in order to be better able to anticipate and act. Noting New Caledonia’s lack of an international strategy to protect its industry, the report proposes pragmatic, affordable, and quick-to-implement measures in the field of international relations: creation of a professional forum for extractors (NEF) to strengthen upstream bargaining power; integration into integrated production chains (decompartmentalization of European value chains); and adaptation of products to meet real market needs (revival of matte production). The challenge is to move from a passive stance to an active strategy of selective integration in order to stabilize the value captured in NC while aligning with European frameworks.

Table of contents

Abbreviations

A$ - Australian Dollar

ABLIS - Australian Business Licence and Information Service

ADB - Asian Development Bank

ADNAMA - ADNAMA Mining Resources Corporation

AFD - Agence Française de Développement (French Development Agency)

AHK - German Chambers of Commerce Abroad

AMMAN - PT Amman Mineral

ANSTO - Australian Nuclear Science and Technology Organisation

ASEAN - Association of Southeast Asian Nations

ASX - Australian Securities Exchange

BHP - BHP Group

BOI - Board of Investments (Philippines)

BSP - Bangko Sentral ng Pilipinas (Philippines Central Bank)

CBAM - Carbon Border Adjustment Mechanism

CBNC - Coral Bay Nickel Corporation

CCD – Counter-Current Decantation

CEPA - Conservation and Environment Protection Authority

CMF - Critical Minerals Facility

CMOC - China Molybdenum Co., Ltd.

CRMA - Critical Raw Materials Act

CSIRO - Commonwealth Scientific and Industrial Research Organisation

CSRD - Corporate Sustainability Reporting Directive

DENR - Department of Environment and Natural Resources (Philippines)

DFI - Development Finance Institution

DIMENC - Direction de l'Industrie, des Mines et de l'Énergie de la Nouvelle-Calédonie (Direction of Industry, Mines and Energy of New Caledonia)

DMCI - DMCI Mining Corporation

DOD - Department of defence

DOE - Department of Energy (Philippines)

DTI - Department of Trade and Industry (Philippines)

EFA - Export Finance Australia

EIA - Environmental Impact Assessment

EITI - Extractive Industries Transparency Initiative

ESG - Environmental, Social and Governance

EXIM (US EXIM) - Export-Import Bank of the United States

FLNKS - Front de Libération Nationale Kanak et Socialiste (Kanak national and socialist liberation front)

GDP - Gross Domestic Prduct

HPAL - High-Pressure Acid Leach

IEA - International Energy Agency

IRA - Inflation Reduction Act

ISA - International Seabed Authority

ISO - International Organization for Standardization

KNS - Koniambo Nickel SAS

KMHL - Kumul Mineral Holdings Limited

LFP - Lithium Iron Phosphate

LME - London Metal Exchange

LGU - Local Government Unit (Philippines)

MCC - Metallurgical Construction Corporation of China

MGB - Mines and Geosciences Bureau (Philippines)

MHP - Mixed Hydroxide Precipitate

MOA - Memorandum of Agreement

MOU - Memorandum of Understanding

MPFA - Mineral Production Fund Agreement

MPSA - Mineral Production Sharing Agreement

MRDC - Mineral Resources Development Company

MSP - Mineral Security Partnership

NAC - Nickel Asia Corporation

NCA - Nickel Cobalt Aluminium

NC - New Caledonia

NCIP - National Commission on Indigenous Peoples

NEF - Nickel Exploitants Forum

NMC - Nickel Manganese Cobalt

NPI - Nickel Pig Iron

OBBB - One Big Beautiful Bill

PNG - Papua New Guinea

PNIA - Philippine Nickel Industry Association

PRC - People's Republic of China

PRNC - Prony Resources New Caledonia

PT - Perseroan Terbatas (large company status in Indonesia)

RCEP - Regional Comprehensive Economic Partnership

R&D - Research and Development

SLN - Société Le Nickel

SMGM - Société Minière Georges Montagnat

SMT - Société des Mines de la Tontouta

SOE - State-Owned Enterprise

STCPI - Société Territoriale Calédonienne de Participation Industrielle

UE - European Union

UNESCO - United Nations Educational, Scientific and Cultural Organization (Organisation des Nations unies pour l'éducation, la science et la culture)

US - United States

USA - United States of America

USAID - United States Agency for International Development

USGS - United States Geological Survey

USTDA - U.S. Trade and Development Agency

Introduction

New Caledonia benefits from an industrial heritage and technical expertise that are rare in the Pacific: skills in nickel mining and processing that have been gradually acquired at the local level over the decades. However, despite growing responsibilities in international relations and regional integration, the territory has failed to convert these assets into proactive public initiatives to protect and promote its industry. The recent crisis (falling prices, the closure of two out of three producers in 2024, and massive recourse to public subsidies from France) illustrates the urgent need for a change in approach. This does not mean calling for a total and costly overhaul of the industry, but rather taking immediate technical, operational, and low-cost measures to reduce the vulnerability of the New Caledonian industry and increase local value capture. This report responds precisely to this need by offering pragmatic and quickly implementable recommendations.

Understanding these choices requires looking at the industry on a global scale. Chapter 1 analyzes the structure, dynamics, and challenges surrounding nickel value chains. These are being restructured around two axes: on the one hand, the China-Indonesia axis, which today concentrates massive processing capacities and benefits from Indonesian nationalization policies; on the other hand, a set of initiatives led by the United States and its partners aimed at “securing” their supply and containing Chinese influence. The European Union plays a distinct but important role, emphasizing ESG standards and regulatory mechanisms aimed at promoting sectors compatible with its industrial objectives. These dynamics determine the markets, prices, and commercial alliances to which New Caledonia must adapt.

Chapter II brings together the proposed operational guidelines: first, public actions aligned with the strategy of the French government and the European Union (decompartmentalizing production chains, targeted revival of matte production to access European markets, possible renegotiation of existing industrial agreements in the context of sanctions against Russia); then private initiatives for international sectoral governance (creation of a Nickel Exploitant Forum to pool information and strengthen the negotiating position of producers upstream of production chains). These avenues are designed to be implemented in the short and medium term, at a controlled cost, and to produce concrete effects on resilience and locally captured value.

I) Structure of the nickel industry

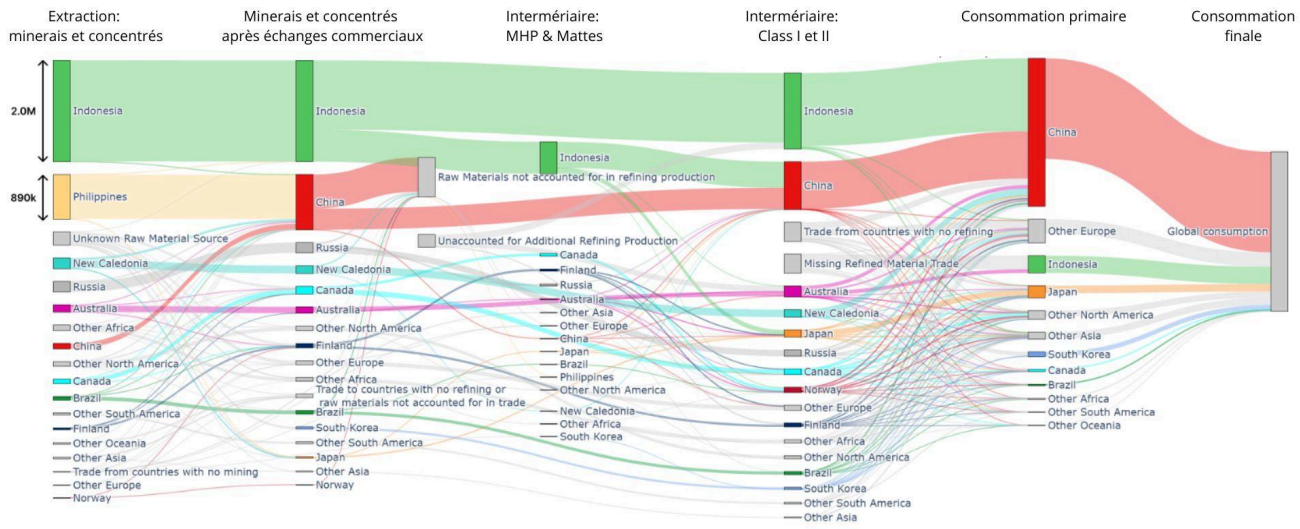
In order to better understand this section, as well as the report as a whole, it is recommended that you familiarize yourself with certain technical details regarding nickel production chains. See *Appendix 1 - Nickel production stages (technical details)*.

1. Overview of the nickel value chain organization

1.1. Two value chain axes, conflicting interests

From a geostrategic perspective, the nickel industry is structured around rivalry between global actors seeking to control the most central links in the stainless steel (66% of nickel outlets) and electric battery (16%) supply chains. Countries controlling the final stages of the value chain seek to guarantee a secure and competitive supply by leveraging geopolitical dynamics to their advantage, combining commercial, industrial, and narrative (public relations) strategies.

Figure 1. Nickel trade flows for the electric battery production chain (in tons of nickel)



Source: Table based on data from Rovjok[1]

The dominant actors in the nickel industry today is China, although its position is contested by the United States and its allies (including the European Union). Indonesia's growing role is supported by Beijing, which is the largest and main investor in Indonesian industrial capacity.

[1] Analysing changes to global nickel flows – the rise of Indonesia; Rovjok

1.2. Positive market outlook

Projections predict a 20-fold increase in global demand for nickel for electric batteries by 2040 compared to 2020 levels[2]. However, the figures observed in 2025 seem to indicate that this projection is overestimated, as the growth in electric vehicle sales has been slower than expected in Europe and the United States[3]. Indeed, there are uncertainties surrounding the development of the nickel battery market in the medium term.

On the demand side, the emergence of lithium iron phosphate (LFP) batteries, which do not necessitate nickel to be produced, is a factor of uncertainty for the future of nickel[4]. Although LFP batteries still have a limited market share and cost more than nickel-based batteries (NMC), they are gaining momentum, supported by the upcoming expiry of key patents and industrial developments in China and emerging countries[5], could significantly reduce automakers' dependence on nickel, while increasing their dependence on lithium[6].

On the supply side, the exploration of seabeds rich in critical minerals, strongly encouraged in particular by the United States 2025[7] (as illustrated by the partnerships concluded between specialized American companies and Pacific states, including the Cook Islands), as well as by China[8] (which has similar agreements with Kiribati and the Cook Islands[9]) is a potential way of diversifying nickel supplies. This metal is present in the polymetallic nodules at the heart of this emerging industry. However, the absence of any commercial exploitation to date makes it difficult to assess the future impact on current nickel producers, in terms of the transformation processes required, final costs, and volumes actually exploitable.

1.3. A crucial metal for China and the European Union

The domination of production and supply chains is of major strategic interest to both China and the European Union. Indeed, one of the main vulnerabilities of these two economies lies in their heavy dependence on hydrocarbons, with an absence of domestic production and price fluctuations linked to external shocks. To reduce this structural vulnerability, Beijing and Brussels are focusing on the electrification of their economies, particularly in the transport and industrial sectors. Europe combines this approach with the rhetoric of the fight against global warming, which it calls the energy transition. Electrification is particularly rapid in China (where electricity accounts for 30% of final energy

[2] Lithium-based batteries supply chain challenges; RMIS – Raw Materials Information System; n.d.
[3] Nickel oversupply to persist on expansion, slower demand growth, industry experts say; Reuters; 5 Juin 2025
[4] Navigating battery choices: A comparative study of lithium iron phosphate and nickel manganese cobalt battery technologies; Future Batteries; 20 Octobre 2024
[5] Electric vehicles prove a bumpy ride for battery metals; Reuters; 23 Octobre 2023
[6] De-bottlenecking the battery materials midstream; EY; n.d.
[7] Seabed Mining Interests Across the Pacific Islands; Congressional Research Services; 25 Avril 2025
[8] Between Rocks and a Hard Place: Seabed Mining in the Pacific; Asia Maritime Transparency Initiative; 29 Mai 2025
[9] A Deep-Sea Milestone: Cook Islands and China Partner on Sustainable Seabed Resource Development; Seabed Minerals Authority; 21 Février 2025

consumption)[10], while Europe (23%)[11] is struggling to build real, profitable alternatives. The importance of nickel in European strategy is illustrated by the absence of sanctions on Russian nickel, allowing imports into Europe to continue despite their contribution to the Russian economy[12].

This is the background to the significant support provided by Chinese subsidies for the purchase of electric vehicles[13]: today, in China, these vehicles have become, on average, less expensive than their combustion equivalents[14]. The sale of electric vehicles in China increased by 975% between 2019 and 2024, from 1.2 million[15] to 12.9 million units sold (including exports)[16], now accounting for almost half of all new vehicle sales[17] and one tenth of all vehicles on the road in China[18].

Besides, nickel also plays a role in other strategic segments of the energy transition, notably in the manufacture of the permanent magnets used in some wind turbines. Its electrical conductivity could, in time, make this metal indispensable to the new technologies needed for a highly electrified economy.

1.4. The USA is also interested

The objectives of the American strategy differ from those of the Chinese and Europeans. The latter benefit from a secure supply of hydrocarbons, and have no interest in electrifying their economies, other than to reduce their carbon footprint. Nickel is important for some aspects of its defence industry, but does not represent the same level of criticality as for China and the EU.

The three main drivers behind US action on nickel are :

- To guard against a total disruption of the supply chain, the consequences of which would weigh heavily on certain critical strategies (defense, aeronautics) and several key allies (Europe, Japan, South Korea).
- Counter Chinese economic expansion, by limiting Beijing's ability to escape American influence, and thus preserving geopolitical leverage. This echoes the United States' containment strategy against the USSR.
- Protect and strengthen their own industrial capabilities, notably in stainless steel production, to prevent China from gaining a disproportionate competitive advantage.

Weakening China's control over nickel is not essential to the economic survival of the United States, but is a strategic lever of pressure likely to harm their main rival.

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[10] How we made it: will China be the first electrostate?; Financial Times; 20 Mai 2025
[11] Energy statistics - an overview; Eurostat; Mai 2025
[12] What if Russia imposes nickel export restrictions?; Rovjok; 18 Octobre 2024
[13] De-bottlenecking the battery materials midstream; EY; n.d.
[14] Global EV Outlook 2025: Executive summary; International Energy Agency; 2025
[15] Chinese new energy vehicle sales drop 4% in 2019, first decline in ten years: KrEurope; 14 Janvier 2020
[16] China NEV sales at record 1.596 million in Dec, CAAM data show; CNEVPost; 13 Janvier 2025
[17] Nearly One in Every Two Cars Sold in China Was Electric in 2024; Asia Financial; 9 Janvier 2024
[18] Global EV Outlook 2025: Executive summary; International Energy Agency; 2025

It should also be noted that the USA increasingly sees seabed mining as an opportunity to diversify supplies (see Chapter I - 1.2). In addition, the Trump administration seems keen to ensure that the USA has direct, secure access to Greenland's mineral resources.

2. Axis of the People's Republic of China: The China-Indonesia partnership dominates the global nickel industry

China, as the world's leading producer of stainless steel (62.9% of the global total, all forms combined)[19] and electric batteries (66% of battery cell assemblies)[20] requires a constant supply of nickel. Yet, the country has only 3.38% of the world's reserves underground, i.e. 4.4 million tonnes of nickel contained in reserves on its territory[21]. It is therefore obliged to import nickel; securing this supply chain represents a major challenge for China. China used to import nickel ore mainly from Indonesia, but the latter introduced ore export bans in 2014, forcing the relocation of nickel processing to intermediate products and even finished products (steel and batteries) in Indonesia. Faced with this situation, China has on the one hand invested massively in Indonesian industrial capacity, leading to de facto control by Chinese capital of at least 75% of Indonesian nickel industrial capacity, and on the other hand replaced its Indonesian ore supply with Philippine ore (and, in much smaller quantities, Caledonian ore).

China maintains and reinforces its control over the nickel production chain by combining two levers. On the one hand, it exploits its central position and industrial capacities at every link in the chain to consolidate its influence in its dealings with international actors. On the other, it encourages Indonesia's nationalist policies in order to position itself as an essential partner for this country, which depends on Chinese investment to achieve its industrial ambitions.

2.1. Industrial capabilities that position China as a key actor

2.1.1. A monopsony position

Chinese companies have the industrial capacity to monopolize every link in the stainless steel and battery production chain. In 2024, China produced 39.44 million tonnes of stainless steel (finished product), i.e. 62.9% of the world total[22]; and when it comes to the production chain for electric batteries, China is particularly dominant in the advanced phases of the battery production chain, producing 70% of cathodes, 74% of separators, 82% of electrolytes, and 85% of anodes[23]. China, for example, is the

[19] Global stainless steel production grew by 7% y/y in 2024; GMK Center; 15 Avril 2025
[20] Can the World Make an Electric Car Battery Without China?; New York Times; 16 Mai 2023
[21] Pays comptant les plus grandes réserves de nickel dans le monde en 2024; Statista; 13 Février 2025
[22] Global Production Stainless Steel; GMK Center; 15 Avril 2025
[23] Friendshoring the Lithium-Ion Battery Supply Chain: Battery Cell Manufacturing; Center for Strategic and International Studies; 6 Juin 2024

destination for virtually all nickel exports from Indonesia (98% of its ferronickel and 58% of its mattes), the Philippines (98.5% of its ore)[24], and the majority of those of Russia, Australia, New Caledonia and Papua New Guinea.

The production stages controlled by China mentioned above constitute the final links in nickel value chains, with China playing a weaker direct role in the preliminary links. Global MHP production is mainly concentrated in Indonesia (145,000 tonnes per year)[25], and only 26% of the world's NPI is produced in China[26]. On the other hand, its preponderance in the advanced stages of processing gives it considerable negotiating leverage. China is the main, and often the only, buyer, capable of absorbing the world's nickel flows on a continuous, large-scale basis. This centrality makes it the key interlocutor for producing countries, reinforcing its power to set conditions throughout the industry.

What's more, China's economic and political structure gives it an additional advantage. Although it operates domestically within a capitalist economic system, the strategies of its international industrial companies are coordinated and supported by the Chinese Communist Party. This model of governance reinforces the advantages conferred by its monopsony position, as Chinese actors act in a concordant manner to the benefit of China as a whole, rather than a particular company.

2.1.2. Driven by key technological advances

Chinese engineering developed a major competitive advantage over its Western rivals when, in the years 2005-2010, it adapted the RKEF (Rotary Kiln Electric Furnace) pyrometallurgical process, previously dedicated to the treatment of rich saprolite ores, to poor lateritic ores, in order to produce Nickel Pig Iron (NPI)[27]. This has made it possible to exploit the vast resources of lateritic ores, which were previously unexploitable. However, this process is particularly energy-intensive[28].

In addition, since the 2020s, Chinese engineers have been converting the NPI from the RKEF process into nickel mattes, enabling them to pool production lines for different outlets and thus play a role simultaneously in the stainless steel and electric battery markets[29]. The first commercial use of this process dates back to 2021[30].

This technological advantage is complemented by an industrial and financial one. Indeed, China's control of downstream stainless steel value chain since the 20th century makes massive upstream investments more feasible for Chinese entities, whereas Western groups, often specialized in certain

[24] World Integrated Trade Solutions; 2023
[25] Indonesia to prioritize domestic MHP production; Fast Markets; 4 Mai 2023
[26] Top ten nickel-producing countries in 2023; Mining Technology; 25 Mars 2024
[27] Nickel industry - Part 2 - Processing nickel laterites and smelting; Nickel Institute; 7 Août 2024
[28] Nickel-Iron Production Process - Rotary Kiln - Submerged Arc Furnace Process (RKEF); SRDL; 16 Mai 2025
[29] Electric vehicles and the nickel supply conundrum: Opportunities and challenges ahead; S&P Global; 31 Décembre 2021
[30] Tsingshan starts producing EV battery raw material nickel matte in Indonesia; Mining.com; 9 Décembre 2021

stages of the production chain, place greater emphasis on short-term profits[31]. What's more, conventional investment models used in the West, such as discounted cash flow (DCF) analysis, undervalue long-term profits, which hinders their involvement in mining projects upstream of production chains. Consequently, China has been able to integrate steel mills directly at preliminary processing sites (notably at the Weda Bay and Morowali sites in Indonesia, see *Appendix II - Indonesia*), enabling it to produce stainless steel without having to remelt ferronickel. This has enabled them to reduce energy costs and thus boost productivity.

2.2. Indonesia, a key partner

From 2014, Indonesia, which holds 21% of the world's nickel reserves, took the decision to progressively ban nickel ore exports. This policy was part of a rationale to reshore nickel processing, as part of an effort to industrialize and add value to the industry. The policy has been largely successful: nickel exports have risen from $1.4 billion in 2014 to around $39 billion in 2024[32]. Since 2020, this policy of relocating production has been complemented by a policy of nationalizing production capacity: within the next two decades, at least 51% of nickel production facilities in Indonesia will have to be owned by Indonesian entities (public or private)[33].

Paradoxically, the introduction of strict protectionist policies did not hinder China, which quickly adapted and took advantage of the situation to secure its supply chain, beyond the reach of Westerners.

Appendix II - Indonesia is an in-depth report on the structure of Indonesia's nickel industry, its relationship with its partners, economic trends and the Indonesian government's strategies.

2.2.1. Indonesia's resource nationalism

Since the 2000s, the world has been experiencing a surge in resource nationalism. This economic-political movement, defined academically as "a political strategy aimed at reorienting economic production in favor of national actors and interests"[34], is rooted in a pragmatic logic: when commodity prices rise, resource-rich states impose protectionist measures such as higher taxes, local processing requirements or export bans to capture a larger share of the downstream added value. The movement has existed since at least the 1960s-70s, with an initial phase of nationalizations in Latin America, revived at cyclical intervals according to fluctuations in raw material prices. Academic sources point out that this phenomenon tends to be triggered by rises in world prices, is fuelled by internal ideological tensions

[31] Can the Philippines replicate Indonesia's nickel ore export ban success?; Project Blue; n.d.
[32] Indonesia's nickel market stranglehold tightens, again; Mine Magazine; 2025
[33] Analysis of Divestment Arrangements in Indonesia; Law Firm Suwarsit, Purgito, Susilo & Partners; 19 Septembre 2020
[34] Geography and resource nationalism: A critical review and reframing; The Extractive Industries and Society; Avril 2016

(populism, rentier states, institutional quality), and is presented as a tool for autonomy, social redistribution and economic sovereignty by local authorities[35].

With this in mind, the Democratic Republic of Congo (DRC), which accounts for 68% of the world's cobalt ore exports[36], banned the export of this metal in its unwrought form in February 2025. This ban is due to last until October 2025, after which exports will once again be permitted, but on the basis of quotas and tariffs. Interestingly, this export ban was put in place just as the USA announced that it had brokered a peace agreement between the DRC and Rwanda[37] (which mentions the exploitation of critical minerals), and that the Chinese mining group COC has come out against this ban, while Western companies, notably Glencore, have welcomed it[38]. Another recent example that will impact Eramet is Gabon, which will ban the export of manganese ore from January 1st, 2029[39]. Eramet has announced its willingness to cooperate with the Gabonese government[40].

For each of these countries, the Indonesian model of raw ore export ban and industrialization remains a benchmark. When the ban came into force, Indonesia produced just 177,000 tonnes of nickel, mainly in ore form. By 2022, Indonesia was producing 1.5 million tonnes of nickel in the form of high value-added nickel derivatives[41]. It is already home to every link in the stainless steel production chain, and now aims to host the last links in the electric battery production chain, directly building the electric cars assembled in Indonesia[42] [43].

Internationally, this policy has propelled Indonesia to the center of the chessboard. Indonesia already produced 54% of the world's nickel in 2023, and plans to produce 60% by 2028[44], positioning itself as a price-maker. Indonesia has determined that it wants to set the nickel price at around 17,000 USD/T[45]. This figure is the result of numerous considerations, both internal (keeping the price of the raw material low enough to stimulate the rest of the production chain, but high enough not to produce at a loss and attract foreign investment at the start of the chain) and external (setting a price low enough to capitalize on its competitive advantage and support its dominant position, without actively seeking to harm potential industrial partners). This search for the right equilibrium price explains the overproduction of Indonesian nickel, which led to a fall in the metal's price from 22,000 USD/T in 2018 to 11,700

[35] The Return of Resource Nationalism to Southern Africa – Introduction; Journal of Southern African Studies; 31 Octobre 2023
[36] Cobalt Ore; Observatory of Economic Complexity; n.d.
[37] Could Trump's Congo-Rwanda mineral deals actually save lives?; Responsible Statecraft; 27 Juin 2025
[38] La RDC reconduit l'interdiction d'exporter du cobalt; TRT Global; 22 Juin 2025
[39] Gabon's Manganese Export Ban Signals Shift in Africa's Resource Strategy; The Rio Times; 3 Juin 2025
[40] Réaction d'Eramet à l'annonce du Gouvernement gabonais sur l'interdiction des exportations de manganèse brut à partir de 2029; Eramet; 2 Juin 2025
[41] Mine production of nickel in Indonesia from 2019 to 2022, with a forecast for 2023 to 2027; Statista; 19 Avril 2024
[42] Official: Local Production of NETA Electric Cars to Begin Next May 2024; NETA Indonesia; 8 Mars 2024
[43] Vinfest breaks ground on new EV assembly plant in Indonesia; Vingroup; 15 Juillet 2024
[44] Indonesia - Mining by the numbers, 2024; S&P Global; 18 Septembre 2024
[45] Indonesia - Mining by the numbers, 2024; S&P Global; 18 Septembre 2024

USD/tonne in April 2020[46], and the subsequent reduction in production from 2023, which should stabilize the price around the target amount.

2.2.2. Indonesia, a Chinese fortress

China has been remarkably successful in capitalizing on Indonesia's protectionist policy, not only securing a stable supply of nickel, but also shielding this supply from possible Western disruptions.

China has succeeded in turning Indonesian industry into an industrial ally by providing Indonesia with massive direct investment. It is estimated that Chinese companies have injected between $15 and $30 billion into the Indonesian nickel industry since 2012[47]. These Chinese private investments were supported on most occasions by loans from Chinese public banks[48]. Few Western investors have been able to follow the Chinese initiative, as they do not have the same financial capabilities as Chinese groups backed by public money. Notable exceptions include Vale (Brazil) and, to a lesser extent, Eramet (France) and Sumitomo Metals Mining (Japan), which have teamed up with Chinese partners to enter the Indonesian market. The latter hold shares in the Morowali[49], Weda Bay[50] and the Sorowako mine[51], but remains a minority shareholder. Overall, Chinese capital now controls the bulk of the Indonesian industry: an in-depth study tracing the ownership chains of nickel mining companies in Indonesia estimates that China controls around 75% of Indonesian mining and industrial capacity[52]. In addition, the study reveals that many Indonesian companies are dependent on Chinese capital, suggesting that Chinese control extends beyond purely Chinese shareholding.

Despite the fact that this Chinese contribution greatly benefits Indonesia's industrialization ambitions, it tends to be represented in a more mitigated way by the Indonesian government and population. Indeed, Indonesia is not naturally close to China: heir to a tradition of non-alignment, Indonesia opposes China over the South China Sea and regularly conducts military exercises with the United States[53]. Indonesia is thus seeking to avoid significant industrial dependence on China and diversify its investor base[54]. However, Western investors are unable to meet Chinese criteria. Indeed, China's control over the downstream value chain for electric batteries makes upstream investments more feasible, while Western groups, often specialized in certain stages of the production chain, place greater emphasis on short-term

[46] Nickel - pureté de 99,80 % - LME (London Metal Exchange) - Au comptant - Prix en dollars par tonne; Institut de la Statistique et dese Etudes Economiques; 21 Mai 2025
[47] PacNet #55 – Centralizing Indonesia's nickel industry: The true costs of Chinese investments; Pacific Forum; 8 Août 2024
[48] Tsingshan Group Secures 10-year Loan of $384 Mln for NPI Smelter in Indonesia; Shanghai Metals Market; 18 Février 2014
[49] Vale signs agreements with Chinese companies to reinforce strategic agenda in Asia; Mining.com; 29 Mars 2023
[50] The Weda Bay Nickel project; Eramet; n.d.
[51] Sumitomo Metal Mining Announces PTVI Divestment Agreement with MIND ID; Sumitomo Metals Mining; 27 Février 2024
[52] Refining Power; C4ADS; 4 Février 2025
[53] "Super Garuda Shield" : l'Indonésie est-elle en train de devenir une alliée des États-Unis ?; Asialyst; 10 Septembre 2022
[54] Indonesia moves to reduce Chinese ownership of nickel projects; Financial Times; 25 Juillet 2024

profits[55]. What's more, conventional Western investment models, such as discounted cash flow (DCF) analysis, undervalue long-term profits, which hampers their commitment to upstream mining projects. Westerners, unable to compete with China's hegemony in Indonesia, have challenged these decisions through multilateralism (notably through recourse to the WTO)[56], but no concrete results are expected at this level[57].

To remedy the problem of increasing dependence on China, Indonesia has developed a strategy of nationalizing nickel production capacity: all new industrial projects involving Indonesian nickel must now include a progressive nationalization plan that transfers 51% of the capital to Indonesian entities. With Chinese capital having infiltrated Indonesian capital, as mentioned above, the government favors nationalization by public entities, but the lack of financial capacity tends to favor takeover by private entities.

The relationship between China and Indonesia is detailed in *Appendix II - Indonesia*.

In conclusion, China's support for Indonesia's protectionist policies, in the form of massive investment, has led to the sanctuarization of Indonesian nickel for its own benefit, putting it beyond the reach of Western actors, while satisfying the economic interests of its Indonesian partner.

2.3. China's weakness: ore supply

Despite China's resilience, its supply chain has several weaknesses. One weakness in China is the fact that many jobs in China still depend on the import of nickel ores in order to feed early-stage processing plants, inherited from the period prior to the Indonesian protectionism of 2014. By way of illustration, we estimate that between 20,000 and 35,000 jobs in China are directly dependent on NPI production[58]. In order to avoid a drop in Chinese production at the front end of the line, China is banking on Indonesian ore being replaced by ore from other countries, in particular the Philippines. The latter has seen its nickel ore exports rise sharply in a decade, having exported 20 million dry tonnes to China in 2011 compared with around 33 million dry tonnes in 2023. This increase in production has been stimulated by Chinese investment in mining capacity in the Philippines.

Appendix III - Philippines is a report on the nickel industry in the Philippines, and its links with Chinese and American interests.

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[55] Can the Philippines replicate Indonesia's nickel ore export ban success?; Project Blue; n.d.
[56] European Union initiates WTO dispute case against Indonesian restrictions on raw materials; World Trade Organization; 27 Novembre 2019
[57] Indonesia president says likely to lose WTO nickel dispute against EU; Business Times; 9 Septembre 2022
[58] According to a comparative estimate based on IMIP in Indonesia (where ~48,000 jobs are linked to production of 600,000 t of NPI-containing nickel), China, with annual production of around 400,000 t, would mobilize around 25,000 direct jobs. This calculation takes into account certain endogenous factors, such as higher productivity in China, due to more advanced automation and industrial integration.

Papua New Guinea is another country that has benefited from direct Chinese investment in its extractive capacities to meet China's nickel supply needs. The latter opened the Ramu mine in 2012, producing 31,000 tonnes of contained nickel per year, which is exported to China in the form of MHP (preliminary processing)[59].

Appendix V - Papua New Guinea is a report on the nickel industry in Papua New Guinea, and its role in international geopolitics.

In addition, Russian nickel exports, previously mainly destined for Europe (notably Finland), have been largely redirected towards China, once again placing the latter in a monopsony situation vis-à-vis its Russian partner. However, due to their mineralogical origin, these Russian ores are in the form of sulfides (Ni + sulfur) associated with precious metals such as platinum or palladium. Their metallurgical treatment therefore differs profoundly from that of oxidized ores (Ni + O). Consequently, although their refining in China is possible and already in operation[60], increasing such refining capacities would require major investment, as they are not interoperable with ores from other Chinese sources.

3. Axis of the United States of America: A dual strategy of securing and containing their rival

Nickel also follows a second production axis, this one dominated by the United States of America and its partners. US control over nickel is less clear-cut than China's, due to the very nature of US governance. Indeed, US policy is primarily defined by the actions of private companies, and the state plays a comparatively less central role than in China, its activity would be better described as facilitating the strategies of private companies than driving them, unlike China.

While analysis of production results reveals Chinese industrial domination, analysis of the market capitalization of nickel mining companies reflects financial domination by Western actors[61]. Indeed, among the top 10 listed companies are BHP (Australia), Glencore (Switzerland/UK) and Vale (Brazil), respectively capitalized at around 125 billion[62], 50 billion[63] and 44 billion USD[64]. By 2023, these three companies were producing 81 kt[65], 98 kt[66] and 165 kt[67] of contained nickel, a total of 344 kt, in the form

[59] Ramu Nickel Cobalt Project; Mineral Resources Development Company; n.d.
[60] What if Russia imposes nickel export restrictions?; Rovjok; 18 Octobre 2024
[61] Top ten nickel-producing countries in 2023; Mining Technology; 25 Mars 2024
[62] BHP Group Limited (BHP); Stock Analysis; 8 Juillet 2025
[63] Market capitalization of Glencore (GLCNF); Companies Market Cap; Juillet 2025
[64] Vale SA ADR; Statmuse; Juillet 2025
[65] REG - BHP Group Limited - Quarterly Activities Report; Stockopedia; 17 Juillet 2024
[66] Full Year 2023 Production Report; Glencore; 1 Février 2024
[67] Vale's 2023 nickel output drops 8% on year to record low; My Steel; 1 Février 2024

of high value-added products. By way of comparison, Jinchuan Group Co. Ltd. is the Chinese nickel mining company with the highest market capitalization (excluding CMOC China), with a nominal annual production capacity of 230 kt of nickel content[68], but only capitalized at 1 billion USD[69]. It should also be noted that the largest nickel producer by volume, Tsingshan Holding, will produce 1.12 million tonnes of contained nickel in 2023[70] (!), is not listed on the stock exchange but is owned by private Chinese holding companies[71].

The high valuation of Western producers on financial markets reflects their greater capacity to raise private financing and integrate into global financial systems, thanks to their more attractive internal corporate structure, diversified activities and geographical presence, and transparent, regulated corporate governance.

Thus, it is mainly private groups owned by capital from US partner countries that secure US supply chains; from mineral extraction in the Philippines (Nickel Asia Corporation - Sumitomo Metals Mining, Eramen Minerals Inc. - American capital, Philippine companies), New Caledonia (Eramet, Glencore, Vale), Australia (BHP, other Australian companies) and Brazil (Vale, Anglo-American); to processing in Japan (Sumitomo Metals Mining, Nissan Chemical Corporation, other Japanese companies), South Korea (Posco and others), Taiwan (Taiwanese companies), to the end of the production chain for stainless steel and battery assembly in the USA (Ford, ATI Inc.., Carpenter Technology Corporation, Electra Battery Materials...) and in Europe (BASF, Umicore, Acerinox...).

However, this production chain has certain weaknesses. That's why the United States has developed a defensive strategy of sealing off its bloc from China, coupled with an offensive strategy of containment aimed at hitting the Chinese economy.

3.1 Defensive efforts: Strengthening supply chain resilience

3.1.1. Sustainability: ESG criteria, a tool for securing supplies

[68] Jinchuan Group Co. Ltd.; n.d.
[69] Jinchuan Group International Resources Co. Ltd. (2362); HK Exchange; 27 Mars 2025
[70] Chinese nickel giant Tsingshan Group's nickel output rose 27% in 2023 to a record 1.12 million metric tons nickel unit; Mining.com; 7 Février 2024
[71] Epic squeeze!The shareholding structure of Tsingshan Holdings, China's largest private steel company, was exposed; iNEWS; 11 Juillet 2025

The United States, the European Union, Australia and Canada rely on their dominant position as major consumers of electric batteries and stainless steel to impose their production standards through environmental, social and governance (ESG) standards, enabling them to artificially reduce the competitiveness gap with highly industrialized countries.

Indeed, ESG standards enable economies driven by the tertiary sector and consumption - the Western economies - to offset the structurally higher costs of their industries in the face of low-cost economies dominated by the secondary sector - such as China or Indonesia. By imposing these standards on imported products, Western economies artificially recreate a form of competitive parity, by making products from less virtuous sectors more expensive to import. The European Union illustrates this logic perfectly with the progressive implementation of the Carbon Border Adjustment Mechanism (CBAM), which will impose a carbon tax of USD 4,165 per tonne of nickel imported from China or Indonesia, starting in 2026[72]. This increase will bring the cost of Indonesian nickel into line with the cost of New Caledonian nickel. Canberra, Washington and Ottawa are also following this ESG strategy by founding the Energy Resource Governance Initiative (ERGI)[73]. This initiative raises awareness and trains professionals from partner countries (Botswana, Peru...) in ESG management, which then leads to financial, technical, and interpersonal links with Western actors. A delegation from New Caledonia took part in a training session under this program in June 2023[74].

In addition, Brussels, Canberra and Washington have introduced subsidy policies to support environmentally and socially "virtuous" companies[75]. Brussels even plans to release such subsidies to non-European companies[76]. This openness reflects a desire to encourage the global dissemination of high standards in sustainable development, thereby facilitating the creation of an international framework aligned with the values, interests and technical expertise of Western countries. Indeed, the solutions put forward by the rhetoric of the fight against global warming and the promotion of sustainable development call on areas of expertise that are highly mastered by Western actors (energy transition, renewable energies, sustainable resource management, ecological innovations, ESG reporting, etc.). This de facto consolidates their position in global value chains. So, while ESG standards represent a constraint that many Western companies perceive as a competitive disadvantage due to the additional costs they entail, in the long term they offer a comparative advantage for Western economies.

However, the effectiveness of this strategy depends directly on the size and attractiveness of the market to which it applies: if it is large enough to justify the investment required to achieve compliance, it acts as a powerful lever of influence. Conversely, if this market represents only a marginal fraction of

[72] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024
[73] Energy Resource Governance Initiative (ERGI); Bureau of Energy Resources; n.d.
[74] Encourager le développement de nouvelles approches dans le secteur minier; Gouvernement de Nouvelle-Calédonie; 7 Juillet 2023
[75] De-bottlenecking the battery materials midstream; EY; n.d.
[76] EU selects 13 non-EU strategic raw material projects; Argus Media; 4 Juin 2025

global outlets, the economic incentives to meet ESG criteria diminish considerably, compromising the policy's normative reach. This is where China is trying to emancipate itself from Western directives. As regards the market for electric batteries, China has developed a vast domestic market for electric vehicles, supported by massive public subsidies[77]. Over the period January-May 2025, while 1.6 million electric vehicles were sold in the European Union and 700,000 in the United States, China accounted for 4.4 million sales[78]. To qualify this difference, it should be noted that the unit selling price in Europe and America is more than twice that in China: the median price for an electric car in Europe and the United States is around 60,000 USD and 70,000 USD[79] [80], compared to 23 000 USD in China[81]. Nonetheless, the emergence of the Chinese market limits the effectiveness of EU measures: Chinese producers may turn to their domestic market rather than adapt their standards to European requirements.

Another point of vulnerability lies in the fact that ESG requirements can act as a brake on certain foreign investments from Western players. Indonesia is a case in point: despite its explicit desire to reduce its industrial dependence on China[82], it has not been able to attract sufficient ESG-compliant investment. This has led to a transfer of industrial opportunities to China, strengthening its position in strategic value chains. Furthermore, the Trump administration's disengagement from ESG standards weakens the coherence of this strategy[83], reducing the scope and effectiveness of this approach in a fragmented geopolitical context (see *Chapter I - 3.3.1)*.

In conclusion, the adoption and promotion of ESG standards is a deliberate strategy by Western powers to structure global value chains according to their own standards. By imposing these requirements on foreign producers wishing to access their markets, the United States, the European Union, Australia and Canada seek to offset their disadvantage in terms of industrial costs, while consolidating their normative leadership. This voluntary exclusion mechanism tends to favor companies capable of complying with ESG criteria, while excluding competitors who are more competitive in terms of gross costs, but less aligned with these standards. However, the effectiveness of this strategy hinges on two major conditions, both of which are now highly contested: firstly, that Western markets retain their status as unavoidable global outlets, and secondly, that these countries maintain sufficiently strong political coordination to impose a coherent standard. If these conditions are met, ESG standards will not only be a lever for environmental regulation, but also a structuring strategic tool, enabling Western economies to maintain their industrial influence despite high production costs.

3.1.2. Security: the formation of an anti-China bloc

The United States is implementing a series of tax and trade policies designed to secure its supply chain for critical raw materials. These schemes offer economic and tax advantages to partner countries,

[77] De-bottlenecking the battery materials midstream; EY; n.d.
[78] Global EV Sales Grow 28% in 2025; Rho Motion; 13 Juin 2025
[79] How Much Are Electric Cars?; Kelley Blue Book; 25 Juin 2025
[80] The average EV retail price in the biggest markets; EV Boosters; 6 Octobre 2022
[81] China's EV price war is heating up. What's behind the big discounts?; CNBC; 29 Mai 2025
[82] Indonesia moves to reduce Chinese ownership of nickel projects; Financial Times; 25 Juillet 2024
[83] ESG Watch: New SEC rules under Trump turn up the heat for sustainable investors; Reuters; 18 Mars 2025

provided they exclude Chinese companies from their production chains. In concrete terms, these partners can benefit from preferential tariff conditions on exports to the United States or to Washington's allies, as well as easier access to financing or direct investment, provided they are strategically aligned with American interests. Several institutional frameworks support this strategy, including the Minerals Security Partnership (MSP), the Inflation Reduction Act (IRA) and the Indo-Pacific Economic Framework (IPEF).

Minerals Security Partnership (MSP)

The Minerals Security Partnership (MSP) is a U.S.-led international initiative to ensure a secure, diversified and sustainable supply of critical minerals needed for the U.S. economy and national security[84]. Mirroring China's Belt and Road Initiative strategy, the MSP brings together 14 member countries and the European Union (via the European Commission): Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, Norway, South Korea, Sweden, the UK and the USA. Chinese entities are systematically excluded from this partnership.

One of the MSP's key mechanisms is the creation of the Finance Network[85], which brings together member countries' development finance institutions (DFIs) and export credit agencies (ECAs) (Export Finance Australia, AFD, BRED, etc.). The network aims to bridge the financing gaps faced by many strategic mining projects by facilitating access to concessional loans, loan guarantees or direct investment. The mechanism is also designed to attract private sector financing by reducing their perception of risk. It was in this context that the Export-Import Bank of the United States (EXIM) shared a letter of interest for a USD 600 million loan to Australian Strategic Materials (ASM) for its Dubbo Project rare earths project.

In parallel, the MSP Forum was set up to structure relations with critical minerals-producing countries that are not permanent members of the MSP, but have strategic reserves and wish to integrate into more complex value chains. The MSP Forum partners are: Argentina, Democratic Republic of Congo, Dominican Republic, Ecuador, Greenland, Kazakhstan, Mexico, Namibia, Peru, Philippines, Serbia, Turkey, Ukraine, Uzbekistan and Zambia. The Forum provides an opportunity to discuss the conditions for implementing concrete projects.

Although the MSP remains discreet about the details of its actions, its involvement in certain projects has been reported. For example, in Zambia and the Democratic Republic of Congo, the MSP has initiated efforts to structure the Lobito corridor around the production, refining and, above all, the transportation of copper and cobalt[86]. Discussions have apparently been opened in Namibia, concerning local lithium processing projects, and in the Philippines, concerning the development of nickel processing projects of

[84] Minerals Security Partnership, United States Department of State; n.d.
[85] Joint Statement on Establishment of the Minerals Security Partnership Finance Network, United States Department of State; 23 Septembre 2024
[86] Developing Electric Vehicle Battery Supply Chains for Inclusive and Sustainable Growth: Opportunities and Challenges in Zambia and the Democratic Republic of the Congo from SAFE and the U.S. State Department's Battery Council Workshops; SAFE (Center for Critical Minerals Strategy); 2024

the HPAL (High Pressure Acid Leach) type, although the direct involvement of the MSP in the latter two negotiations has not been clearly established.

Inflation Reduction Act (IRA)

Another pillar of this strategy is the Inflation Reduction Act (IRA), enacted in 2022 by the Biden administration. This Biden administration law (2022) introduces the principle of friend-shoring, whereby producers aligned with US interests can benefit from tariff reductions and investments in their local mineral processing capacities, ensuring local industrial spin-offs. These benefits apply not only to countries with direct trade relations with the US, but also to those that are part of value chains integrated into the US economic ecosystem.

For example, the Philippines can claim these benefits, not because of direct trade with the USA in nickel, but because of its position in an integrated regional value chain, via Japan, a key partner of the USA[87]. This positioning places them de facto within the American sphere of economic influence, outside the Chinese orbit. *Appendix III - Philippines* details the links between the Philippine nickel industry and the USA and its allies and China.

Indonesia also illustrates this dynamic. Local authorities are in talks with South Korean and Japanese investors to develop new smelters, in which Chinese players would have a stake of less than 25%[88]. This exclusion is designed to ensure that projects are compatible with IRA criteria, a prerequisite for access to downstream benefits[89].

Indo-Pacific Economic Framework (IPEF)

Finally, the Indo-Pacific Economic Framework (IPEF) is another vector of American influence. Led by the United States, Japan, Australia, Korea and several ASEAN countries (including the Philippines), this multilateral framework includes a "supply chain" pillar dedicated to critical raw materials[90]. This open multilateral platform aims to finance infrastructure, promote R&D and coordinate ESG standards in the extractive sector.

Bilateral negotiations

Alongside these multilateral initiatives, the United States also conducts targeted bilateral negotiations with countries with critical resources. For example, the Philippines is currently negotiating a sectoral free trade agreement with the USA, which would include Philippine mining resources[91]. The

[87] U.S., Japan, Philippines Boost Ties With Chip, Nickel Deals for Luzon; The Wall Street Journal; 12 Avril 2024
[88] Indonesia Trying to Cut China Stakes in New Nickel Projects: FT Reports; Bloomberg; 25 Juillet 2024
[89] Indonesia moves to reduce Chinese ownership of nickel projects; Financial Times; 25 Juillet 2024
[90] Quad-ASEAN Technology Cooperation for Critical Minerals Supply Chains; Center for Social and Economic Progress; 12 Janvier 2024
[91] PH eyes 'sectoral FTA' with US under Trump; Business Inquirer; 12 Février 2025

threat of tariffs from the United States is also generating numerous discussions at bilateral level, particularly on trade policy issues, but also on strategic and industrial issues[92].

In short, the United States is building a selective integration strategy based on a binary principle: a strengthened partnership with advantageous economic conditions for actors excluding any integration of Chinese interests, or, failing that, an uncompromising sidelining. This system is a major lever for structuring an economic bloc that is impervious to Chinese industrial influence.

3.2 Offensive effort: Striking at China's productive capacity

3.2.1. Taking advantage of Chinese vulnerabilities: disrupting ore supplies

One of the major weaknesses of the Chinese economy lies in its dependence on supplies of raw nickel ore (see *Chapter I - 2.3.*). Indeed, since the successive nickel export bans imposed by Indonesia in 2014 and then reinforced in 2020, China has been forced to redirect its imports to other suppliers. The Philippines have thus become a critical source of substitution: they now account for between 75% and 92% of China's nickel ore imports[93]. In return, China absorbs 98.5% of Philippine exports in this sector[94]. Losing access to this ore could bring China's primary processing industry to a halt, jeopardizing between 20,000 and 35,000 direct industrial jobs (see *Chapter I - 2.3.*).

This dependence gives the Philippines a strengthened strategic position. Manila has a strong political and economic convergence with the United States. In this context, the Philippine authorities are currently considering the introduction of an export ban on nickel ore, inspired by the Indonesian precedent. Such a measure would deal a severe blow to Chinese interests, seriously compromising their ability to secure supplies in the short term. It would force Beijing to shut down part of its processing infrastructure, with negative economic and industrial consequences. Such a decision cannot reasonably be interpreted as an isolated choice: it very likely implies implicit or explicit support from the United States, or even a commitment to compensatory investment.

Recent announcements of local processing investments by foreign actors close to the United States seem to indicate industrial support: opening of a third HPAL plant by Nickel Asia Corp.[95], joint-venture project between Posco and Nickel Prime Solutions Inc.[96]. It cannot be ruled out that the proposed ban may also be the subject of a geopolitical quid pro quo between the Philippines and the United States on issues not directly related to nickel, a hypothesis which, however, falls within the confidential scope of diplomatic negotiations.

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[92] Indonesia, US eye wider critical minerals partnership after 'positive' meeting, top negotiator says; Reuters; 10 Juillet 2025
[93] Nickel prices up with Indonesia buying ore from the Philippines; My Steel: 30 Août 2023
[94] World Integrated Trade Solutions; 2023
[95] Nickel Asia weighs opportunities in EV industry; The Philippine Mining Club; 23 Janvier 2023
[96] POSCO Future M to produce nickel for cathodes in the Philippines; The Korea Economic Daily; 18 Août 2023

Indeed, this strategy, supported by the Philippine government, is strongly contested by local manufacturers, who denounce the country's lack of preparation. The absence of a clear regulatory framework, inadequate industrial infrastructure, low levels of foreign investment, high energy prices and major technical shortcomings are all factors likely to compromise Philippine industrial capacity[97]. To qualify the idea of an approach strictly directed against China, it should be noted that the Philippines have also signed a partnership with the Chinese company Huayou Cobalt for the construction of an HPAL plant[98], indicating that a lack of Western support could have a counter-productive effect on the American strategy.

To sum up, in the short term, a ban on nickel ore exports would significantly penalize China. In the longer term, it could enable the Philippines to become a key pillar of Western strategy on critical minerals, similar to the strategic role China has succeeded in playing with Indonesia. The success of this reorientation will, however, largely depend on the ability of the USA and its allies to provide sufficient industrial, financial and technological support, similar to what China has managed to achieve in Indonesia.

Annex III - Philippines provides further details on the state of the local nickel industry and the practical implications of this measure in the context of international economic relations.

3.2.2. Challenging the Chinese stronghold: wooing Indonesia

In addition to this attempt to hit the Chinese economy, the USA is trying to challenge the resilience of the Chinese supply chain, particularly in Indonesia. The strategic objective is to create points of vulnerability in China's supply architecture, even as Beijing accelerates its transition to an electrified economy. If Indonesian nickel producers were to switch to the USA, this would be a major disadvantage for China. With this in mind, Washington is attempting to challenge China's influence in its main supply stronghold: Indonesia.

With this in mind, private actors such as PT Freeport (a subsidiary of an American mining group operating in Indonesia), and the European Union, supported by the United States, have taken legal action before the World Trade Organization (WTO) to challenge Indonesia's protectionist nickel policies[99]. Although the WTO ruled on the whole in favor of the complainants, no binding executive measures were imposed on Indonesia, which maintained its position[100] (see *Appendix II - Indonesia*).

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[97] Following Indonesia's Ban on Ore Mining? Can the Philippines' "Ore Mining Ban" Policy Impact the Nickel Industry; Shanghai Metals Market; 9 Mai 2025
[98] Huayou Cobalt to Build HPAL Plant in the Philippines; Shanghai Metals Market; 20 Avril 2023
[99] European Union initiates WTO dispute case against Indonesian restrictions on raw materials; World Trade Organization; 27 Novembre 2019
[100] Indonesia president says likely to lose WTO nickel dispute against EU; Business Times; 9 Septembre 2022

In parallel with these legal challenges, the U.S. has sought to forge a more cooperative relationship with Jakarta. In November 2023, the United States under the Biden administration and Indonesia under the Widodo administration entered into a Global Strategic Partnership, focused specifically on advancing joint interests in nickel, cobalt and other critical minerals[101]. As part of this partnership, the two countries have begun discussions to set up a sector-specific free trade agreement for critical minerals[102]. In July 2024, visiting US Deputy Secretary of State Jose Fernandez raised the idea of creating a "critical minerals forum" and encouraged Indonesia to join the Minerals Security Partnership[103]. The implicit aim of these proposals is to encourage Indonesian mining companies to comply with Western ESG standards and gradually break away from the Chinese sphere of influence.

Nevertheless, these efforts remain hampered by two major obstacles: on the one hand, the investment differential, with the US not matching the levels of financial and industrial commitment of Chinese companies in Indonesia; on the other, US reluctance to fully comply with Indonesian rules on local processing and partial nationalization, which are a prerequisite for long-term projects in the country.

The United States is also seeking to reduce Chinese influence in Papua New Guinea. Papua New Guinea, which received Chinese investment for the development of its first nickel mine and now exports mainly to China, simultaneously enjoys strong support from the American Embassy in Port Moresby and the European Union Delegation. Both actively support the company's membership of the Strategic Minerals Partnership[104]. A second nickel processing project is currently being studied in the country, this time with a majority of Australian capital (see *Appendix V - Papua New Guinea*).

The arrival in power of the Trump administration has not fundamentally changed the objectives of the strategy pursued, but it has modified the modalities of action. The new government favored a coercive approach, threatening Jakarta with high tariffs on certain exports to the United States. This pressure led to the reopening of bilateral discussions with a view to redefining the commercial and strategic foundations of the relationship[105]. The results of these negotiations are expected in August 2025[106].

3.3. Trump: an upheaval in American strategy?

[101] Joint Statement from the Leaders of the United States and the Republic of Indonesia: Elevating Relations to a Comprehensive Strategic Partnership; White House Archives; 2023
[102] PacNet #55 – Centralizing Indonesia's nickel industry: The true costs of Chinese investments; Pacific Forum; 8 Août 2024
[103] Mineral security partnership and energy geostrategy; Indonesia Business Report; 6 Août 2024
[104] Papua New Guinea attends Launch of the Multilateral Minerals Security Partnership Forum, Délégation de l'Union Européenne en PNG, Avril 2024
[105] Indonesia, US eye wider critical minerals partnership after 'positive' meeting, top negotiator says; Reuters; 10 Juillet 2025
[106] Indonesia and the US to Accelerate Tariff Negotiations in Three Weeks; Kompas; 10 Juillet 2025

3.3.1. The Trump administration changes its approach while maintaining the same objective

The arrival of the Trump II administration in the White House has led to a restructuring of the US strategy for securing their critical minerals supply chains, although the paradigms remain the same. While the "Sustainability" component has largely been abandoned by the Trump administration, the "Safety" component has been strengthened. and from a more global perspective, the US is reducing its need for nickel and seeking alternative sources of supply.

The promotion of ESG standards has suffered a significant setback. The Trump administration has cut many federal funds dedicated to universities[107], research programs[108], and investment funds linked to climate resilience and green energies. For example, $20 billion from the Greenhouse Gas Reduction Fund has been redirected[109], and USAID's ESG project activities have been massively scaled back (if not entirely shut down)[110]. At the same time, the United States' withdrawal from the Paris Agreement[111] and the dismantling of domestic monitoring mechanisms[112] have undermined the legitimacy of the U.S. in promoting these criteria internationally. Lastly, the elimination of all subsidies for the purchase of electric vehicles by the One Big Beautiful Bill (OBBB) was a major step forward[113] (30D tax credit, credit for used vehicles and charging stations, etc.) will lead to a mechanical rise in the cost of EVs, eroding domestic demand for batteries and further weakening the demonstration of "clean" competitiveness that the United States could put up against its partners.

Conversely, the "safety" dimension of the policy has become more offensive. Starting in 2026, the OBBB will extend the definition of Foreign Entity of Concern to all subsidies and credits related to strategic industries, with zero tolerance for Chinese participation[114]. Whereas the IRA set a threshold of 25% ownership or control, the OBBB lowers it to 0%, automatically excluding any project dependent on Chinese equipment or capital. At the same time, the administration is making it easier for allied countries to invest in the United States via the "America First Investment Plan", a fast-track procedure for capital deemed "reliable"[115].

In addition, there has been a change in the governance of critical minerals, with the Department of Defense (DOD) now taking the lead on projects involving these minerals. Indeed, the OBBB has created several funds (tens of billions of dollars in loans and grants) dedicated to the acquisition and production of

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[107] What Trump's Proposed Budget Cuts Mean for Education, Research; Inside Higher Ed; 2 Mai 2025
[108] How the Trump administration is already cutting off climate research; Washington Post; 5 Juillet 2025
[109] L'administration de Donald Trump bloque 20 milliards de dollars destinés à des ONG environnementales; Vert; 5 Mars 2025
[110] USAID slashes over 5,500 contracts, including scores of climate projects; E&E News; 3 Avril 2025
[111] US withdrawal from the Paris Climate Agreement and from the WHO; Parlement Européen; 5 Février 2025
[112] 'A ruthless agenda': charting 100 days of Trump's onslaught on the environment; The Guardian; 2 Mai 2025
[113] One Big Beautiful Bill passed by US Congress; SFA Oxford; 4 Juillet 2025
[114] Impacts of the One Big Beautiful Bill Act on the Mining Sector; Center for Strategic and International Studies; 9 Juillet 2025
[115] President Trump Announces "America First Investment Policy" to Promote Investments from Allies and Enhance Restrictions on China; Wiley; 24 Février 2025

strategic resources, a substantial part of which is reserved for DOD programs[116], while phasing out IRA tax incentives[117]. Nickel, while useful in certain aerospace sectors, does not represent a vital strategic weakness for the DOD. The military is more inclined to focus its forces on other strategic minerals, such as tungsten, of which China holds 90% of the world's reserves and which is needed to make armor-piercing warheads.

In addition, Trump II has revived the exploration and exploitation of deep-sea mining. The National Oceanic and Atmospheric Administration has been instructed by federal order to accelerate the issuance of mining permits, both in US and international waters[118], effectively bypassing the International Seabed Authority (ISA). This choice aims to diversify supplies of critical minerals without requiring investment to build local processing capacity, but raises significant ecological and technical unknowns.

The stated priority of "reshoring" and reindustrialization is struggling to be translated into coherent macro-economic policy: no competitive devaluation of the dollar, no targeted elimination of customs duties on intermediate goods, and no vast manpower training plan has been adopted. On the contrary, the administration is pushing for the expulsion of low-cost workers and maintaining a strong currency, making massive industrial relocation unlikely. The public discourse on "Made in America" serves above all as negotiating leverage with each partner.

To sum up, the Trump II administration is reducing the "green" component of US strategy, reinforcing the isolation of Chinese actors and concentrating financial and regulatory leverage in the military and submarine fields. This approach, focused more on narrowly securing than on the global dissemination of ESG standards, marks a clear break with previous climate diplomacy.

3.3.2. Towards European emancipation?

The European Union's strategy aims to reinforce strategic autonomy in critical raw materials. The Critical Raw Materials Act (CRMA), passed in 2023, defines quantified objectives: by 2030, at least 10% of European extraction needs, 40% of refining/processing needs and 25% of recycling needs must be covered by the raw materials industry[119]. No sensitive stage (extraction, transformation, batteries) may be more than 65% dependent on a single non-European supplier[120]. This framework is accompanied by facilitation measures (simplification of permits, research, financing) and resilience measures (stress tests on critical chains), in line with the industrial Green Deal. As the press emphasizes, these objectives are designed to "break the stranglehold" of China on the processing of critical metals, even if their realization

[116] One Big Beautiful Bill passed by US Congress; SFA Oxford; 4 Juillet 2025
[117] One Big Beautiful Bill passed by US Congress; SFA Oxford; 4 Juillet 2025
[118] Environmental groups fear Trump's order to speed deep-sea mining will harm ecosystems; Associated Press; 26 Avril 2025
[119] Regulation (EU) 2024/1252 of the European Parliament and of the Council of 11 April 2024 establishing a framework for ensuring a secure and sustainable supply of critical raw materials and amending Regulations (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1724 and (EU) 2019/1020 (Text with EEA relevance); Eur-Lex; n.d.
[120] Critical Raw Materials Act; Commission Européenne; n.d.

will have to overcome obstacles such as the high cost of capital and lengthy administrative procedures (some mining permits still take a decade)[121].

Sustainability: the European Union pioneers the way

To secure its supply of critical minerals, the European Union is pursuing its strategy of promoting ESG standards (see *Chapter I - 3.1.1.*).

The Corporate Sustainability Reporting Directive (CSRD) requires detailed, standardized and verified reporting on environmental and social impacts, based on the "double materiality" principle, from almost 50,000 EU companies (compared with 11,000 previously)[122] ; the Corporate Sustainability Due Diligence Directive (CSDDD), adopted in 2024, obliges large companies to introduce due diligence and ecological transition plans for companies with more than 1,000 employees[123] ; and the Batteries Regulation, which came into force in 2024, imposes strict obligations on batteries in terms of sustainability, traceability, and recycled content of materials used in electric batteries and sets strict recycling targets (high recovery rates for cobalt, lithium and nickel)[124]. This latest regulation contributes to the development of a battery recycling industry, which would reduce Europe's need for imports. Indeed, the European Union is aiming for a 25% recycling capacity for electric batteries by 2030[125].

These regulations are intended to be exported abroad, with the aim of creating a universality of ESG criteria, which would considerably strengthen the competitiveness of European producers and the position of the West in global value chains. The new Carbon Border Adjustment Mechanism (CBAM) tax is a perfect illustration of this logic: it is a tax mechanism designed to protect the competitiveness of its industries against carbon-intensive Chinese and Indonesian imports. More indirectly, the regulation on forced labor (December 2024) is also part of this strategy. By prohibiting the import into the European market of any product derived from forced labor, Europe manages to exclude from its market certain products and processes according to its own criteria.

However, since Donald Trump came to power in January 2025, the European Union has adjusted certain ESG frameworks downwards, so that they represent a lower cost to their competitiveness[126]. For example, the European "Omnibus package" adopted in June 2025 has eased some of the obligations of the CSDDD

[121] EU sets critical mineral goals, but faces struggle to hit them; Reuters; 18 Décembre 2023
[122] Corporate Sustainability Reporting Directive (CSRD), explained; Normative; 23 Mai 2025
[123] Corporate sustainability due diligence; Commission Européenne; 26 Février 2025
[124] Circular economy: New law on more sustainable, circular and safe batteries enters into force; Commission Européenne; 17 Août 2023
[125] EU-Indonesia CEPA: A New Frontier for Critical Raw Materials and Strategic Supply Chain Shifts; AI Invest; 13 Juillet 2025
[126] EU Supply Chain Regulations Between Efficiency and Effectiveness; InterEconomics; 2025

by simplifying certain obligations and postponing the entry into force for SMEs, simplification of obligations[127].

Security: differences with the American approach

When it comes to the American strategy of excluding Chinese actors and forming a bloc impervious to Chinese interests, the European Union stands out from their transatlantic ally. The future Economic Partnership Agreement with Indonesia (CEPA), under negotiation since 2016 and finalized in early 2025, illustrates this approach. This trade pact will open up the Indonesian market to European companies while eliminating the majority of tariffs on minerals (around 80% of Indonesian exports, including nickel) by 2026, despite deep chinese involvement in Indonesia's industrial capacities[128]. In addition, French nickel producer Eramet has formed a joint venture with China's Tsingshan Holdings Co. on the Weda Bay industrial site (IWIP) in Indonesia. In this way, virtuous investment corridors (Global Gateway) linking Europe to supplier countries in Africa, Latin America or Asia, sometimes collaborate with Chinese actors, with a view to forging a normative alliance. This divergence accentuates a transatlantic divide on the approach to securing value chains since Donald Trump's second presidency: to the American offensive based on strategic decoupling, the EU continues to put forward a project of international normative alignment.

Continued dependence on China

Despite its efforts, Europe remains dependent on certain Chinese links. For example, 94% of Australian lithium and 99% of Congolese cobalt transit through China[129]. Alternative projects (new fields, European mines, local refining capacities) are struggling to achieve "critical mass". According to the industry, the projects identified could cover ~40% of the EU's needs by 2030, but many are blocked by administrative delays (notably in Portugal and Serbia) and insufficient private financing[130]. The European Union has relaxed state aid rules and plans to spend 3 billion euros ($3.3 billion) to stimulate battery production, but these sums pale in comparison with the $369 billion in green subsidies provided by the US Inflation Reduction Act[131].

[127] Comparing Developments in U.S. and EU Strategies to Combat Forced Labor; Pillsbury Law; 5 Janvier 2025
[128] EU-Indonesia CEPA: A New Frontier for Critical Raw Materials and Strategic Supply Chain Shifts; AI Invest; 13 Juillet 2025
[129] Why Europe's critical raw materials strategy has to be international; Bruegel; 5 Avril 2023
[130] EU sets critical mineral goals, but faces struggle to hit them; Reuters; 18 Décembre 2023
[131] EU sets critical mineral goals, but faces struggle to hit them; Reuters; 18 Décembre 2023

II) Recommendations for New Caledonia's international

1. Overview of strategic orientations

From the analyses in Chapter I, complemented by an in-depth knowledge of New Caledonia and its competencies in international relations, directions for innovative and effective international policies can be deduced. For an overview of the current situation of the nickel industry in New Caledonia, we recommend familiarizing yourself with the short report *Fluctuations du marché du nickel et impacts locaux en Nouvelle-Calédonie-Kanaky*[132]

Analyses show that the difficulties encountered by New Caledonia in the nickel sector are shared by many other actors around the world. Australia, for example, is struggling to produce profitably; the Philippines is finding it difficult to capture the added value of its extraction; Zimbabwe and Madagascar, meanwhile, are struggling to develop their industrial capacities and integrate into global production chains. This opens up the possibility of pooling forces to achieve common goals.

The recent upheavals in the nickel industry and the fall in nickel prices have resulted in a shift in the capture of added value from upstream to downstream links in value chains. By way of illustration, the share of electric batteries in the final price of electric cars fell from 40-50% to 20-35% between the early 2010s and today[133]. This dynamic is increasing the pressure on upstream producers, while consolidating the margins of processors and distributors, to the detriment of compartmentalized, non-integrated value chains.

In the light of these facts, a proactive strategy must be put in place, mobilizing all available bilateral, multilateral, private and local levers. The measures proposed in this section are designed to be complementary and mutually reinforcing, while remaining consistent with regional integration and not conflicting with French and European strategic orientations. They focus on actions that are technically feasible in the short to medium term, without requiring massive investment on the part of New Caledonian public actors. Capital-intensive initiatives, such as the energy transition to reduce production costs, are therefore not addressed here.

[132] Fluctuations du marché du nickel et impacts locaux en Nouvelle-Calédonie-Kanaky; Beyond Hot Air; Décembre 2024
[133] Electric vehicle batteries would have cost as much as a million dollars in the 1990s; Sustainability by numbers; 30 Décembre 2022

2. Public actions with the French government / European Union

2.1. Decompartmentalizing the production chain

While the drop in nickel prices has a negative impact on upstream actors in the value chain, notably New Caledonia, it does benefit downstream actors, who are able to obtain supplies at lower cost. It is important to understand that New Caledonia's current crisis is not, therefore, a crisis of the nickel sector as a whole, but results from its position in a fragmented production chain, within which the other links do not have commercial interests aligned with those of the territory.

One possible solution to this situation would be to integrate New Caledonia into an integrated production chain. Although the installation of a complete stainless steel industrial park on the territory is not conceivable, it would be possible, with both Caledonian and European political support, to conclude economic interest grouping agreements with representatives of the various levels of the stainless steel and battery production chain. The aim would be to secure floor prices via offtake agreements with actors in the relevant sectors, who would be encouraged to sign up by the public authorities as part of their efforts to secure strategic supplies. Potential partners could be European industrial parks, which would agree to share the added value generated downstream with upstream producers, currently forced to sell at a loss despite their indispensable role.

This integration could take the form of exchanges of capital stakes between New Caledonian public players and their industrial partners. In concrete terms, STCPI could sell part of its stake in SLN, and Province Nord part of its stake in KNS, to a foreign public partner. In return, the latter - representing a downstream link in the chain - would transfer an equivalent stake to these Caledonian shareholders. The involvement of private players in this arrangement would strengthen the incentives for joint industrial development, but would complicate the operational implementation of the project.

It should be stressed, however, that such contractual arrangements are uncommon in practice, as long-term contracts are generally based on price formulas with no floor price mechanism. What's more, actors downstream in the production chain (electric vehicle manufacturers) do not always generate significant profits in Europe, as their margins are already severely squeezed by subsidized Chinese competition; they therefore do not always have the capacity to redistribute their profits. What's more, these arrangements can only be envisaged with European partners, who may be motivated by a desire to secure nickel supplies. Non-European actors would have no interest in imposing such constraints on themselves.

Possible partnerships for such financial packages are: Boliden Harjavalta (Finland), Nikkelverk (Norway, owned by Switzerland's Glencore), Latsia/Nicosie (Cyprus, Hellenic Minerals), as well as the Sandouville (France, owned by South Africa's Sibanye-Stillwater) plant, which imported SLN's matte until the latter stopped matte production, and EMME (France), scheduled to open in 2028. Insofar as Europe is not a

major outlet for the stainless steel production chain, it is all the more essential to ensure the relevance of this recommendation for integration between Caledonian production and European value chains by directing SLN and KNS production towards the electric battery sector. This implies boosting matte production. This orientation is developed in greater detail in the following section (see *Chapter II - 2.2*).

2.2. Desensitize to Asian competition - matte production

The possibility of resuming nickel matte production at SLN and KNS at the expense of ferronickel has been discussed at length, and with good reason. The issue was raised in report 2023 of the French Finance Inspectorate (Inspection Générale des Finances)[134].

This possibility would reduce the sensitivity of the two operators' financial results to ferronickel price trends on the Asian market. Indeed, matte production at SLN and KNS would offer access to the class 1 nickel market, as matte could be used as an input in the manufacture of nickel sulfate for electric batteries, unlike ferronickel, which is only compatible with the stainless steel production line. Such a reorientation would open up a twofold arbitrage opportunity: firstly, between Asian and European markets (the European market is not currently an outlet for Caledonian ferronickel), and secondly, between the nickel for batteries and stainless steel segments. The plants would retain their current ferronickel production capacities, while adding matte conversion capabilities.

Resuming the activity of the Bessemer workshop, which produced nickel matte for SLN until 2016, is estimated at 20 million euros for production equivalent to that of 2016, i.e. 15,000 tonnes of nickel content per year[135]. Converting all production to matte would require an estimated investment of between 50 and 100 million euros. At KNS, the installation of such facilities is also estimated at 100 million euros.

It should be stressed, however, that value creation through matte production depends on the size of the price spread between matte and ferronickel, which must exceed the conversion costs incurred by operators. Over the long term, this spread could approach the marginal cost of conversion, potentially determined by Indonesian producerss[136].

2.3 Renegotiating the activities of Nornickel Harjavalta (Finland)

The situation at the Harjavalta industrial site in Finland could constitute a new outlet in the context of a resumption of matte production in New Caledonia (see *Chapter II - 2.2*), although the Caledonian authorities have no direct influence on this situation.

This nickel refinery is operated by Nornickel Harjavalta, a subsidiary of the Russian state-owned company Nornickel, and processes nickel mattes imported from Russia. However, the Class I nickel it

[134] Avenir de la filière du nickel en Nouvelle-Calédonie; Inspection Générale des Finances; 2022
[135] Personal communication
[136] Avenir de la filière du nickel en Nouvelle-Calédonie; Inspection Générale des Finances; 2022

produces continues to be sold in Europe for the production of electric batteries. The continuation of the plant's activities is tolerated by the EU, for the dual reason that this industrial center provides important jobs for the Finnish economy, and that its European customers require its nickel products to produce European electric batteries[137]. However, Nornickel Harjavalta is not in a strong position from a financial point of view: the site has experienced difficulties in Europe, as some customers have withdrawn for reputational reasons, forcing the site to redirect the sale of their products to the Chinese market. As a result, net profits fell by 37% in 2024, and appear to stabilize at this level in 2025[138]. Their yearly record remains net positive. However, these weaknesses do not make the European authorities totally dominant vis-à-vis Nornickel: Europe benefits strongly from the economic advantages of maintaining this plant.

If the European and Russian economies continue to split, it would be worthwhile for the Europeans to study the possibility of making Nornickel Harjavalta's continued operations conditional on a partial supply of Caledonian nickel mattes, in order to reduce the independence of this Russian economic exclave in Europe and the profits it brings to Russia. However, this condition must ensure that Nornickel Harjavalta's operations remain profitable, otherwise the refinery would have no reason to continue its operations.

It must be taken into account that, such schemes to make Nornickel Harjavalta's activities more profitable for Europe have surely already been studied as early as 2022 and are undoubtedly very complicated to implement from a legal and political point of view. Details of the conditions for maintaining Harjavalta's operations have probably already been discussed between the European and Finnish authorities and Nornickel, and are not available in open source.

3. Actions privées : Forum des Exploitants de Nickel

In an increasingly neoliberal global context, the private sector has considerable power to influence political dynamics, yet is often reluctant to assume these political responsibilities. Thus, an effective response to the current nickel crisis should come as much from the public as from the private sector. An international collective organization of mining operators could be a relevant lever for defending common interests upstream of the value chain (particularly extraction).

The fundamental observation is that the fall in nickel prices has not led to a proportional fall in the price of finished products (batteries or stainless steel). In other words, extraction has been devalued, while added value has shifted to the upper stages of the chain, controlled mainly by large groups (notably Chinese). This situation calls for the development of a collective consciousness among upstream producers, based on the identification of shared interests and the strength of coordination.

[137] What if Russia imposes nickel export restrictions?; Rovjok; 18 Octobre 2024
[138] Nornickel's first-half net profit up 2% to $842 million; Reuters; 5 Août 2025

Creation of the Nickel Exploitant Forum (NEF)

This would take the form of a professional forum for ore miners, the Forum des Exploitants de Nickel (NEF), designed to pool feedback as well as commercial and investment information, and to strengthen the negotiating capacity of upstream producers. This collectivization would activate two complementary levers, each of which is relevant to players with expertise in nickel value chains. On the one hand, NEF would have the potential to influence global ore supply dynamics, precisely China's major vulnerability (cf. *Chapter I - 2.3.*). On the other hand, it would have the power to include or exclude Chinese actors at the preliminary stages of the chain according to a purely capitalist logic, a central lever of the American strategy. Moreover, Caledonian operators could use the NEF as a platform to promote ESG practices, which would attract the attention of the European Union. The strategic objective is to push each side to court NEF, in order to bring about the more widespread adoption of upstream producer-friendly practices, such as the integration of extractors and preliminary processors into downstream value chains (cf. *Chapter II - 2.1.*). This organizational logic is analogous to unionization strategies, where workers coordinate to negotiate sectoral improvements with the owners of the means of production, who benefit from an overview of production chains.

It should be explicitly stated that the initiative is not intended to form a cartel. The NEF would function as a professional forum (or de facto syndicate) whose primary role is to improve shared knowledge of global dynamics and issues, and which could, where appropriate, lead to the coordination of trade policies aimed at obtaining more favorable operating conditions - for example, through targeted export limitations to certain dominant buyers - and, de facto, redirecting a larger share of added value to the initial links in the chain, in the interests of fairness and stabilization of the entire sector.

Identification of potential NEF members

Mining companies in New Caledonia include: Nickel Mining Company, Société des Mines de la Tontouta (Ballande group), Société Minière Georges Montagnat, Maï Kouaoua Mines, Société Minière du Sud Pacifique, as well as the SLN, KNS and PRNC groups. Among these, the operators with the greatest interest in joining NEF are those for whom current activity is structurally unprofitable in the short/medium term; they have a strong incentive to organize to improve their commercial conditions.

In the Philippines, where almost all nickel is exported directly to China in ore form, miners are already grouped together under the Philippine Nickel Industry Association (PNIA). This cluster includes the following mining groups: Nickel Asia Corporation (an integrating group with several mining subsidiaries - Rio Tuba, Taganito, Hinatuan, Cagdianao), Carrascal Nickel Corporation, Chan C Mining Corporation, CTP Construction and Mining Corporation, DMCI Mining Corporation, Ipilan Nickel Corporation, Kafugan Mining Corporation, Marcventures Holdings Inc, Platinum Group Metals Corporation (a subsidiary of FNI, a major ore exporter), Eramen Minerals, Inc, Strong Group Mining Corporation, LNL Archipelago Minerals Inc. and others.

Other smaller-scale extractors operate in the Philippines, but are not part of the PNIA cluster: AAMPhil Natural Resources Exploration & Development Corp., Cagdianao Mining Corporation, Century Peak Corporation (Rapid City Nickel Project & Casiguran Nickel Project), Oriental Synergy Mining Corporation, Wellex Mining Corporation, SR Metals Inc., ADNAMA Mining Resources Corporation.

In PNG, there is just one active extractor operating on behalf of PNG's only nickel processing plant, the Chinese state-owned Ramu Nickel-Cobalt Project. The Mambare Nickel Project, operated by Oro Nickel Pty Ltd (Australia), and Solway Group Asia Pacific, owned by Solway Group (Switzerland), are exploring the possibility of nickel mining in PNG.

Some countries where nickel plays an important economic role but has little global visibility are potential targets (Madagascar, Zimbabwe, Cuba): for these countries, nickel represents respectively 19%, 10% and 13% of the value of their total exports, while contributing only marginally to the total exported worldwide (1.8%; 2.1%; 0.3%)[139].

The role of New Caledonian public authorities

New Caledonian public authorities could take on the role of facilitator for this initiative: firstly, by bringing together the most relevant Caledonian players, and secondly, by encouraging them to make contact with foreign interlocutors. This action must remain diplomatic and measured. The aim is not to create a disruptive bloc, but to encourage exchanges between independent private economic players. New Caledonia is particularly well placed to play this role: it has economic ties with both China and Western partners, enjoys geographical proximity and, for some players, cultural proximity to the main producers, and has bilateral relations that go beyond the mining sector (with Australia and PNG). Finally, its integration into multilateral bodies (European Union, Pacific Islands Forum) would reinforce its credibility as a mediator. The success of this strategy, however, requires a dedicated internal organization capable of coordinating the process, initiating contacts and raising stakeholder awareness of the benefits of such an approach.

[139] Nickel Products; Organization of Economic Complexity; 2023

Conclusion

New Caledonia's nickel industry operates at the heart of a polarized global system: on the one hand, a Sino-Indonesian complex that controls volumes, costs and a growing share of processing; on the other, American and European "friend-shoring" policies that seek to rebalance access to critical materials. Against this backdrop, New Caledonia can no longer be content to wait for a price reversal or an exogenous solution: the fragmentation of value chains and the shift of margins downstream call for a chosen integration strategy, based on precise industrial partnerships and active economic diplomacy.

The recommendations put forward focus on low-cost tools with high implementation leverage: (i) set up cooperation between upstream players (NEF) to influence ore purchasing conditions and make a strategy of alternative outlets credible; (ii) reposition part of New Caledonian flows towards the battery chain via matte production, which is more valuable in Europe and more complementary with European security of supply needs; (iii) align with European frameworks to link upstream producers and downstream processors.

The outlook to be monitored is decisive: the potential boom in deep-sea mining (polymetallic nodules), restrictions or bans on mineral exports by certain countries (Philippines, Indonesia on specific segments), the long-term reorientation of Russian flows, or the development of battery chemistries (particularly LFP), which will condition demand for class 1 nickel.

New Caledonia's nickel industry has a number of structural advantages: a wealth of minerals, ESG standards that are already highly integrated, access to advanced technologies, existing industrial parks, etc. However, its robustness will depend on its ability to anticipate international dynamics, to insert itself where value is created, and to build credible industrial partnerships.

III) Appendix

Appendix 1 - Nickel production stages (technical details)

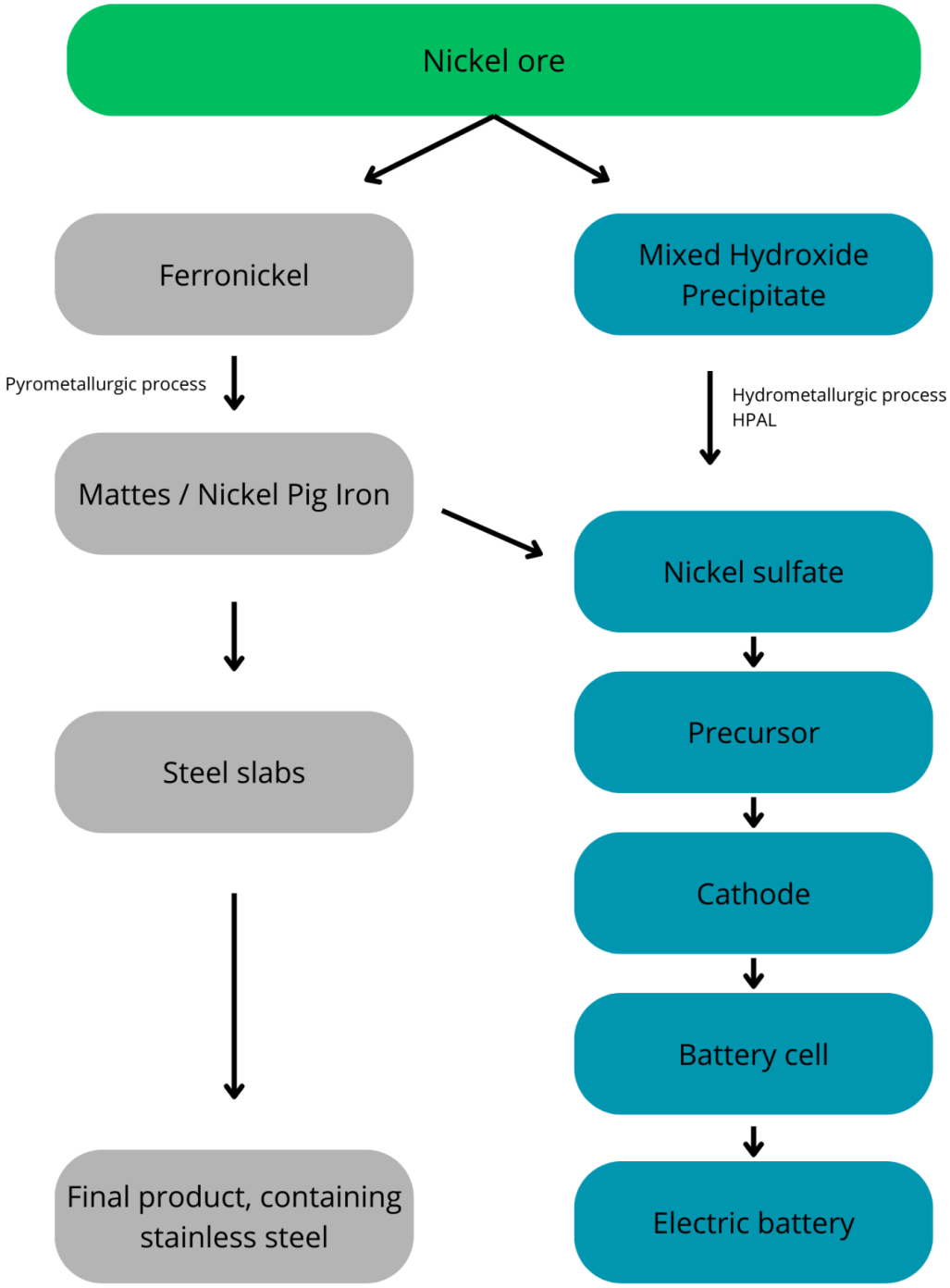
Nickel is prized in industry for its resistance to corrosion and good electrical conductivity. Its main outlets are stainless steel manufacturing, which accounts for around 66% of worldwide nickel consumption, and electric batteries, which account for almost 16%.

Stainless steel is used in a multitude of applications: industrial tools and parts, consumer goods (crockery, kitchen utensils, etc.), building structures - all sectors where its durability and ease of maintenance are in demand[140]. As for electric batteries, over 80% of nickel-based Li-ion formats (NMC, NCA) are now dedicated to electric vehicles, thanks to their high energy density and improved life cycle.[141].

Secondary uses, although marginal, include special alloys (notably copper-nickel alloys used in aerospace engineering), which account for just over 12% of global nickel demand, and permanent magnets (occasionally used in certain wind turbines), where nickel is used as an alternative to certain rare-earth alloys[142].

[140] About nickel; Nickel Institute; n.d.
[141] Nickel in batteries; Nickel Institute; n.d.
[142] Nickel - Mineral Commodities Summary; United States Geological Survey; 2025

Diagram 1. Simplified nickel production chains



Nickel ore
Nickel ore can be divided into two main families: lateritic, resulting from tropical alteration, and sulfuric, associated with mafic intrusions. Lateritic ores include laterite (or limonite), which is rich in iron oxide (40-60% Fe) but low in nickel (0.5-1.5% Ni), and deeper saprolite, which has a higher Ni content (1.5-2.5%), reduced iron (<30%) and high MgO (~20-30%). Conversely, sulfide ores, dominated by pentlandite [$(Fe,Ni)_9S_8$], associated with pyrrhotite and chalcopyrite, show an average grade of 1.3-2.8% Ni, with pure pentlandite containing up to 34% Ni and 32% Fe.

Stainless steel

Ferronickel
Iron-nickel alloys generally contain 20-40% Ni, obtained by carbothermic reduction in a rotary kiln followed by melting in an electric furnace (RKEF).

Mattes
Fe-Ni sulfide obtained from a pyrometallurgical process, refined in a converter. The Ni content varies from 30 to 60%, depending on the degree of refining.
It should be noted that transformation into mattes is not an obligatory step in the stainless steel production chain. Instead, they serve as easily transportable intermediates, interchangeable with the battery production line.

Nickel Pig Iron (NPI)
Low-grade alloy (4-13% Ni) produced by carbothermizing laterites in blast furnaces or electric furnaces. Not a mandatory step, mainly to reduce supply costs for the stainless steel industry. Since 2023, some Chinese producers have been using a new hydrometallurgical process to convert NPI into nickel sulphates, for the production of electric batteries.

Stainless steel slabs
the metal is melted in an arc furnace or oxygen-argon converter (AOD) with the addition of ferrochromium (50-70% Cr) and other ferroalloys, before being cast into slabs by continuous casting, thus forming the basis of stainless products ready for rolling and final processing.

Electric batteries

Mixed hydroxide precipitates (MHP)
Mixed Hydroxide Precipitate (MHP) is a product of the hydrometallurgical High Pressure Acid Leach (HPAL) process. They generally contain 35-40% Ni (and 1-4% Co), and serve as an exportable intermediate before refining into sulfate.

Another form of precipitate used are sulfide precipitates refined by adding H_2S to HPAL solution, rich in Ni (≈ 50-55%) and Co, high density and well suited to transport.

Nickel sulfate

Nickel sulfate hexahydrate ($NiSO_4$-$6H_2O$) is obtained by processing MHP, MSP or even matte, with the addition of sulfuric acid.

Since 2023, some Chinese producers have been using a new hydrometallurgical process to obtain nickel sulphates from NPIs.

Precursor

Depending on the chemistry, nickel sulfate is mixed with other metal salts:

- NMC / NCA: co-precipitation of Ni, Mn, Co (ratio 1 :1 :1 to 8 :1 :1) then addition of lithium carbonate or hydroxide to form a granular precursor,
- LFP: reaction of iron sulfates and lithium phosphate to produce the precursor $LiFePO_4$ (no nickel in this variant)

Cathode

The precursor is calcined with lithium (carbonate or hydroxide) at high temperature (700-900°C), crystallizing the final cathode structure (NMC, NCA or LFP) and giving it its definitive electrochemical properties.

Battery cell

The cathode is wound or stacked with :

- an anode (graphite, sometimes doped with silicon oxide),
- an electrolyte (dissolved lithium salt),
- a microporous separator.

The whole assembly is enclosed in a pouch, prismatic or cylinder, forming the cell unit.

Battery

Several cells are assembled in modules, then in packs (BMS, wiring, cooling), to make up the battery.

The main chemistries and their nickel content are :

- NMC 111: ~ 33% Ni,
- NMC 622: ~ 60% Ni,
- NMC 811: ~ 80% Ni,
- NCA: ~ 80-85% Ni,
- LFP: 0% Ni (uses Fe and P)

Nickel increases cathode energy density, significantly improving storage capacity.

Appendix II - Indonesia

The Nickel Industry in Indonesia

Introduction

Since 2014, Indonesia has made a decisive shift in its mining policy by banning the export of raw nickel ore, thus conditioning the massive establishment of processing infrastructures on its territory, and initiating a gradual nationalization of production capacities. This strategy has propelled the country to world leadership in processed nickel, making it a price maker on international markets. Jakarta now aims to stabilize nickel prices below the break-even point of certain competitors, including New Caledonia. However, Indonesia's success is based on a marked dependence on China: a large proportion of investment and processing technologies come from Chinese partners, consolidating their influence while making the industry vulnerable to changes in demand and Beijing's decisions. Western attempts to counter or adapt this model have so far proved insufficient to present a real alternative to Chinese actors, despite Indonesia's desire to diversify its economic partners.

Table of contents

Abbreviations

ASEAN - Association of South East Asian Nations

BKPM - Investment Coordinating Board

DCF - Discounted Cash Flow

EV - Electric Vehicle

FTA - Free Trade Agreement

GATT - General Agreement on Tariffs and Trade

HPAL - High Pressure Acid Leach

IMIP - Indonesia Morowali Industrial Park

IRA - Inflation Reduction Act

IWIP - Indonesia Weda Bay Industrial Park

MEMR - Ministry of Energy and Mineral Resources

MoU - Memorandum of Understanding

NPI - Nickel Pig Iron

RKEF - Rotary Kiln Electric Furnace

USGS - United States Geological Survey

WTO - World Trade Organization

1. An ambitious strategy to capture added value

Indonesia is seeking to reposition itself in the nickel value chain, by hosting on its soil the entire production chain for nickel's two main outlets: stainless steel and electric batteries. As a result, Indonesia has implemented an ambitious strategy designed to encourage, or even compel, its partners to invest in the construction of nickel production and processing capacity, and then to take ownership of this capacity.

This strategy is divided into two phases:

- The first consists of banning the export of nickel in its raw form (ore) (see section 1.1).
- The second stage involves the nationalization of nickel production capacity (see section 1.2).

1.1 Ore export ban leads to relocation of processing plants in Indonesia

1.1.1 Implementation of the Indonesian strategy from 2014

The relocation of nickel value-adding in Indonesia began with the 2014 export ban, implemented by Government Decree No. 1/2014 and MEMR Decree No. 1/2014, which prohibited the export of raw nickel ore and mandated in-country processing[143]. Very quickly, Chinese groups importing Indonesian nickel ore redirected their capital towards Indonesian processing infrastructures, in particular towards new NPI (nickel pig iron) plants and ferronickel refineries, in order to guarantee their ore supply[144]. A number of Western groups, including Eramet, have also invested in Indonesia, but their dependence on more efficient Chinese technologies has forced them to conclude joint investments with Chinese groups[145]. The Weda Bay site is owned 38.7% by Eramet and 51.3% by the Tsingshan group[146].

Despite industrial progress, the 2014 ban also led to fiscal and social tensions. With nickel ore exports halted, government revenues plummeted (Indonesia recorded a budget deficit of US$17.6 billion in 2016), forcing the government to reconsider its policy against a backdrop of economic slowdown[147]. Thus in 2017, the Indonesian authorities relaxed the 2014 regulations, authorizing exports of low-grade ore (≤ 1.7% nickel) according to a quota system, over a period of 5 years, on condition that they reserve at least 30% of their processing capacity for low-grade ore[148]. This phase was designed to ease the cash flow of mining companies, while maintaining incentives for the construction of processing infrastructure.

This relaxation phase was quickly reduced to 2 years. In 2019, the government implemented MEMR regulation no. 11/2019 and decree no. 154/2019, which provided for a total ban on nickel ore exports and for smelter construction to reach at least 90% of the smelter's physical development plan for each

[143] In Indonesia, Processing Minerals for Export now Mandatory; SSEK; 3 Mars 2014
[144] Transcript: How Indonesia cornered the nickel market; Financial Times; 11 Juin 2025
[145] Transcript: How Indonesia cornered the nickel market; Financial Times; 11 Juin 2025
[146] Commission implementing regulation (EU) 2022/433; Journal Officiel de l'Union Européenne; 15 Mars 2022
[147] Arrested development: why Indonesia lifted its mining export ban; Mining Technology; 12 Mars 2017
[148] Nickel prices plummet as Indonesia eases export ban; Mining.com; 12 Janvier 2017

six-month period, based on an independent auditor's report[149]. To ensure compliance with these strict rules, mining companies were required to post a bond with the government equivalent to 5% of the export volume for each shipment, multiplied by the export reference price[150]. Failure to comply with this obligation could result in: (a) the recommendation of a temporary suspension of exports to the government authorities responsible for international trade, and (b) a penalty equal to 20% of the cumulative value of exports over the previous six months. Failure to pay the penalty would have resulted in: (a) temporary suspension of all or part of commercial activities for a maximum of 60 days, (b) withdrawal of the license if no payment was received within 60 days of temporary suspension, and (c) recommendation of suspension of exports to the relevant government authorities responsible for international trade[151].

This strategy has paid off for the Indonesian nickel industry (see section 2.1). It has enabled Indonesia to move up the nickel value chain, exporting products of much higher value than nickel ore.

Table 1: Value of nickel ore and derivatives in 2023.

Nickel ore	30 USD/T
Nickel pig iron (NPI)	90 USD/T
Ferronickel	203 USD/T
Nickel matte	3 117 USD/T
MHP	3 628 USD/T

This table is based on data provided by the Italian Business Association in Indonesia.[152].

However, Indonesia's goal has yet to be achieved, as it wishes to host the entire electric battery production chain, including battery recycling facilities. By 2027, Indonesia aims to become one of the world's top three producers of batteries for electric vehicles[153] (see section 2.2).

[149] Prohibition of the export of nickel ore; International Energy Agency; 19 Mars 2024
[150] Indonesia amends regulation on nickel export to boost production of value-added products; Norton Rose Fulbright; Octobre 2019
[151] Indonesia amends regulation on nickel export to boost production of value-added products; Norton Rose Fulbright; Octobre 2019
[152] Successful Downstreaming: Indonesia's Nickel Export Value Surges Tenfold; Italian Business Association in Indonesia; 12 Octobre 2023
[153] Indonesia's Electric Battery Industrial Strategy; ASEAN Briefing; 2 février 2024

1.1.2 Favourable conditions for implementing this strategy

Indonesia's strategy was successful because it capitalized on the structural strengths of the Indonesian economy. Indeed, Indonesia benefits from particularly low energy and labor costs.

Indonesia is rich in coal, which also happens to be a subsidized resource. Electricity costs 10 cents per kilowatt hour[154], and subsidies to the state-owned PLN group lowered prices to 4.5 cents per kilowatt hour for large consumers, including mining groups[155].

What's more, Indonesia, which is not constrained by environmental and social policies, benefits from an inexpensive workforce. The average wage in the mining industry (excluding nickel) is between 280 and 350 USD/month[156]. By way of comparison, the average national minimum wage is around 227 USD/month, but this varies from province to province.

The cost of producing a tonne of nickel is between 5,000 and 7,000 USD/t. In 2024, the Australian group BHP announced that the cost of a tonne of nickel produced in Australia was USD 20,000/t[157].

1.1.3 Public policies to support the industry

To support investment in the nickel industry, between 2014 and 2016 the Indonesian government introduced tax holidays of 7 to 20 years for the first investors in nickel processing plants[158] [159]. In 2023, faced with the saturation of Chinese-made RKEF plants, the government revoked the tax holidays for new RKEF projects, retaining these advantages only for investments made prior to the decision, in order to direct capital towards HPAL and hydrometallurgical projects deemed more strategic[160]. At the same time, the BKPM (Investment Coordinating Board) continues to grant import duty exemptions on equipment for processing projects, and accelerated depreciation is possible on condition that higher value-added products are exported[161]. These are just a few examples of economic stimulus measures of a fiscal nature.

Educational and training measures have also been put in place. The Ministry of Education and Ministerial Office has encouraged applied research programs in extractive metallurgy at universities

[154] Following Indonesia's Ban on Ore Mining? Can the Philippines' "Ore Mining Ban" Policy Impact the Nickel Industry; Shanghai Metals Market; 9 Mai 2025
[155] Nickel Industries CEO Justin Werner warns of ‘challenging’ future for Australian mining; New.com; 9 Février 2025
[156] Wages in Indonesia 2024: What to Expect in the Labour Market; Eso Global Expansion; 11 Août 2024
[157] Nickel Industries CEO Justin Werner warns of ‘challenging’ future for Australian mining; New.com; 9 Février 2025
[158] Faisal Basri criticizes nickel downstream policy, sparks response from the government on tax profits and added-value; Indonesia Business Post; 14 Août 2023
[159] The Nickel-based Industrial Paradox: Indonesian Resources, Chinese Profits; The Diplomat; 18 Février 2025
[160] Indonesia revokes tax holiday incentives for new nickel smelter to promote hydrometallurgical investment; Indonesia Business Post; 8 Mai 2023
[161] Indonesia’s Nickel Rush – Riding the Waves of the EV Battery Revolution; King & Wood Mallesons; 12 Octobre 2023

located near mining areas: the University of Cendrawasih (Papua) and several universities in the North Moluccas receive funding from PT Freeport Indonesia or PT Weda Bay Nickel to support laboratories and thesis projects on sustainable nickel extraction and processing[162]. In addition, many mining groups provide training, programs or scholarships to enhance the skills of local workers, such as Harita Nickel[163], Nickel Industries Ltd.[164], PT Amman Mineral International[165], etc. It should also be noted that international academic exchanges (notably with Chinese and Australian universities) promote the learning of advanced technologies (see sections 3.1 and 3.5).

In addition, there are indirect support measures for the industry. For example, energy subsidies enable lower electricity tariffs for heavy industries, substantially reducing the traditionally high operating costs of nickel processing plants (see section 1.1.2).

1.2 Progressive nationalization of mining capacities

1.2.1 The legal framework for nationalization

Foreign investors who are majority shareholders in nickel-related facilities are obliged to divest their capital gradually, so that at least 51% of the shares are owned by Indonesian entities around 15 years after the start of production. In order of preference, divestments should be made to the central government, the provincial or municipal government, a state or regional enterprise, a national private commercial entity, or simply sold on the Indonesia Stock Exchange[166].

This principle has been enshrined since the enactment of Law No. 4 of 2009 on coal and mineral mining[167], but it was confirmed in 2020 by two new laws (Law No.3/2020 and Law No.11/2020, also known as the Omnibus Law). The 2020 updates confirm and refine these provisions, delegating to the central government the power to specify the timing and terms of share transfers[168]. These depend on whether or not the company has integrated processing or refining facilities, and the type of mining method used (open-pit or underground). The process is overseen by the MEMR. The share price must reflect fair market value, calculated via Discounted Cash Flow (DCF) or benchmarking of comparable transactions, and be validated by an independent expert appointed by MEMR.

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[162] Not Managing Mining, Universities Only Get Research Funding To Scholarships; Voi; 18 Février 2025
[163] Working to enhance the skills of local workers, HARITA Nickel kicks-off 'PELITA' vocational program; TBP Nickel; 7 Juin 2023
[164] Nickel Industries announces scholarships for Morowali students; Antara; 7 Février 2024
[165] AMMAN Initiates Skill Development Program for Local NTB Talents; AMMAN; 8 Novembre 2023
[166] Diversifying Investment in Indonesia's Mining Sector; Center for Strategic and International Studies; 11 Juillet 2024
[167] Analysis of Divestment Arrangements in Indonesia; Law Firm Suwarsit, Purgito, Susilo & Partners; 19 Septembre 2020
[168] Indonesian mining regulations: notable changes and developments in recent years; International Bar Association; 29 Septembre 2022

1.2.2 Application of nationalization

In the event of non-compliance with nationalization rules, administrative sanctions may be imposed, including written warnings, suspension of production and even revocation of operating permits[169]. By way of illustration, here is the divestment timetable that applies to foreign-owned mining groups with no ore refining or processing capacity. Note that the timetable depends on site characteristics and MEMR decisions.

Table 2: Share transfer schedule applicable to certain mining groups.

Number of years since production began	Minimum share of Indonesian entities
10	5%
11	10%
12	15%
13	20%
14	30%
15	51%

This requirement enables the State to retain control over the value chain and capture the added value of nickel processing. It also encourages technology transfer and the development of skills by local companies[170].

1.3 A strategy fraught with difficulties

Indonesia's protectionist strategy, often presented as a successful example of 'resource nationalism', has largely frustrated its Western partners. The latter have used various means to resist Indonesian initiatives. On the other hand, given the huge sums invested in Indonesia, China's lack of reticence towards this strategy could indicate that this protectionism does not conflict with Chinese strategic interests. Indeed, several indicators show that Chinese interests remain represented in Indonesia, despite the latter's nationalization policy.

[169] Indonesia’s Nickel Rush – Riding the Waves of the EV Battery Revolution; King & Wood Mallesons; 12 Octobre 2023
[170] Diversifying Investment in Indonesia’s Mining Sector; Center for Strategic and International Studies; 11 Juillet 2024

1.3.1 Resistance from international actors

The actors most negatively impacted are Western investors and operators. After investing in the construction of processing capacity in Indonesia, their supply chain is slipping away. It is against this backdrop that the European Union has officially requested dispute settlement at the World Trade Organization (WTO) in 2019 (dispute DS592)[171]. The dispute concerned the measures relating to the export ban on certain nickel products, allegedly in breach of Article XI:1 of the GATT 1994, as well as the exemption scheme conditional on local content and the failure to publish these measures promptly[172]. On December 6, 2019, the United States requested to join the consultations as a third party[173]. WTO concluded that both measures violated WTO obligations, as they were non-temporary and not justified as a "critical crisis" (Article XI:2(a)), and not necessary to secure compliance with the mining law (Article XX(d)). However, Indonesia appealed against this decision despite the absence of an appeals committee, making the final ruling impossible[174]. In any case, Indonesian President Widodo announced in 2022 that he had no intention of complying with the WTO, given the positive track record of Indonesia's strategy and the fact that nickel processing capacity had already been built[175]. In response, the European Union launched a public consultation on possible trade countermeasures (including tariffs on Indonesian steel)[176].

China has not issued a statement in response to the ruling; and complies with Indonesian regulations.

By way of comparison, the cases of PT Freeport Indonesia and the dispute between China and the WTO over rare earths involve similar situations. PT Freeport Indonesia is an American mining group operating in Indonesia in the silver, gold and copper industries. Subject to share transfer rules, the company disputed Indonesian legislation and ended up negotiating an extension of its mining rights until 2021 (rather than 2018 as initially planned) in exchange for 51% control of the shares by PT Indonesia Asahan Aluminum (INALUM)[177]. The dispute between China and WTO over rare earths dates back to 2012. At the time, China was imposing restrictions on the export of rare earths, which was opposed by the United States, supported by the European Union and Japan.[178]. WTO ruled against China, finding its export controls unjustifiable[179], and China, following an appeal that upheld the WTO ruling, complied with the decision and withdrew its export barriers in 2015[180] .

[171] European Union initiates WTO dispute case against Indonesian restrictions on raw materials; World Trade Organization; 27 Novembre 2019
[172] DS592: Indonesia — Measures Relating to Raw Materials; World Trade Organization; 16 Décembre 2022
[173] AISI Statement on WTO Indonesia Ruling; American Iron and Steel Institute; 30 Novembre 2022
[174] Information gathering on the Indonesian export ban and domestic processing requirement on nickel ore; Commission Européenne; 2023
[175] Indonesia president says likely to lose WTO nickel dispute against EU; Business Times; 9 Septembre 2022
[176] Information gathering on the Indonesian export ban and domestic processing requirement on nickel ore; Commission Européenne; 2023
[177] Press Release PWYP Indonesia: Critical Notes on Freeport's Divestment; Publish What You Pay Indonesia; 13 Juin 2018
[178] DS431: China — Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum; World Trade Organisation; 20 Mai 2015
[179] Demystifying China's Critical Minerals Strategies: Rethinking 'De-risking' Supply Chains; World Trade Review; 30 Juin 2025
[180] China Drops Its Export Limits on Rare Earths; New York Times; 5 Janvier 2015

1.3.2 Analysis of holding chains reveals the infiltration of Chinese capital

The American think tank C4ADS published a report in February 2025 detailing the level of Chinese capital dissemination in Indonesia[181]. This dissemination enables China to infiltrate the entities controlling nickel production, despite the indication that they belong to Indonesian entities. An analysis of the chain of custody of 19 refineries responsible for 90% of nickel production capacity in Indonesia indicates, according to the report, that China controls up to 75% of these entities[182]. However, these companies are sometimes considered Indonesian nationals, as they are registered in Indonesia and therefore not subject to the nationalization measures that Indonesia has put in place (cf. section 1.2). A survey conducted by the Multatuli project identifies the main beneficiaries of nickel mining in Indonesia - Indonesian, Chinese and others. The survey analyzes the entities and individuals that control the industry's core entities, namely PT Vale Indonesia, PT Aneka Tambang, PT Weda Bay, and Bintangdelapan Group[183].

In particular, Tsingshan Holding Group and Jiangsu Delong Nickel Industry Co Ltd together hold 75% of Indonesian nickel processing capacity. The shareholding chain below shows Tsingshan Holding Group's holdings in various mining and smelting companies on the Morowali site (see section 2.1.2).

Figure 1: Chain of ownership of Morowali site operators (IMIP) linked to the Tsingshan Holding Group.

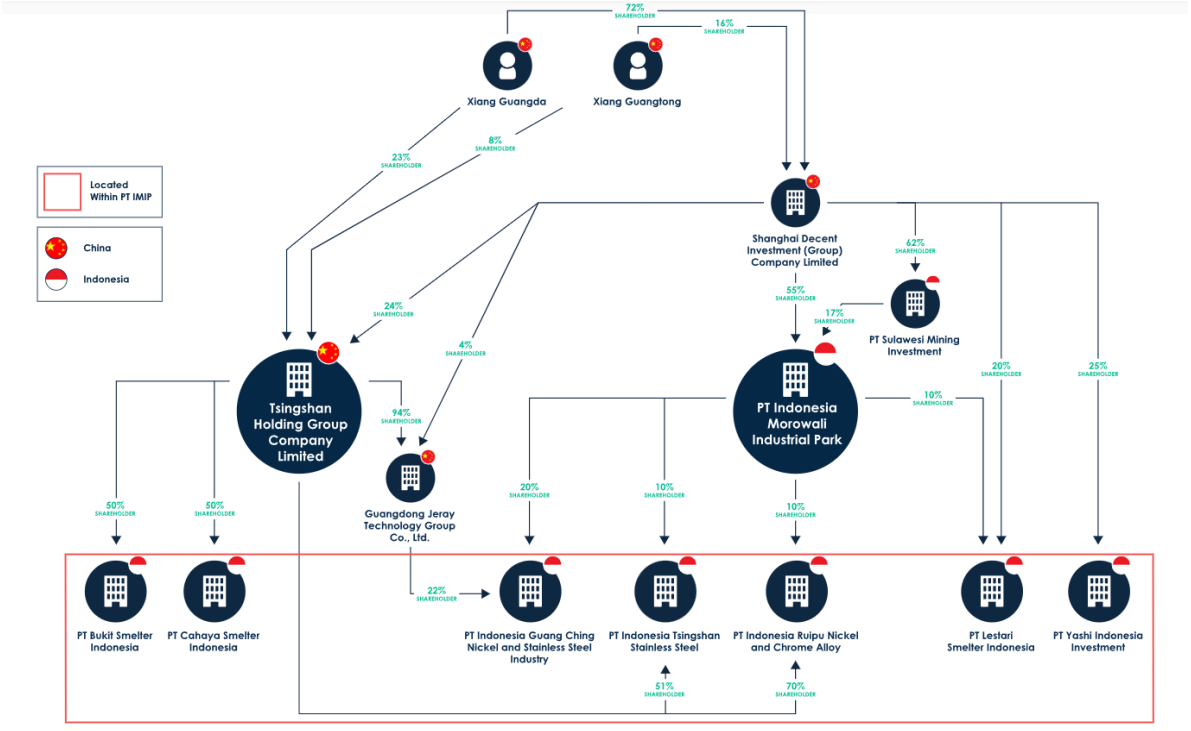


Diagram taken from the C4ADS report mentioned above.

[181] Refining Power; C4ADS; 4 Février 2025
[182] Refining Power; C4ADS; 4 Février 2025
[183] China in the Downstream: Beijing Tightens its Stranglehold on Indonesia's Nickel Industry; Project Multatuli; 22 Juillet 2024

Zulfikar Hamonangan, a member of the House of Representatives participating in Commission VII on Energy and Mineral Resources, mentioned in 2022 that China controlled 90% of the Indonesian nickel industry[184] [185]. This statement was supported by Marwan Batubara, Executive Director of the Indonesian Resources Study (IRESS), who said that despite the fact that the smelters are Indonesian legal entities, the majority of shareholders and investors remain Chinese[186].

This infiltration of Chinese capital is not surprising, given the amounts invested by Chinese private and public actors. In August 2024, Chinese direct investment in the Indonesian nickel sector was estimated at $30 billion since the sector's emergence[187].

1.3.3 Commercial and technological dependence on China

As well as holding the capital of Indonesian entities, China is also proving to be indispensable to Indonesia, due to its monopsony position and Indonesia's technological dependence.

Indeed, China enjoys a monopsony position. It is the only country with the industrial capacity to process the nickel products coming out of Indonesian plants. China was the destination for 98% of Indonesian ferronickel exports (NPI, ferronickel... for steel) and 58% of nickel mattes (MHP, nickel sulfates... for electric batteries). Indonesia is seeking to reduce its dependence on China by diversifying its trading partners (see section 3).

What's more, Indonesia, boosted by Chinese investment, has seen massive adoption of Chinese nickel processing technologies, notably the RKEF pyrometallurgical system producing NPI using an innovative process developed and mastered solely by China. Of the 116 smelters in operation, under construction or planned, 97 are RKEFs and 19 HPALs[188]. Added to this technological dependence are practical considerations, illustrated by the fact that Indonesian education favors English over Mandarin, even though the use of these technologies requires a command of this language. As a result, industrial sites are forced to recruit qualified Chinese workers[189].

[184] Kementerian ESDM: 90 Persen Smelter Nikel Kerja Sama dengan China; Liputan 6; 18 Août 2023
[185] Transcript: How Indonesia cornered the nickel market; Financial Times; 11 Juin 2025
[186] China controls Indonesia's nickel industry; Indonesia Business Report; 30 Novembre 2022
[187] Indonesia’s nickel market stranglehold tightens, again; Mine Magazine; 2025
[188] https://projectmultatuli.org/en/beijing-tightens-its-stranglehold-on-indonesias-nickel-industry/
[189] Mutual Language Policy: A Novel Approach to Language Policy in Chinese-Indigenous Worker Interactions; 2024

2. The result of this strategy, the Indonesian nickel boom

2.1 Indonesia becomes world leader in nickel...

2.1.1 World's leading nickel producer

Indonesia's policy of on-site nickel processing, initiated in 2014 with the ban on raw ore exports (see section 1.1), has largely succeeded in maximizing added value by forcing the creation of downstream refining and manufacturing industries on its territory[190]. Indonesia's attractiveness is illustrated by the rise in direct investment to the country. From just $7.37 billion a year over the period 2004-2010, this has risen to $20.66 billion a year over the period 2011-2024 (for the entire Indonesian economy)[191].

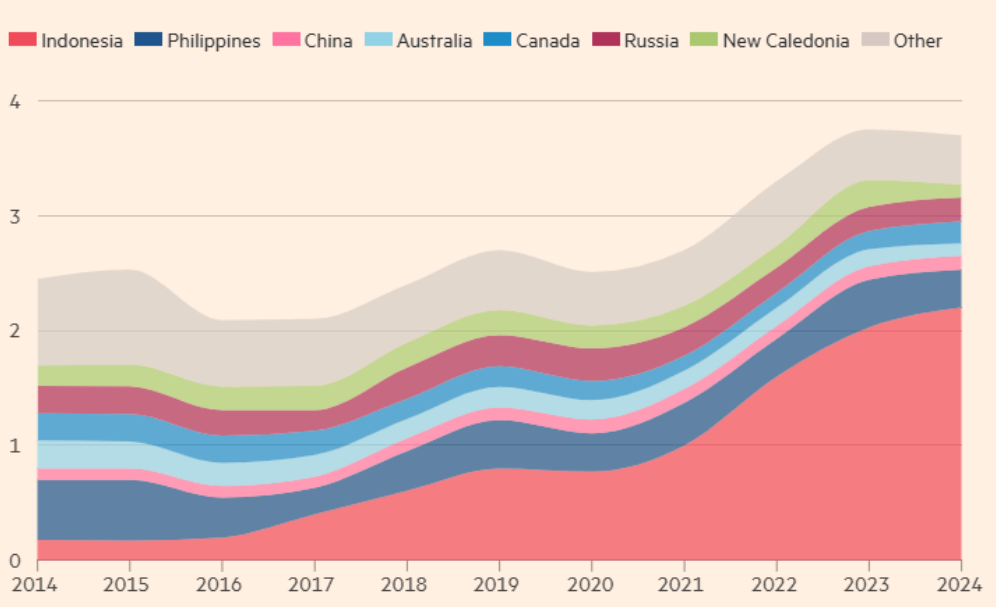
As a result, Indonesia's production capacity has reached world records. When the ban came into force, Indonesia produced just 177,000 tonnes of nickel in ore form. By 2022, Indonesia was producing 1.5 million tonnes of nickel in the form of high value-added nickel derivatives[192]. Indonesia's production is set to continue rising over the coming years, reaching 2.5 million tonnes in 2027.

Exporting high value-added products, the country's repositioning in the upper echelons of the value chain has greatly increased the industry's revenues. Nickel exports, for example, have risen from $1.4 billion in 2014 to $22 billion in 2022[193], then around 39 billion in 2024[194].

Its reserves, amounting to 21 million tonnes of contained nickel, represent around one-fifth of the world total[195] [196]. They have an estimated lifespan of 11 years[197]. Indonesia has thus positioned itself as the world leader in nickel production. The country already produced 54% of the world's nickel in 2023, and plans to produce 60% by 2028[198]. The country produced only 16% in 2017[199].

[190] Diversifying Investment in Indonesia's Mining Sector; Center for Strategic & International Studies; 11 Juillet 2024
[191] Foreign direct investment, net inflows (BoP, current US$) - Indonesia; World Bank Group; 2025
[192] Mine production of nickel in Indonesia from 2019 to 2022, with a forecast for 2023 to 2027; Statista; 19 Avril 2024
[193] In charts: how the Joko Widodo era remade modern Indonesia's economy; Financial Times; 11 février 2024
[194] Indonesia's nickel market stranglehold tightens, again; Mine Magazine; 2025
[195] Mineral Commodity Summaries 2023; US Geological Survey; 2023
[196] About nickel; Nickel Institute; 2023
[197] Indonesia - Mining by the numbers, 2024; S&P Global; 18 Septembre 2024
[198] Indonesia - Mining by the numbers, 2024; S&P Global; 18 Septembre 2024
[199] Indonesia's nickel market stranglehold tightens, again; Mine Magazine; 2025

Figure 1: Worldwide nickel extraction by country, in million tonnes.



This graph was taken from the Financial Times, using data from the US Geological Survey[200].

2.1.2 En position de price-maker

From the point of view of international markets, it has to be said that the direct influence of Indonesian production on the price of the metal positions Indonesia as a price-maker. Indeed, the Financial Times points out that Indonesia now has a larger share of the nickel market (over 53%) than OPEC had of the oil market at the time of the 1973 crash (around 50% of the world's crude oil)[201].

Indonesian overproduction in recent years has unilaterally caused the nickel price to plummet[202], to reach USD 11,700/tonne on the London Metals Exchange (LME) in April 2020[203]. However, Indonesia is seeking to stabilize prices at a level more optimal for its industry. The government has declared its intention to maintain the price of a tonne of nickel at between 17,000 and 18,000 USD[204]. A statement in 2024 by Septian Hario Seto, Deputy Minister of the Coordinating Ministry of Maritime Affairs and Investment, reiterated the intention to keep the LME price below $18,000 per tonne[205]. A nickel price stabilized at this level would make nickel processing permanently unprofitable in New Caledonia and Australia.

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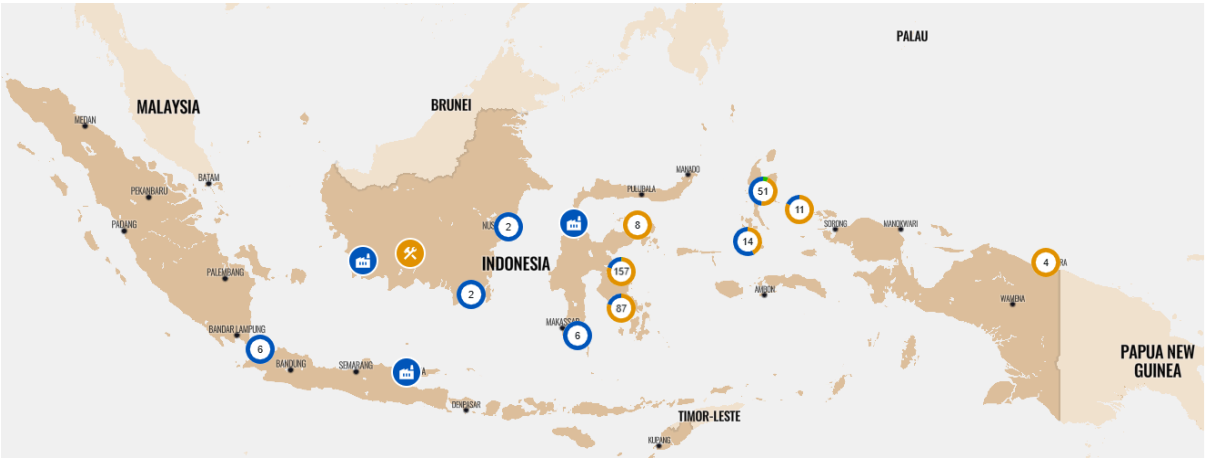
[200] 'The Opec of nickel': Indonesia's control of a critical metal; Financial Times; 13 Février 2025
[201] 'The Opec of nickel': Indonesia's control of a critical metal; Financial Times; 13 Février 2025
[202] Nickel market faces upheaval as Indonesia and the Philippines consider major policy shifts; Smallcaps; 17 Mars 2025
[203] Nickel - pureté de 99,80 % - LME (London Metal Exchange) - Au comptant - Prix en dollars par tonne; Institut de la Statistique et dese Etudes Economiques; 21 Mai 2025
[204] Indonesia - Mining by the numbers, 2024; S&P Global; 18 Septembre 2024
[205] Indonesia Says Its Nickel Supply Will Keep Global Prices Low; Bloomberg; 29 Février 2024

2.1.3 Mapping the nickel industry

As a direct result of the success of the Indonesian strategy, numerous mining complexes have emerged across Indonesia. According to a statement by Deputy Minister of Investment and Deputy Head of the Investment Coordinating Board (BKPM) Todotua Pasaribu, 54 smelters were in operation by March 2025, and a further 60 are in the process of obtaining permits[206]. These foundries use either High Pressure Acid Leach (HPAL) technology, which contributes to the electric battery production chain, or Chinese Rotary Klin Electric Furnace (RKEF) technology, which can contribute to steel or electric battery production.

The following map, dated 2024, lists the 357 nickel-related facilities that were either active or planned at that date.

Map 1: Nickel industry facilities in Indonesia in 2024.



This map is from the China Global South Project[207].

Legend:

- **Blue: Mining and mineral resources** - facilities for extracting ore from mines.
- **Orange: Transformation** - facilities that transform nickel ore into nickel-based products for a variety of applications.
- **Vert: Batteries and recycling** - facilities that transform nickel-based products into batteries, or even have the capacity to recycle batteries.

The most important industrial site is the Indonesia Morowali Industrial Park (IMIP). The world's largest industrial nickel site[208], IMIP is a joint venture between China's Tsingshan Holding Group (~66%) and Indonesia's Bintang Delapan Group (33.75%)[209]. Located in Bahodopi (Central Sulawesi), the site

[206] 54 smelters in operation, 60 in the process of securing permits: BKPM; Indonesia Business Post; 10 Mars 2025
[207] User Guide: Interactive Map of Nickel Projects in Indonesia; China Global South Project; 12 Juin 2024
[208] 'Production first, safety later': inside the world's largest nickel site; Financial Times; 28 Novembre 2024
[209] Indonesia Morowali Industrial Park (IMIP); The People's Map of Global China; 22 Novembre 2021

employs over 80,000 workers (including 10,700 foreigners, mainly Chinese)[210], covers 3 000 hectares, has a port, an airport, a coal-fired power plant generating 2 GW, and is home to 11 foundries[211]. Annual power generation capacity is expected to reach 5 GW, equivalent to Mexico's total capacity[212]. Between its inauguration in 2015 and 2023, the site produced: 4.76 Mt of NPI, 821,000 t of nickel hydroxide, 4.2 Mt of stainless steel, 2 Mt of hot-rolled steel coils, 1.4 Mt of cold-rolled steel coils, 750,000 t of electrolytic aluminum, 140,000 t of electrolytic nickel and 600,000 t of nickel wire[213]. New facilities will increase the site's capacity. In 2018, IMIP already accounted for 50% of the country's nickel production[214].

Another important site, although considerably smaller than IMIP, is Weda Bay Industrial Park (IWIP). Located in Halmahera (North Maluku province), it is operated by PT Weda Bay Nickel, a joint venture owned 90% by Strand Minerals (57% Tsingshan-related entity, 43% Eramet) and 10% by PT Antam, an Indonesian state-owned mining company[215]. IWIP started construction in April 2018. In 2024, the site will have produced 32 million tonnes of wet nickel ore[216] and around 300,000 t of NPI. With ore reserves of 344 million tonnes, the mine life is estimated at 50 years[217]. The site employs around 28,000 Indonesians and 1,800 foreigners, mostly chinese[218].

Among the main foreign private actors operating in Indonesia are China's Tsingshan Holding Group, the world's largest stainless steel producer, which is the majority shareholder in the two biggest industrial sites (IMIP and IWIP), Brazil's PT Vale, which owns three HPAL plants in Indonesia and plans to build more[219], and China's Jiangsu Delong Nickel, which holds a significant number of shares in the PT Virtue Dragon Nickel Industry, PT Obsidian Stainless Steel, and PT Gunbuster Nickel Industry groups, which collectively produce 38% of Indonesia's nickel[220].

2.2 ...And intends to continue its expansion...

2.2.1 Building electric batteries in Indonesia

Indonesia intends to continue its expansion in order to host the entire electric vehicle production chain on its soil. A number of concrete actions have been announced, including investments by Eramet,

[210] Indonesia's nickel sector under scrutiny as Chinese workers allege inhumane working conditions; South China Morning Post; 3 Mars 2023
[211] Indonesia Morawali Industrial Park; The Director's Directory of Industrial Estates; n.d.
[212] From Forest to Electric Vehicules; Mighty Earth; 1 Mai 2024
[213] Indonesia Morowali Industrial Park (IMIP) Produces 4.67 Million Tons of Nickel Pig Iron; Indonesia Miner; 18 Décembre 2024
[214] Jelajah Bahodopi Morowali, Kawasan Tambang PT IMIP, Intip Foto-fotonya; Tribun Palu; 8 Avril 2021
[215] Governance; Weday Bay Nickel; n.d.
[216] 2024 document d'enregistrement universel; Eramet; 2024
[217] Weda Bay Nickel Project; NS Energy; 23 Décembre 2024
[218] IWIP Targetkan Bisa Tambah 10.400 Tenaga Kerja di Weda Bay Pada 2022; Kumparan Bisnis; 2 Juin 2022
[219] Indonesia says nickel miner Vale to build another $2 bln HPAL plant; Reuters; 18 Mars 2024
[220] Refining Power; C4ADS; 4 Février 2025

BSF and Volkswagen in 2023 (including a confirmed $2.6 billion) to enable the construction of electric batteries[221], and BYD a $1.5 billion investment to produce 150,000 electric batteries a year[222].

2.2.2 Building electric vehicles in Indonesia

Eventually, after consolidating its electric battery production capacity, Indonesia will seek to move up the production chain and produce electric vehicles. As early as 2024, Chinese electric vehicle manufacturer Neta announced that it would begin production of fully assembled electric vehicles (CKD) in Indonesia[223]. That same year, Vietnamese electric vehicle manufacturer VinFast announced that it would invest US$1.2 billion to build an electric vehicle manufacturing plant in Indonesia[224].

2.3 ...Despite the limits of this strategy

Indonesia imposes no ESG policy on its operators, and the flexibility of the regulations governing employment, redistribution and environmental protection conditions does not allow for the establishment of a real social and environmental framework.

2.3.1 To the detriment of local employees and populations

Since 2014, the boom in Indonesian nickel mining sites has generated an influx of jobs, but the benefits in terms of working conditions and income remain contested. Employment absorption in these areas increases most during the construction phase, then gradually declines until the twelfth year after construction, as mining development disrupts local agriculture and fisheries and thus limits other employment opportunities[225]. Furthermore, according to data from the BPS (national institute), the average wage in the mining sector will be close to 350 USD in 2024[226], however, in nickel smelters like IMIP, basic wages are often close to the local minimum (≈3.0-3.6 million IDR), forcing workers to rely on overtime for a decent income[227].

Working conditions are marked by frequent accidents and safety violations. The 93 accidents recorded at Morowali (IMIP) between 2015 and 2023 resulted in 91 fatalities and 158 injuries[228]. Intensive use of overtime, often up to 56 hours a week, increases fatigue and risks. Tensions sometimes flare up on mine sites. This was the case in 2023, when an uprising sparked by demands for better wages and conditions

[221] Volkswagen, BASF to Invest in Indonesia's EV Battery Sector; Jakarta Globe; 17 Avril 2023
[222] Indonesia's Electric Battery Industrial Strategy; ASEAN Briefing; 2 Février 2024
[223] Official: Local Production of NETA Electric Cars to Begin Next May 2024; NETA Indonesia; 8 Mars 2024
[224] Vinfest breaks ground on new EV assembly plant in Indonesia; Vingroup; 15 Juillet 2024
[225] CELIOS x CREA: Economic and Health Impact of Nickel Processing Industry; CELIOS; 20 Février 2024
[226] BPS: Rata-rata Upah Buruh Nasional Rp 3,2 Juta per Bulan, Paling Tinggi Buruh Tambang Tembus Rp 5,2 Juta; JawaPos; 15 Juin 2025
[227] Kenaikan Upah di Kawasan IMIP Sangat Lamban & Pelit; ytm; 22 Juillet 2024
[228] The Indonesia Nickel Pickle: The Labor and Employment Disarray at Indonesia Morowali Industrial Park (IMIP); Trend Asia; 5 Septembre 2024

led to the death of two workers, one Chinese, the other Indonesian, against a backdrop of ethnic tensions[229].

2.3.2 To the detriment of the environment

The rapid expansion of Indonesia's nickel industry has led to massive deforestation, disrupting terrestrial and aquatic ecosystems. A geospatial analysis by Climate Rights International (CRI) and the University of California Berkeley, indicates that more than 5,331 hectares of tropical forest have been cleared in Halmahera for nickel concessions, releasing around 2.04 Mt of CO2 stored in these forests[230]. This deforestation modifies watersheds, increasing erosion and exacerbating flooding: villages such as Lelilef experience floods of up to 50 cm in dwellings after rainfall, as a consequence of the removal of upstream forest cover. At the same time, water pollution from mine tailings and discharges from coal-fired power plants compromises access to drinking water: residents have to dig several wells or buy bottled water, as rivers become turbid and brown after rainfall, making the water unfit for consumption[231]. In addition, a decline in fish stocks has been documented: fishermen report that their catches have fallen from ~10 kg/day to ~1 kg/day.

Local surveys report land disputes and intimidation: some local residents refusing to sell their land have been subjected to police and military pressure to give it up at low prices, revealing opaque land acquisition procedures[232]. In Raja Ampat, the cancellation of several permits reflects concern over the destruction of more than 500 ha of forest and threats to the UNESCO-listed coral reefs, following campaigns by Greenpeace and local NGOs[233].

Finally, air quality is degraded by ore dust and emissions from coal-fired power plants: communities report a notable rise in acute respiratory infections, corroborated by studies linking exposure to fine particles to chronic illness[234]. These combined impacts undermine food security and the health of populations, prompting calls for independent assessments, transparent compensation mechanisms and ecological restoration programs.

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[229] Workers' riot in a Chinese nickel company in Indonesia: Could it have been prevented?; Think China; 1 Mars 2023
[230] Nickel Unearthed, The Human and Climate Costs of Indonesia's Nickel Industry; Climate Rights International; Janvier 2024
[231] Indonesian nickel project harms environment and human rights, report says; Mongabay; 26 Février 2024
[232] Nickel Unearthed, The Human and Climate Costs of Indonesia's Nickel Industry; Climate Rights International; Janvier 2024
[233] Indonesia launches rare crackdown on nickel mines in ‘last paradise’; 14 Juin 2025
[234] Nickel Mining in Central Halmahera: Piling Trash, Diminished Water Quality, and Displaced Communities; Aksi Ekologi & Emansipasi Rakyat; 1 Août 2023

2.3.3 Nickel exports still dominated by China

Before the ore export ban, Indonesia exported almost all its nickel in ore form, as the figures for 2012 show. In that year, some 35 million tonnes of nickel ore were exported from Indonesia, 95% of it to China. This pattern will remain similar in 2023, although the products exported will no longer consist of nickel ore but of higher value-added products.

In 2023, Indonesia exported 8.5 Mt of ferronickel derivatives (NPI, etc.) worth around $15 billion[235], 330,000 tonnes of nickel mattes (MHP, nickel sulphates, etc.) valued at around $4.1 billion[236]. Other nickel derivatives and scrap were also exported, but accounted for only a small share of the value of exports. China was the destination of 98% of Indonesian ferronickel exports[237] and 58% of mattes, and Japan 28% of nickel mattes[238].

In terms of imports, it is interesting to note that Indonesia imported 300,000 tonnes of nickel ore from the Philippines in 2023. In fact, some Indonesian mines were unable to deliver enough ore to satisfy the nominal capacities of certain smelters, due to heavy rains, delays in issuing mining quotas, etc.[239] and the suspension of operations of an Aneka Tambang group site due to an investigation into corruption links[240].

3. Nickel at the heart of Indonesian international relations

Since independence, Indonesia has adopted a non-aligned foreign policy. On the one hand, Indonesia is the main partner in the "Super Garuda Shield" initiative, a major military exercise in partnership with the United States and its allies, in direct response to China's ambitions in the South China Sea, which Jakarta criticizes for violating the principles of international law. On the other hand, on the economic front, Indonesia is drawing closer to China. This is reflected, among other things, in major investments in strategic sectors such as nickel. This cooperation is motivated by the search for development opportunities and industrial transformation. The Indonesian government is seeking to diversify its economic partners in nickel mining, in order to reduce their dependence on China[241].

[235] Indonesia Ferro-nickel exports by country in 2023; World Integrated Trade Solutions; n.d.
[236] Indonesia Nickel mattes exports by country in 2023; World Integrated Trade Solutions; n.d.
[237] Indonesia Ferro-nickel exports by country in 2023; World Integrated Trade Solutions; n.d.
[238] Indonesia Nickel mattes exports by country in 2023; World Integrated Trade Solutions; n.d.
[239] Indonesia buying record amounts of Philippine nickel ore due to quota delays, sources say; Business World; 29 Mai 2024
[240] Indonesian nickel smelters turn to the Philippines for ore as local supply tightens; The Business Times; 30 Août 2023
[241] Indonesia moves to reduce Chinese ownership of nickel projects; Financial Times; 25 Juillet 2024

3.1 China

China is by far Indonesia's most important industrial partner, particularly in the nickel sector. Since the Indonesian ban on raw ore exports (effective from early 2020), Chinese investors have turned en masse to setting up processing plants in Indonesia. It is estimated, for example, that Chinese companies have injected several tens of billions of dollars into the Indonesian nickel industry[242]. On several occasions, these Chinese private investments have been backed by loans from the Chinese government[243]. Chinese capital now controls the bulk of the Indonesian industry: it is said to control around 75% of local nickel mines and plants (see section 1.3.2).

Several agreements formalize this cooperation. In 2013, a Sino-Indonesian protocol created the Morowali Industrial Park (IMIP) - a memorandum signed at the time of Xi Jinping's visit to Indonesia[244]. In May 2025, at a high-level meeting, Indonesia and China signed framework agreements on industrial and logistics cooperation - such as a "twin industrial parks" program with China's Fujian province - aimed at attracting investment into Indonesian value chains[245].

This cooperation also extends to research and training. It was in this context that the president of China's Central South University announced his intention to train 100 PhD engineers, 1,000 engineers and 10,000 Indonesian skilled workers in the nickel industry over the next six years[246]. Similarly, a research laboratory shared by China and Indonesia on materials for new energies and metallurgical engineering technology (called the "GEM-ITB-CSU Joint Research Laboratory"), was inaugurated in August 2024. The laboratory is funded by the Chinese company GEM Co. Ltd (GEM) and established jointly by the Bandung Institute of Technology (ITB) and the Central South University (CSU)[247].

This relationship has raised American and European concerns about the economic balance and environmental governance of the Indonesian nickel industry[248].

[242] PacNet #55 – Centralizing Indonesia's nickel industry: The true costs of Chinese investments; Pacific Forum; 8 Août 2024
[243] Tsingshan Group Secures 10-year Loan of $384 Mln for NPI Smelter in Indonesia; Shanghai Metals Market; 18 Février 2014
[244] How Indonesia Used Chinese Industrial Investments to Turn Nickel into the New Gold; Carnegie Endowment For International Peace; 11 Avril 2023
[245] Indonesia-China sign landmark agreements to boost bilateral ties, regional peace; Indonesia Business Post, 26 Mai 2025
[246] Feature: China, Indonesia collaborate to cultivate skilled workforce for new energy, metallurgy industries; Xinhua; 13 Novembre 2024
[247] Promoting Technological and Cultural Cooperation, Creating a New Mode of China-Indonesia Cooperation GEM-ITB-CSU China-Indonesia Joint Research Laboratory for New Energy Materials and Metallurgical Engineering Completed and Operational; GEM; 29 Août 2024
[248] Indonesia's American EV dream shunted into slow lane; Reuters; 20 Novembre 2023

3.2 United States of America

Since 2023, the United States has made Indonesian nickel a strategic priority in its policy of sourcing critical minerals. During President Widodo's visit to Washington (November 2023), Presidents Biden and Widodo emphasized Indonesia's "global leadership position" in the nickel and cobalt sectors[249]. In particular, a bilateral communiqué announced the joint elaboration of a "Critical Minerals Action Plan" leading to a future Indonesia-US "Critical Minerals Agreement". This followed Jakarta's request to Washington to open negotiations for a limited trade agreement on battery inputs (including nickel)[250]. However, not wishing to grant customs and tax advantages to entities controlled by Chinese shareholders, US senators have expressed reservations about this potential pact[251].

Similarly, Indonesian actors cannot access the provisions of the Inflation Reduction Act (IRA), which is supposed to provide tax credits and suspensions for international partners contributing to critical US industries, because the Chinese presence in the Indonesian mining fabric exceeds the limits set by the USA[252]. Indonesia is in talks with several potential investors to build smelters in which Chinese companies would hold less than a 25% stake, according to a person familiar with the government's position. These efforts come as the industry faces increasing pressure from potential customers in South Korea and Japan to comply with the IRA, with supply chain companies also keen to benefit from the new law, these people said[253].

In July 2024, Assistant Secretary of State Jose Fernandez spoke in Jakarta of the idea of creating a "critical minerals forum" and encouraged Indonesia to join the US-led Minerals Security Partnership[254].

3.3 European Union

The Indonesian government, seeking to diversify its outlets, is courting various countries, but regions such as Europe's ESG requirements are complicating investment. What's more, the contentious relations illustrated by the WTO verdict against Indonesia's protectionist policy are not conducive to improving relations between these two countries with regard to nickel (cf. section 1.3.1).

Nickel is also an issue in the free trade and cooperation negotiations between the EU and ASEAN/Indonesia. The two parties have not concluded a comprehensive agreement, but bilateral

[249] Joint Statement from the Leaders of the United States and the Republic of Indonesia: Elevating Relations to a Comprehensive Strategic Partnership; White House; 13 Novembre 2023
[250] Indonesia's American EV dream shunted into slow lane; Reuters; 20 Novembre 2023
[251] PacNet #55 – Centralizing Indonesia's nickel industry: The true costs of Chinese investments; Pacific Forum; 8 Août 2024
[252] Diversifying Investment in Indonesia's Mining Sector; Center for Strategic & International Studies; 11 Juillet 2024
[253] Indonesia moves to reduce Chinese ownership of nickel projects; Financial Times; 25 Juillet 2024
[254] Mineral security partnership and energy geostrategy; Indonesia Business Report; 6 Août 2024

discussions systematically touch on the export of raw materials[255]. On the sidelines of French President Macron's state visit in May 2025, a trilateral strategic partnership was signed between Indonesia (sovereign wealth fund INA and Danantara Agency) and French mining group Eramet[256]. This memorandum of understanding aims to create a joint nickel investment platform, covering everything from mining and refining to EV battery materials.

3.4 South Korea

South Korea and Indonesia have signed the IK-CEPA, an Indonesia-Korea free trade agreement, effective at the end of 2020. As early as December 2020, Jakarta announced a mega-project with South Korean multinational LG Energy Solution: a $9.8 billion memorandum of understanding to create a site from ore to recycling.[257]. However, shortly after the HLI Green Power joint venture (LG-Hyundai) inaugurated Indonesia's first battery cell plant in 2024, LG Energy Solution officially withdrew its investment in the initial project, citing market conditions and delays[258]. Indonesian ministers have indicated that Antam (Aneka Tambang) and Indonesia Battery Corporation remain ready to work with other foreign partners to supply the local battery industry.

3.5 Australia

Australia has strengthened its bilateral cooperation with Indonesia around electric vehicles (EVs) and critical resources, capitalizing on Indonesia's position as a major nickel exporter. In November 2023, the Australian and Indonesian Industry Ministers signed a Memorandum of Understanding establishing a "collaborative mechanism" for EVs and batteries. This framework will map mineral supply chains, launch joint research projects and encourage industrial partnerships (particularly for nickel and lithium)[259]. This initiative is based on the Indonesia-Australia Economic Partnership Agreement (IA-CEPA), which comes into force in 2020.

At the highest level, Australian Prime Minister Anthony Albanese visited Jakarta in May 2025 to discuss energy transition. In concrete terms, Indonesian and Australian companies have already embarked on joint projects: for example, in July 2024, the first EV battery plant in ASEAN (Hyundai-LG-Indonesian Battery Corp consortium) was inaugurated in Indonesia (West Java), at a cost of around $1 billion[260].

Australia is particularly keen to leverage its research capabilities with Indonesia, which could lead to the development of joint strategies. Australia's FBICRC and Indonesia's National Battery Research Institute (NBRI) signed a Memorandum of Understanding (MoU) in Jakarta, in the presence of Bill Johnston,

[255] Renforcement des relations entre l'UE et l'Asie : l'UE et l'ASEAN concluent un partenariat stratégique; Ministère fédéral des Affaires étrangères (Allemagne); 2 Décembre 2020
[256] Indonesia, France ink strategic nickel partnership to boost EV battery ecosystem; Tanahair; 28 Mai 2025
[257] Indonesia says $9.8 billion EV battery MOU agreed with LG Energy Solution; Reuters; 30 Décembre 2020
[258] South Korea's LG Energy Solution pulls out from Indonesia EV battery investment; Reuters; 21 Avril 2025
[259] Indonesia and Australia cooperation on electric vehicles; Minister of Industry and Science; 24 Novembre 2023
[260] Southeast Asia's First EV Battery Plant Begins Operations in Indonesia; ASEAN Briefing; 5 Juillet 2024

Western Australia's Minister for Energy[261]. This agreement is part of a bilateral action plan signed in July 2023 between the Government of Western Australia and the Indonesian Chamber of Commerce and Industry, aimed at structuring industrial and academic exchanges targeting battery chains and the nickel-lithium-cobalt ecosystem[262]. Similarly, a program set up in May 2024, entitled Partnership for Australia-Indonesia Research (PAIR) Sulawesi, received joint funding of AUD 12 M (AUD 6 M each) via the AIC center and Hasanuddin University, with a component dedicated to the challenges of critical minerals, including nickel[263].

4. Conclusion

Indonesia has succeeded in capturing a large share of nickel's added value, becoming world leader and influencing prices to its advantage, by banning exports of its raw ore and gradually establishing a nationalization framework. However, this success is based on strong technological and commercial dependence on China, posing a geopolitical and market diversification risk. Western attempts to exert pressure (WTO disputes, conditions of access to US subsidies) have not yet led to a significant change of course. In the future, Jakarta will have to balance its aspiration to stabilize prices and preserve its leadership while diversifying its partnerships to mitigate the vulnerabilities associated with too great a concentration of dependence on a single actor.

[261] Indonesia and Australia cooperation on electric vehicles; Minister of Industry and Science; 24 Novembre 2023
[262] Australia and Indonesia cooperate on battery research; AuManufacturing; 15 Septembre 2023
[263] Australia and Indonesia co-invest in university research in ground breaking agreement; The Australia-Indonesia Center; 30 Mai 2024

The Nickel Industry in the Philippines

Introduction

As the world's second-largest nickel producer, the Philippines is a key actor in the nickel supply chain. This report provides a comprehensive analysis of the Philippine nickel industry, covering the mining and processing phases, the regulatory framework, trade flows, future prospects and the industry's role in Philippine international relations.

Today, the Philippines and China are in a situation of co-dependence, with the bulk of Philippine ore exported in the raw state to China, and the majority of Chinese imports of this ore coming from the Philippines. For the Philippines, a long-standing ally of the United States, this dependence limits the local capture of added value and makes the economy vulnerable to market fluctuations. The government's strategy is to remedy this situation by gradually forcing local processing, through legislative reforms and industrial partnerships.

This document highlights the strengths and weaknesses of this strategy, in an environment marked by regulatory uncertainties, geopolitical tensions and heightened regional competition. It thus offers a clear reading of the dynamics at play to guide a detailed understanding of Philippine interests in the nickel sector.

Table of Contents

Abbreviations

ADB - Asian Development Bank

ASEAN - Association of Southeast Asian Nations

BOI - Board of Investments

BSP - Bangko Sentral ng Pilipinas

DENR - Department of Environment and Natural Resources

DOE - Department of Energy

DTI - Department of Trade and Industry

EITI - Extractive Industries Transparency Initiative

LME - London Metal Exchange

LGU - Local Government Unit

MGB - Mines and Geosciences Bureau

PNIA - Philippine Nickel Industry Association

PPP - Public-Private Partnerships

R&D - Research and Developement

UNCTAD - United Nations Conference on Trade and Development

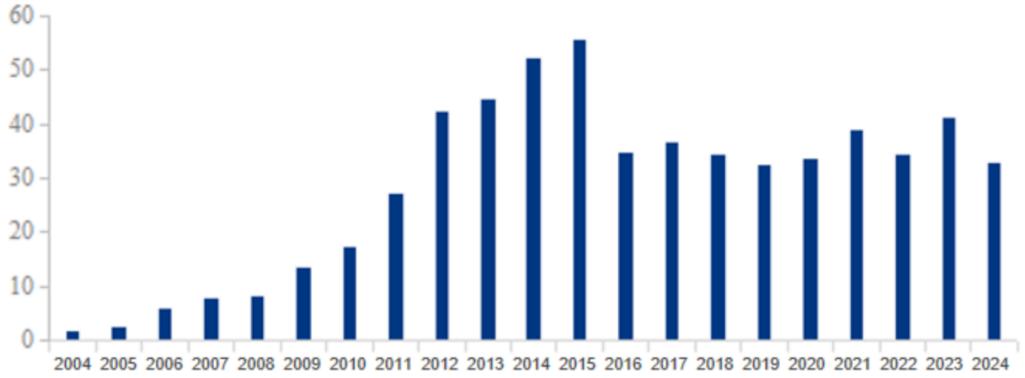
1. An industry facing difficulties in capturing added value

1.1. The current situation: virtually no local treatment

1.1.1. A world leader in nickel mining

The Philippines is one of the world's largest nickel producers. In 2022, the 345,000 tonnes of nickel mined in the Philippines accounted for around 11% of the world total[264]. In the same year, the Philippines produced around 45,000 tonnes of cobalt-nickel sulphide locally. With proven reserves of some 4.8 million tonnes of nickel content[265], Philippine reserves are estimated at 3.7% of the world total[266].

Figure 1. Annual nickel ore production in the Philippines, in 10,000 tonnes[267]



Philippine ores are mainly derived from laterite ore. The latter are particularly well-suited to hydrometallurgical processes for batteries, although processing plants in China are also able to use them for stainless steel production[268]. The Philippines also extracts scandium oxalate. However, the quantities extracted are negligible.

In 2022, the mining sector's share of the Philippines' national GDP was just over 0.5%, and the sector accounted for 0.5% of the country's total employment. In the same year, central and regional governments collected $806 million in mining-related taxes, royalties and fees[269]. Each of these indicators has been growing annually for the past decade.

[264] The Mineral Industry of the Philippines; U.S. Geological Survey; Octobre 2024
[265] Top 9 Countries by Nickel Reserves; Investigative New Network; 23 Octobre 2024
[266] COMMODITIES 2025: New law could spur Philippine nickel mining to new heights; S&P Global; 26 Décembre 2024
[267] The Philippines play a key role in the global nickel industry; My Steel; 13 Février 2025
[268] The Philippines May Face Numerous Challenges in Attempting to Ban Nickel Ore Exports by Emulating Indonesia; Shanghai Metals Market; 12 Février 2025
[269] Mining Industry Statistics, Bureau des Mines et Géosciences des Philippines; Août 2023

Le secteur minier philippin comprend également les industries de l'or et du cuivre, même si le secteur du nickel reste le plus important, représentant 47% de la production du secteur en valeur au premier semestre 2023, période marquée par des prix du nickel particulièrement bas[270].

The Philippines processes little nickel locally, and exports most of its nickel ore, almost exclusively to China. Wet nickel ore, which generally contains slightly less than 1% nickel, was sold at around $30 per tonne in 2023.

1.1.2 The local production chain lacks nickel processing capacity

1.1.2.1 Extraction

Most Philippine nickel comes from open-pit laterite mines, located mainly in the country's tropical coastal regions. In 2023, the Philippines mined around 40 million tonnes of nickel ore[271]. Note that this figure is approximate, as it includes both wet and dry ore, and wet ore can be up to 25% heavier than dry ore. In 2024, 36 mines were extracting nickel in the Philippines[272].

The following table lists the 15 mines producing more than 500,000 tonnes of nickel ore in 2022. The following table cross-references US Geological Survey data for 2024[273], the Operating Metallic Mines in the Philippines June 2024 report of the Mines and Geosciences Bureau des Philippines[274] and other sources. The reference year is 2022.

[270] Nickel and nickel products leads in H1 2023; Bureau Officiel des Mines et Géosciences des Philippines; 2023
[271] World Integrated Trade Solutions; 2023
[272] Operating Metallic Mines in the Philippines as of June 2024; Mines and Geosciences Bureau; Juin 2024
[273] The Mineral Industry of the Philippines; U.S. Geological Survey; Octobre 2024
[274] Operating Metallic Mines in the Philippines as of June 2024; Mines and Geosciences Bureau; Juin 2024

Table 1. Main nickel mines in the Philippines

Mine / Project	**Province**	**Operator *(main owners)***	**Annual production** In hundreds of thousands of tons
Taganito	Surigao del Norte	Taganito Mining Corp. *(Nickel Asia Corporation 65%; Pacific Metals Co 33.5%)*[275]	5 574 *(14% of national produciton)*
Rio Tuba	Palawan	Rio Tuba Nickel Mining Corp. *(Nickel Asia Corporation 65%; Pacific Metals Co 33.5%)*	3 028
Carrascal Nickel Project	Surigao del Sur	Carrascal Nickel Corp. *(CTP Construction & Mining Corp.)*	2 873
Adlay Cagdianao Tandawa Project	Surigao del Sur	CTP Construction & Mining Corp. *(share ownership unknown)*	2 667
East Coast Nickel	Dinagat Islands	East Coast Mineral Resources Co. Inc. *(Cagdianao Mining Corp.)*	1 308
Eramen Santa Cruz Mining Project	Zambales	Eramen Minerals Inc. *(Eramen Holding Corp.; private investors)*[276]	1 271
Agata Mining Ventures Inc.	Surigao del Norte	Agata Mining Ventures Inc. *(TVIRD 60 %; Minimax Mineral 25 %; others 15 %)*	1 190
Dinagat Nickel Mining Operations	Dinagat Islands	Century Peak Holdings Corp. *(Wilfredo Keng 60%; Colony Real Estate Development Weifang Co. Ltd. 8%)*	973

[275] Opérations de nickel de Taganito Mining Corporation, Surigao del Norte, Philippines; Ej Atlas; 2 Mai 2022
[276] Mine profile: Eramen Minerals Inc.; Philippine Center for Investigative Journalism; 31 Mars 2021

Marcventures M&D Corp	Surigao del Sur	Marcventures Mining & Development Corp. *(Marcventures Holdings Inc. 100%)*[277]	972
Homonhon Lateritic Nickel/Iron Project	Eastern Samar	Nickelace, Inc. *(share ownership unknown)*	967
San Roque Metals, Inc.	Agusan del Norte	San Roque Metals, Inc. *(Gutierrez family)*[278]	953
Mine de Pulot Sofronio	Palawan	Citinickel Mines & Development Corp. *(Oriental Peninsula Resources Group Inc. and other)*[279]	888
Emir Mineral Resources Corp.	Eastern Samar	Emir Mineral Resources Corp. *(private investors)*[280]	878
LNL Archipelago Minerals Santa Cruz Mining Project	Zambales	LNL Archipelago Minerals, Inc. *(LNL Resources Inc. Domestic Corp.; private investors)*[281]	770
Santa Cruz - Candelaria Mining Project	Zambales	Zambales Diversified Metals Corp. *(DMCI Holdings; private investors)*[282]	668

Among Philippine mining operators, the main ones are Nickel Asia Corporation (NAC) and CTP Construction & Mining.

Nickel Asia Corporation (NAC) operates five active mines (Taganito, Rio Tuba, Hinatuan, Cagdianao, and Dinapigue) and holds a 10% stake in the Taganito nickel processing group HPAL Nickel Corporation[283]. This makes NAC arguably the most central actor in the Philippine nickel industry. NAC is

[277] Marcventures Mining and Development Corporation; Philippine Nickel Industry Association
[278] SR Metals Inc Information; Rocketreach; n.d.
[279] Mine profile: Citinickel Mines and Development Corp.; Philippine Center for Investigative Journalism; 31 Mars 2021
[280] Mine profile: Emir Minerals Resources Corp.; Philippine Center for Investigative Journalism; 31 Mars 2021
[281] Mine profile: LNL Archipelago Minerals Inc.; Philippine Center for Investigative Journalism; 31 Mars 2021
[282] Mine profile: Zambales Diversified Metals Corp.; Philippine Center for Investigative Journalism; 31 Mars 2021
[283] Nickel Asia Corporation; Annual Report 2017

26% owned by Japan's Sumitomo Metal Mining Corporation Ltd. and three Filipino industrialists share 46% of the shares: Manuel Zamora, 25.6%, Philip Ang, 13.2% and Luis Vitara, 8.4%[284].

CTP Construction & Mining Corp. controls 10% of Philippine nickel. It declares that it is majority-owned by Philippine entities[285], but the chain of ownership is not verifiable with open-source research.

For a large number of mining operators, shareholding remains highly opaque. An in-depth study of shareholdings may reveal hidden foreign capital. For example, although the chain of ownership of Eramen Holding Corp. which holds shares in Eramen Minerals Inc. is not available from open sources and the company is domiciled in the Philippines, the $1 million grant received by the U.S. Trade and Development Agency in 2024 suggests links with the USA[286].

1.1.2.2 Traitement

Only two nickel processing plants are in operation in the Philippines, exporting around 45,000 tonnes of cobalt-nickel sulphides per year[287]. These are HPAL hydrometallurgical plants, both built in partnership with Japanese multinational Sumitomo Metal Mining (SMM). In both cases, the HPAL (High Pressure Acid Leaching) process is used to treat local laterites, recovering the nickel and cobalt and transporting them to Japanese refineries.

The first plant is Coral Bay Nickel Corporation (CBNC): commissioned in 2005, it produces around 24,000 t/y of nickel (with 1,500 t/y of cobalt) in the form of mixed sulfide[288]. Since January 7, 2025, SMM has been the sole shareholder of CBNC (previously also 15.6% owned by Nickel Asia Corporation)[289].

The second is Taganito HPAL Nickel Corporation in Taganito: inaugurated in 2013, this plant has a production capacity of 36,000 t/year of nickel and 3,000 t/year of cobalt[290]. THPAL is 75% owned by SMM, 15% by Mitsui & Co Ltd, and 10% by Nickel Asia Corporation.

Apart from this infrastructure, no other nickel metallurgy plants are in commercial operation in the Philippines. This is mainly due to high initial investment costs, lack of local expertise and an uncertain regulatory environment. To view plans for future ore processing plants in the Philippines (see section 1.2.3).

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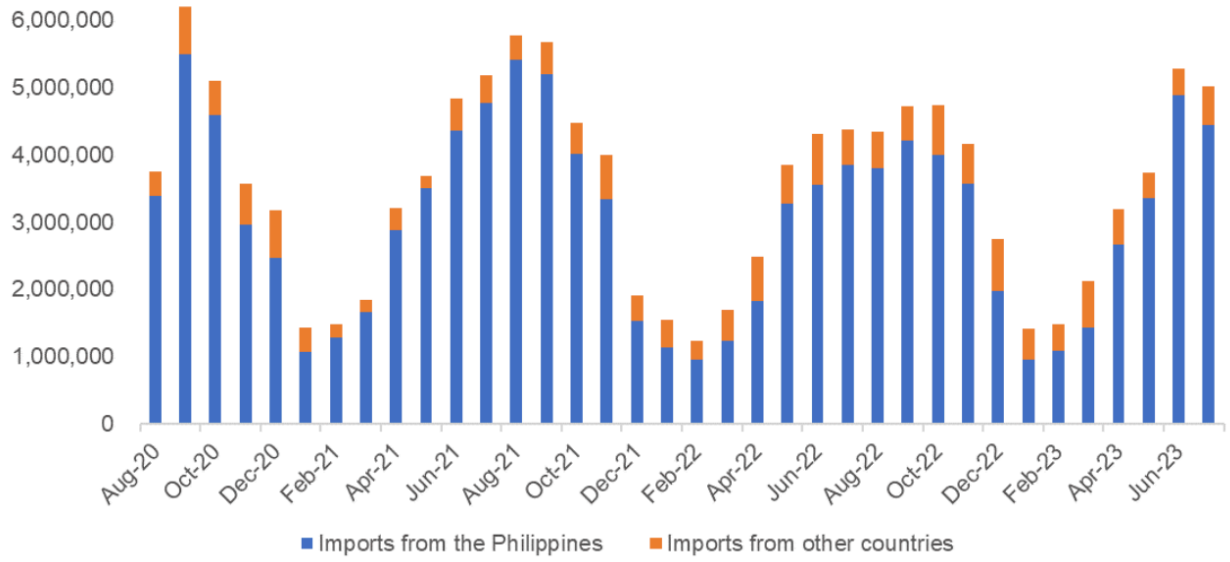
[284] Nickel Asia Corporation; Marketscreener
[285] CTP Construction and Mining Corporation; Philippine Nickel Industry Association; n.d.
[286] Partnership Launched to Implement U.S.-funded Php280 Million Program for Philippine Critical Minerals Sector; Ambassade des Etats-Unis aux Philippines; 17 Novembre 2023
[287] The Mineral Industry of the Philippines; U.S. Geological Survey; Octobre 2024
[288] Sumitomo Metal expends its high-pressure acid leach plant in Philippines; Yeih Corporation; Juillet 2017
[289] SMM to wholly own Philippine Coral Bay nickel smelter; Argus Media; Janvier 2025
[290] HPAL Technology for Nickel Recovery; Suitomo Metals Mining

1.1.3. Exporters in a monopsony situation

The Philippines exports 98.5% of its nickel ore to China. In 2023, 39.7 million tonnes of ore were exported to China, representing a value of $1.06 billion[291]. Exports to China are tending to increase, but plans to ban the export of raw ore could break this trend. China's dominance as a destination for Philippine ore in turn reflects Chinese dependence on the Philippines. Indeed, Philippine ore accounts for between 75% and 92% of China's nickel ore imports[292].

Figure 2. Share of Philippine ore in Chinese imports, in tonnes



Graphic from My Steel, with data from China's General Administration of Customs[293].

Other importers of Philippine nickel include Indonesia. While Indonesia imported only 215,000 tonnes of nickel ore in 2023, worth $35 million, the Shanghai Metals Market reports that 10.35 million tonnes were sent to Indonesia in 2024[294]. This increase can be explained by factors endogenous to Indonesia, such as heavy rains, delays in the issuance of mining quotas, and so on[295] and the suspension of operations of an Aneka Tambang group site due to an investigation into corruption links[296].

Japan imported around 300,000 tonnes of nickel ore and 45,000 tonnes of cobalt-nickel sulfides (CNS). The MSPs come from Sumitomo Metals Mining's two HPAL nickel processing plants in the

[291] World Integrated Trade Solutions; 2023
[292] Nickel prices up with Indonesia buying ore from the Philippines; My Steel: 30 Août 2023
[293] Nickel prices up with Indonesia buying ore from the Philippines; My Steel: 30 Août 2023
[294] The Philippines May Face Numerous Challenges in Attempting to Ban Nickel Ore Exports by Emulating Indonesia; Shanghai Metals Market; 12 Février 2025
[295] Indonesia buying record amounts of Philippine nickel ore due to quota delays, sources say; Business World; 29 Mai 2024
[296] Indonesian nickel smelters turn to the Philippines for ore as local supply tightens; The Business Times; 30 Août 2023

Philippines. They are then processed (notably into nickel sulfates) at the Harima and Niihama Nickel refineries in Japan, also owned by Sumitomo Metals Mining[297]. These components are needed to manufacture electric batteries.

Finally, South Korea imported 55,000 tonnes of nickel ore worth $43 million.

1.2. A desire to capture added value confronted with practical challenges

Aware of the growth potential represented by local nickel processing, Philippine decision-makers are closely observing the Indonesian model, which has largely limited raw ore exports and is gradually nationalizing actor in the sector.

1.2.1. A future ban on the sale of raw ore?

On February 3, 2025, the Philippine Senate passed a bill banning nickel ore exports as early as 2030. Senate President Francis Escudero indicated that, if enacted, the bill would be implemented in five years, to give miners time to build processing plants[298]. However, the possibility of an export ban would have major disruptive consequences for China, whose Philippine ore feeds almost all of its nickel processing chain at the start of the production chain. It is estimated that between 20,000 and 35,000 jobs in China are directly dependent on NPI production[299], from Philippine ore. This bill was initially examined by a bicameral commission in June 2025, and the measure was finally postponed to an unspecified date[300].

The reason for this possible ban is the desire to capture more added value by hosting refineries on its soil, similar to what Indonesia has managed to achieve since 2014. However, this measure is part of a broader context of geopolitical tensions with China, particularly in the South China Sea, and strategic alignment with the United States. In fact, this initiative is considered premature by many specialists.

Indeed, the Philippine Nickel Industry Association (PNIA) strongly opposes this bill, insisting that such a ban must be preceded by the establishment of a regulatory framework and tax incentives to encourage investment, which is not sufficiently the case today (c.f. section 2.). In fact, several factors may complicate the repetition of the Indonesian model in the Philippines. The lack of good-quality infrastructure (roads, ports, etc.), higher energy prices than in Indonesia ($0.18/kwh vs. $0.10/kwh) and an unfavorable economic climate for investment in this field, given the current nickel price, are

[297] HPAL Technology for Nickel Recovery; Suitomo Metals Mining
[298] Chiz: Senate nods banning raw mineral exports to give rise to dev't of higher-value goods; Sénat des Philippines; 3 Février 2025
[299] According to a comparative estimate based on IMIP in Indonesia (where ~48,000 jobs are linked to the production of 600,000 t of NPI-containing nickel), China, with annual production of around 400,000 t, would mobilize around 25,000 direct jobs. This calculation takes into account certain endogenous factors, such as higher productivity in China, due to more advanced automation and industrial integration.
[300] Philippines axes planned ban on nickel ore exports; Argus; 11 Juin 2025

arguments often mentioned[301]. Also, the instability caused by the military actions of the Communist Party of the Philippines may contribute to slowing down investment[302]. Moreover, an analysis of the differences in investment strategies between Chinese and Western actors could suggest that the Philippine strategy is inappropriate for Western investors: China and its mining groups control the downstream value chain for electric batteries, which makes upstream investments more feasible, while Western groups, often specialized in certain stages of the production chain, place greater emphasis on short-term profits[303]. Furthermore, conventional investment models used in the West, such as discounted cash flow (DCF) analysis, undervalue long-term profits, which hampers their commitment to upstream mining projects.

Ultimately, the main beneficiary of the ban would be the United States, as the ban would contribute to their strategy of containing China by colliding with its economy, and represent an opportunity to sanctuarize Philippine ore - provided American investment flows in to build nickel processing capacity and control capital, similar to China's strategy in Indonesia. The Philippine Senate's temporization of this measure can be interpreted as waiting for clarification of the Trump administration's international policy and more credible promises of investment in processing capacity.

1.2.2. An attractive regulatory framework

Under the Philippine Mining Act of 1995 (Republic Act 7942), the State has the authority to explore and exploit mineral resources. It can do so either directly, or by entering into shared production agreements (MPSAs), which require a minimum 60% shareholding by Filipino citizens. There are, however, less restrictive alternatives for foreign investors, if the state decides instead to form a joint venture or a financial and technical assistance agreement (FTAA), the latter being open to foreign companies. Mining permits (exploration or extraction) are issued by the Department of Environment and Natural Resources (DENR), with the support of the Mines and Geosciences Bureau (MGB) and the Environmental Management Bureau (EMB). Project approval also requires an Environmental Certificate (ECC) and the Free, Prior and Informed Consent (FPIC) of indigenous peoples, in accordance with Republic Act 8371 (IPRA)[304].

A reform of the regulatory framework is currently being drawn up. Its aim is to facilitate and encourage investment, particularly foreign investment, in the sector[305] (see section 1.3.3.).

[301] Following Indonesia's Ban on Ore Mining? Can the Philippines' "Ore Mining Ban" Policy Impact the Nickel Industry; Shanghai Metals Market: 9 Mai 2025
[302] The Communist Insurgency in the Philippines; Armed Conflict Location and Event Data (ACLED); 13 Juillet 2023
[303] Can the Philippines replicate Indonesia's nickel ore export ban success?; Project Blue; n.d.
[304] Mining Comparative Guide; Mondaq; Février 2025
[305] PBBM wants simplified mining fiscal regime; Presidential Communications Office; 16 Octobre 2024

1.2.3 Towards the construction of local nickel processing capacity

As part of its strategy to create value locally, Nickel Asia Corporation and DMCI Mining Corporation signed a memorandum of understanding in March 2025 to study a nickel processing site in the archipelago[306]. The current study must identify the optimum technology, the ideal location, the source of nickel supply and the necessary permits[307].

Discussions with foreign partners have also emerged. Several projects are taking shape with South Korean partners. On the one hand, a joint venture is being formed since 2023 between the South Korean Posco Future M Company and the Filipino Micheal Chen Group (which includes Nickel Prime Solutions Inc.), with the aim of processing mixed hydroxide precipitates (MHP), as part of the production chain for electric batteries[308]. The process used will be a new technology currently being co-developed by Posco and South Korea's Industrial Science and Technology Research Institute[309]. The MHP will then be processed into cathodes in South Korea, before being exported to the North American market. On the other hand, Philippine General Minerals Project, Inc (PGMPI) and Busan Equity Partners (BEP) have signed a Memorandum of Agreement in 2023, providing for the establishment of a complete refinery to process critical minerals in Davao, to be followed by nine other facilities in other parts of the country[310]. At present, PGMPI uses Turkish technology, but discussions and further collaboration are underway with Lynas Rare Earth (Australia), John Wood Group (UK) and a Korean technical partner[311].

It was announced in 2023 that discussions had been held between the Chinese group Zhejiang Huayou Cobalt and a Philippine producer for the construction of a third HPAL plant[312], but no public information on the subject has surfaced since, including in the Chinese company's 2024 annual report[313].

1.3. Decentralized governance prevents the application of ESG policies

1.3.1 The political autonomy of local actors...

Local government units (LGUs) enjoy a high degree of autonomy. According to Philippine classifications, an LGU can be the government of a province, an independent city, a component city, a municipality or a barangay.

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[306] Nickel Asia, DMCI Mining to partner on nickel processing plant in PHL; Business World; 6 Mars 2025
[307] DMCI Mining and NAC announce strategic collaboration for nickel processing plant study; Philippines Nickel Industry Association; 7 Mars 2025
[308] POSCO Future M Advances Nickel Production in the Philippines Leveraging Eco-friendly Refinement Technologies; Posco Future M; Août 2023
[309] Posco, MC to produce nickel for EV batteries in the Philippines; Just Auto; Août 2023
[310] Busan Equity Partners (BEP) Promotes Critical Minerals Project in the Philippines with PGMPI; Business Wire; 13 Juin 2023
[311] PGMPI, BEP sign MOA on critical minerals venture; Business Miror; 30 Juin 2023
[312] Huayou Cobalt to Build HPAL Plant in the Philippines; Shanghai Metals Market; 20 Avril 2023
[313] Zhejiang Huayou Cobalt Co., Ltd. 2024 Annual Report; 2024

The Local Government Act (RA 7160) states that LGUs may “pass ordinances necessary, proper or incidental to effective governance”; this therefore includes the ability to legislate on the use of natural resources (including environmental matters), provided that such ordinances are “consistent with superior laws”[314]. These ordinances grant “the power to expropriate in the public interest”, subject to payment of compensation[315]. It is within this framework that the government of the Province of Palawan declared a 50-year ban on the issue of new mining permits in 2025[316] [317]. Moreover, the Mining Act of 1995 stipulates that LGUs contribute to the Environmental Impact Assessment to which mining groups are subject[318]; and LGUs are responsible for granting “Mayor's Permits” (operating and/or opening permits), necessary for companies to begin operations[319]. However, mining companies have no obligation to local communities.

1.3.2. ...does not guarantee the application of policies to protect local populations...

Despite a degree of autonomy guaranteed to local actors by the institutional set-up, this power can quickly become limited when faced with mining groups. Moreover, the latter are under no obligation from the State to reserve part of their shares for local communities[320].

Illustrating the balance of power between LGU and mining groups, in 2025 the Philippine Supreme Court ruled in favor of Agusan Petroleum and Mineral Corp. in a dispute with the Province of Occidental Mindoro, overturning a moratorium banning mining in the province for 25 years[321] . The Supreme Court ruled that the province had exceeded its powers and acted unconstitutionally[322].

In addition, associations, political figures and international NGOs are denouncing dishonest practices. A study conducted by Amnesty International between 2023 and 2024 among 90 members of local communities in Santa Cruz (Zambales) and Brooke's Point (Palawan) reports an increase in health problems, metallic water pollution and deforestation following the start of mining activities. In addition, she reports that local communities were corrupted in obtaining mining agreements from mining companies, and that insufficient information was provided[323]. These practices are contrary to the Indigenous Peoples' Rights Act (RA 8371) and the "free, prior and informed consent" (FPIC) mechanisms. Former Philippine Congresswoman Eufemia C. Cullamat shares these grievances and deplores the policy of mining capacity expansion of the Marcos Jr. administration, elected president in 2022[324].

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[314] RA 7160 – Local Government Code
[315] RA 7160 – Local Government Code
[316] Philippines' Palawan approves 50-year ban on new mining permits; France 24; 6 Mars 2025
[317] The Indigenous Peoples and Ecological Concerns That Prompted the 50-Year Palawan Mining Moratorium; Philippine Collegian; 7 Avril 2025
[318] RA 7942 – Mining Act of 1995
[319] The local government code of the Philippines; Department of Interior and Local Government
[320] Mining Law 2021; International Comparative Legal Guides; 2021
[321] LGUs’ ban on mining ruled unconstitutional; Business World; 14 May 2025
[322] Nickel miners upbeat as Supreme Court stops Mindoro ban; Business Inquirer; 16 Mai 2025
[323] Philippines: Nickel mining projects approved despite inadequate consultation and serious risks to communities’ health and environment; Amnesty International; Janvier 2025
[324] #wegotmail: Bayan Muna Mindanao calls for the repeal of the Mining Act of 1995; Sunstat; 11 Mars 2025

1.3.3 ... in the face of a central government that prioritizes the attractiveness of the mining industry

The regulatory framework for the mining industry is being updated at the initiative of the Marcos Jr. government. Recognizing the environmental and social shortcomings of the 1995 Mining Act, the Department of Environment and Natural Resources (DENR) is revising the Free, Prior and Informed Consent (FPIC) mechanism to unify consultations with indigenous communities throughout the mining cycle, thereby strengthening the protection of their rights. Rehabilitation guarantees are to be strengthened through an increase in mandatory funds, stricter monitoring mechanisms and sanctions in the event of non-compliance, to ensure that sites are rehabilitated. Finally, social obligations will be increased: operators will have to expand their local development programs (SDMP) and pay more significant royalties to communities, with a legal minimum of 1% for indigenous peoples[325].

However, the revision of the Mining Act of 1995 is not just about its environmental aspects. Indeed, the government regularly reiterates that its priority is to encourage the attractiveness of the Philippines[326]. The government has announced its intention to put in place a less restrictive regulatory framework and facilitating measures for investors and mining companies, notably through the digitization of mining permits and a new royalty system[327]. Another decision illustrating this trend more concretely took place in December 2021, when the Ministry of the Environment and Natural Resources lifted the moratorium on the acceptance, processing and/or approval of prospecting permit applications[328]. This de facto revokes the previous government's ban on open-pit mining, which applied nationwide[329].

2. A lack of public policies to support the sector

There is no direct support for investment in the mining industry in the Philippines, either through subsidies or tax incentives. However, some indirect measures have been put in place to encourage the industry.

2.1 Administrative facilitation

With the aim of facilitating and speeding up administrative procedures, in 2024 the Department of the Environment (DENR) launched an online mining permit application system in three key regions (CARAGA, Davao, Mimaropa). According to Undersecretary Carlos David, this platform drastically reduces approval times from the current 7 years to 2 years[330]. The DENR has also introduced a "parallel

[325] Mining Comparative Guide; Mondaq; Février 2025
[326] PBBM wants simplified mining fiscal regime; Presidential Communications Office; 16 Octobre 2024
[327] Philippines Aims for Nickel Dominance with New Mining Reforms; Carbon Credits; 2 Janvier 2025
[328] Under-mining the Law: When Local Government Units Overstep Jurisdiction for Environmental Protection; Fortun Narvasa Salazar; 21 Mai 2025
[329] Philippines' biodiversity under increased risk as open-pit mining ban is lifted; National Committee of The Netherlands; Janvier 2022
[330] Chamber of Mines Pushes for Policy Reforms; Philippine Resources; 01 Novembre 2024

processing" mechanism for authorizations. Companies can now initiate certain administrative procedures without having to wait for approval from other bodies (LGU, NCIP for indigenous communities, etc.), in order to avoid procedural bottlenecks[331].

2.2 Infrastructure adaptations

The lack of suitable infrastructure is often cited as a factor diminishing Philippine competitiveness. In a bid to fill this gap, the modernization of the Luzon Economic Corridor was agreed at the trilateral US-Japan-Philippines summit in 2024 (c.f. section 3.1). This vast infrastructure project will link Subic Bay, Clark, Manila and Batangas via improved rail and road networks, with port reinforcement (modernization of Subic's quays) and energy extensions (renewable energies)[332]. These investments facilitate the transport of ore to processing plants and international markets.

2.3 Raising awareness in educational circles

The authorities insist on training engineers and technicians specialized in extractive metallurgy and the environment. The DOST explicitly mentions "capacity building in human resources, technical experts and skilled workers" as a priority, although no concrete measures in this direction have been published[333].

3. International policy

Historically aligned with the United States, the Philippines is strengthening its international partnerships in the face of growing tensions with China in the South China Sea. To limit their economic dependence on Beijing and avoid granting it strategic leverage, they are favoring cooperation with Washington's allies, while maintaining essential trade links with China. In the nickel sector, this translates into a policy of balance: attracting investment from countries close to the USA, while continuing to export massively to the Chinese market.

[331] Chamber of Mines Pushes for Policy Reforms; Philippine Resources; 01 Novembre 2024
[332] US plans chips, nickel deals in Philippines as defense ties grow; Mining.com; 12 Avril 2024
[333] Building capacity for metallic mineral processing in the Philippines; Philippines Council for Industry, Energy and Emerging Technologies Research and Development; n.d.

3.1 United States of America

3.1.1 Technical Assistance

As part of its containment strategy vis-à-vis China, the United States has particularly strengthened its cooperation with the Philippines under the Biden administration. Following a visit by Philippine President Marcos Jr in 2023, a Memorandum of Understanding (MoU) was signed in Baguio formalizing a 280 million peso ($5 million) technical assistance program funded by USAID. Led by the University of the Philippines Public Administration Foundation (UPPAF), in partnership with five Philippine government agencies (including the Department of Environment and Natural Resources, ARTA, and the Departments of Finance, the Interior and Trade), this program aims to structure a Philippine nickel processing industry, a strategic resource for green technologies[334]. The MoU is part of the U.S. drive to make the Philippines a key link in global value chains outside China's influence. The Chamber of Mines of the Philippines and the Philippine Nickel Industry Association also signed the MoU, supporting the role of the private sector in this strategy. USAID funding, however, was suspended by the Trump administration in 2025.

In parallel, the U.S. Trade and Development Agency (USTDA) awarded a 56 million peso ($1 million) grant to Eramen Minerals Inc. for a feasibility study of a nickel processing plant in Zambales, with results expected in May 2024[335].

3.1.2 International Visitor Leadership Program

On April 21, 2024, a joint vision statement was signed by the USA, Japan and the Philippines at the end of a tripartite summit, in which the strategic importance of securing an electric battery production chain independent of China was reiterated[336]. This statement mentions the crucial role played by the International Visitor Leadership Program (IVLP) in this strategy. The IVPL is a professional exchange program sponsored by the U.S. Department of State, which welcomes foreign leaders rigorously selected by U.S. embassies for short visits to the U.S. to foster mutual understanding and the development of interpersonal ties through meetings with American counterparts, participation in cultural activities and field visits[337]. The participation of Filipino players in this program contributes to the formation of interpersonal links with American counterparts, which in turn leads to economic ties between these two economies.

3.1.3 Inflation Reduction Act

[334] US, PH stakeholders sign MOU on minerals sector technical aid; Manilla Bulletin; 18 Novembre 2023
[335] Partnership Launched to Implement U.S.-funded Php280 Million Program for Philippine Critical Minerals Sector; Ambassade des Etats-Unis aux Philippines; 17 Novembre 2023
[336] Joint Vision Statement from the Leaders of Japan, the Philippines, and the United States; 21 Avril 2024
[337] Site officiel de International Visitor Leadership Program (IVLP)

The Inflation Reduction Act (IRA), implemented in the USA in 2022, has placed the supply of critical minerals outside China at the heart of Washington's energy policy. The Philippine authorities have emphasized their role as a potential supplier of nickel eligible for export incentives to the USA, and have encouraged partnerships with Japanese companies benefiting from IRA incentives.

3.1.4. Sectoral free trade agreement

Since 2025, the Philippines and the United States have been considering a sectoral free trade agreement between the two countries. Among the sectors that could benefit from free trade is the critical minerals sector[338].

3.1.5 Indo-Pacific Economic Framework (IPEF)

In May 2022, the Philippines joined the Indo-Pacific Economic Framework (IPEF), an initiative spearheaded by the USA, Japan, Australia, Korea and several ASEAN countries (including the Philippines). The IPEF includes a "supply chain" pillar dedicated to critical raw materials[339]. This open multilateral platform aims to finance infrastructure, promote R&D and coordinate ESG standards in the extractive sector. Although no concrete projects have yet been announced for Philippine nickel, the IPEF could serve as a framework for technological and financial cooperation for the development of the mining industry.

3.1.6 Strategic Minerals Partnership

In September 2024, the Philippines officially joined the Minerals Security Partnership Forum, a group of states (including the USA, EU, Australia, Japan...) aiming to secure the supply chains of critical minerals[340]. As an MSP member, the Philippines goes beyond the role of mere beneficiary, and now participates in governance structures (forums, working committees) and helps define the partnership's project and policy roadmaps. However, no direct endowment or explicit funding is allocated to the Philippines in official MSP documents.

3.2 China

The Philippines has not signed a specific mining cooperation agreement with China, but both countries are signatories to the Regional Comprehensive Economic Partnership (RCEP). The RCEP is a multilateral free trade agreement that came into force in 2022 between the ASEAN countries (including the Philippines), China, Japan, South Korea, Australia and New Zealand. Philippine nickel products sold

[338] PH eyes 'sectoral FTA' with US under Trump; Business Inquirer; 12 Février 2025
[339] Quad-ASEAN Technology Cooperation for Critical Minerals Supply Chains; Center for Social and Economic Progress; 12 Janvier 2024
[340] EU and US welcome new members to Minerals Security Partnership; 27 Septembre 2024

in China are subject to customs duties of just 1.5% CIF[341].

No bilateral protocols focusing on nickel have been publicly formalized. However, Chinese firms are heavily involved in the Philippine sector. For example, in 2018, China's Fujian Hengrun Investment Co. signed a deal with Philippine partners (Westchinamin Corp. and Easternreach Mining Group, Inc.) to build a ferro-nickel plant in Zambales[342]. More recently, in April 2023, the Chinese group Zhejiang Huayou Cobalt announced that it was studying the creation of the third HPAL nickel processing plant in the Philippines, in joint venture with a local producer[343]. These investments are part of China's strategy to secure supplies of battery minerals.

3.3 Japan

Japan and the Philippines have signed a comprehensive regional economic partnership effective since 2023, which has eliminated tariffs between the two countries on metals and metal products[344]. Apart from this agreement, formal inter-state links between these two countries are rare.

However, Japanese actor Sumitomo Metal Mining is at the center of Philippine nickel mining operations, given its role as majority shareholder in Nickel Asia Corporation, as well as its nickel processing operations (see section 1.1.2.2).

3.4 South Korea

A Memorandum of Understanding was signed between South Korea and the Philippines in 2024, with the aim of securing supply chains. More specifically, it was the Korean Ministry of Trade, Industry and Energy (MOTIE) who signed with the Philippine Department of Trade and Industry (DTI), the Department of Environment and Natural Resources (DENR) and the Department of Energy (DOE), on the sidelines of Korean President Yoon Suk Yeol's state visit to the Philippines for a bilateral summit[345]. This MoU reinforces the free trade agreement that came into force between the two countries in 2024[346].

[341] China and Philippines to implement RCEP tariff concessions from Jun. 2; Asian Metals; 17 Mai 2023
[342] De Lima alarmed over Chinese-funded mining project in Zambales; Senate of the Philippines; 18 Septembre 2018
[343] China's Huayou seeks to build nickel ore processing plant in Philippines; Reuters; 19 Avril 2023
[344] Philippines wants to leverage on its critical minerals; Argus Media; 5 Mai 2023
[345] Korea and Philippines agree to stronger supply chain and nuclear energy cooperation; Korea.net; 7 Octobre 2024
[346] PH-South Korea sign MOU on trade, energy cooperation; Manila Standard; 15 Mai 2025

4. Conclusion

The Philippine nickel industry is currently at a crossroads. Boasting significant geological potential and a dominant position in regional supply, it remains largely confined to the role of raw ore supplier, capturing a limited share of the value created downstream. The country's heavy dependence on China - both in terms of volume and outlets - exposes it to geopolitical, commercial and technological risks that it is becoming strategic to anticipate.

The reforms undertaken by the Philippine authorities, such as changes to the regulatory framework, the revision of the Mining Act and the introduction of tax incentives for local processing, are moving the industry upmarket. However, their success will depend on a number of structuring conditions: clarity and stability of the legal framework, quality of infrastructure, transparency in resource governance, and the ability to attract credible industrial investors, particularly in the battery materials sector.

Against this backdrop, the Philippines is seeking to redefine its place in global nickel value chains, by fitting in with the emerging logics of relocation, secure supplies and energy transition.

Appendix IV - Australia

Australia's nickel industry

Introduction

Australia occupies a strategic position in the world nickel panorama, both for its abundant resources and for its growing role in energy transition technologies. Faced with competition from major producers such as Indonesia, which recently brought most of the industry's mining operations to a halt, Canberra has drawn up a national strategy aimed at boosting competitiveness, diversifying outlets and ensuring sustainable operations.

This note presents the main strengths and challenges of the Australian nickel industry, and details its development prospects, as well as public support measures and international partnerships.

"The nickel industry is strategically vital to support Australia's sovereignty, economic resilience and resource security."

Western Australian Chamber of Minerals and Energy, 2024[347]

[347] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Energie d'Australie-Occidentale; Février 2024

Table of Contents

Abbreviations

A$: Australian Dollar

ABLIS : Australian Business Licence and Information Service

AHK : Australian-German Chamber of Commerce and Industry

ANSTO : Australian Nuclear Science and Technology Organisation

ASX : Australian Securities Exchange

BHP : Broken Hill Proprietary

CBAM : Carbon Border Adjustment Mechanism

CMF : Critical Minerals Facility

CSIRO : Commonwealth Scientific and Industrial Research Organisation

DFI : Development Finance Institution

EFA : Export Finance Australia

ESG : Environmental, Social and Governance

EU : European Union

EXIM : Export-Import Bank of the United States

HPAL : High Pressure Acid Leach

IEA : International Energy Agency

IRA : Inflation Reduction Act

JORC : Joint Ore Reserves Committee

kpta : Kilotonnes per annum

MoU : Memorandum of Understanding

MPFA : Major Projects Facilitation Agency

MSP : Minerals Security Partnership

RE : Rare Earths

R&D : Research and Development

ROSI : Roads of Strategic Importance

tpa : Tonnes per annum

TSX : Toronto Stock Exchange

1. A promising industry beset by difficulties

1.1. Overview of the current situation

Australia is the world's largest holder of economically recoverable nickel reserves (21.2 Mt in 2019, i.e. 18% of world resources) and ranks 5th worldwide in terms of production (158,000 t in 2023, 5% of world production)[348]. However, falling prices in 2023-2024 have led to the virtual cessation of mining activity, as its break-even point of US$ 17,000 per tonne is higher than the current nickel price.

The main outlet for Australian nickel is stainless steel production, generally carried out in China[349]. The sector is part of a broader strategy for critical minerals, which has included nickel on the list of 31 priority minerals since February 2024[350] [351], with the aim of increasing strategic autonomy, particularly in the face of China. Australia is currently restructuring its production methods, outlets and international approach, and is implementing public policies to this end.

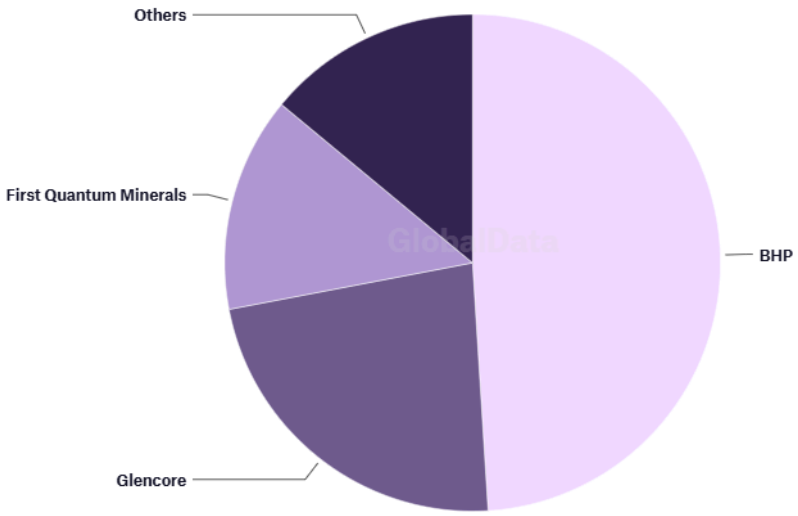
Western Australia accounts for 90% of Australia's nickel production. West Australia Nickel (BHP) alone accounts for 108,000 t (Leinster and Mount Keith), while IGO, First Quantum Materials and Minara Resources (Glencore) share the rest.

Table 1: Australia's main mines (2022-2023)

Mine / Project	Operator	Production 2023 (t)	Production 2024 (t)
Leinster et Mount Keith	West Australia Nickel (BHP)	108 700	108 400 Shutdown in December
Nova & Forrestania	IGO	34 800	Nova: 20,806 Forrestania: resource exhaustion
Ravensthorpe	First Quantum Materials	22 000	Shutdown in May
Murrin Murrin	Minara Resources (Glencore)	31 100	Shutdown
Avebury (Tasmania)	Avebury Nickel Project	null	Shutdown

[348] Nickel; Geoscience Australia; 19 Décembre 2023
[349] Production of Nickel in Australia, 2021 - 2029 (thousand tonnes); Global Data; 2025
[350] Nickel placed on critical minerals list; Department of Industry Sciences and Resources; 16 Février 2024
[351] Nickel joins critical minerals list; Australian Mining; 19 Février 2024

Diagram 1: Breakdown of nickel production in Australia in 2022 according to private companies[352]



1.2 A sector in crisis

1.2.1. Fall in prices and cessation of activities

Production dropped by 7% in 2024 (146,960 t)[353], generating losses for operators. With the exception of the Nova mine (IGO), all the main nickel mines have announced that they will go into temporary maintenance in 2024. A case in point is Australia's largest nickel producer, West Australia Nickel (BHP). BHP will continue to invest A$ 450M per year to maintain this site, in order to facilitate an eventual restart which could take place in 2027[354].

The Australian government is taking this crisis seriously, given the importance of this industry both to the Australian economy and to its strategy of autonomy and sovereignty.

"The disappearance of the Australian nickel industry would have a direct impact of $1.8 billion on annual economic activity. It would also impact the nickel industry supply chain, reducing demand for intermediate goods and services used in nickel mining and processing, as well as other vital sectors, such as construction and manufacturing, which rely on nickel as an essential input."

Western Australian Chamber of Minerals and Energy, 2024[355]

[352] Nickel Mining Market Analysis by Reserves, Production, Assets, Demand Drivers and Forecast to 2030; Global Data; 16 Décembre 2024
[353] Production of Nickel in Australia, 2021 - 2029 (thousand tonnes); Global data; 2025
[354] Western Australia Nickel to temporarily suspend operations; BHP; 11 Juillet 2024
[355] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024

1.2.2. Structural issues

In addition to the difficulties caused by the current nickel price situation, Australia is also facing structural challenges that require a rethink of the way the industry operates. For example, West Australia Nickel, which had redirected its production from stainless steel to nickel sulfates (for use in electric batteries), has been posting steady losses since 2020[356].

What's more, the productivity of Australian companies is falling, while emerging Indonesia is experiencing very low operating costs. Indeed, production costs for nickel sulphate production in Australia have risen by almost 50% between 2019 and 2024. The break-even point for nickel production is now US$ 17,000. Rising labor costs contribute to this: wage costs have risen by 21% since 2014, and the share of labor costs in total production has risen from 35% to almost 40% over the same period[357]. This increase can also be attributed to the cost of ESG regulations.

1.3. An ambitious outlook

1.3.1. Anticipated growth

Despite the downturn in the industry, the outlook remains positive. The Australian government believes that the adjustments the industry is making and the expected rise in nickel prices will lead to increased production over the long term. Projections indicate that nickel production will reach 230,000 tonnes by 2028-29, and refined nickel production will reach 113,000 tonnes over the same period. This positive outlook is attributed in particular to the resumption of existing projects once prices have risen, the start-up of new mining projects, and the development of local processing into intermediate products (such as mixed hydroxide precipitate) and nickel sulphate[358].

Indeed, seven major nickel projects are currently under development, some of which have already secured the necessary investment and will begin operations shortly. Most of these projects are aimed at producing nickel for the construction of electric batteries, illustrating the government's desire to reorient the outlets for its nickel industry.

[356] Western Australia Nickel to temporarily suspend operations; BHP, 11 Juillet 2024
[357] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024
[358] Resources and Energy Quarterly; Department of Industry, Science and Resources; Mars 2024

Table 2: Major projects under development

Project	**Outlet**	**Nominal production**	**Investissors**	**Status**	**Capital cost**
Broken Hill Cobalt Project & Kwinana Cobalt Refinery	Batteries	Cobalt sulfates and refined nickel	Cobalt Blue Holdings Ltd., Iwatani Australia	On pause due to lower cobalt prices.	A$ 620M
NiWest	Batteries	Nickel sulfates, 87,8 ktpa Cobalt sulfates, 7,2 ktpa	Alliance Nickel Ltd., Stellantis, Samsung SDI	Final feasibility study completed.	A$ 1,65Md
Sunrise Battery Materials Complex	Batteries	Nickel sulfates, 96 ktpa Cobalt sulfates, 21 ktpa Scandium oxydes, up to180 tpa	Sunrise Energy Metals Ltd.	Final feasibility study underway. All permits obtained.	US$ 1,83Md
Kalgoorlie Nickel Project - Goongarrie Hub	Batteries	MHP, 145 ktpa	Ardea Resources Ltd., Sumitomo Metal Mining, Mitsubishi Corporation	Definitive feasibility study underway	A$ 3,11 Md
Burra Scandium Project	Not specified	Scandium oxyde, 40 tpa sur 30 ans	Rio Tinto Ltd .	Feasibility study in progress	Under evaluation
Wegellina	Batteries	MHP, 120 ktpa	Nico Resources Ltd.	Preliminary feasibility study completed in 2022.	A$ 2,9 Md
Kambalda Gold &Nickel Project	Not specified	Nickel concentrate (14,6%)	Lunnon Metals Ltd .	Preliminary feasibility study underway	A$ 18,6M

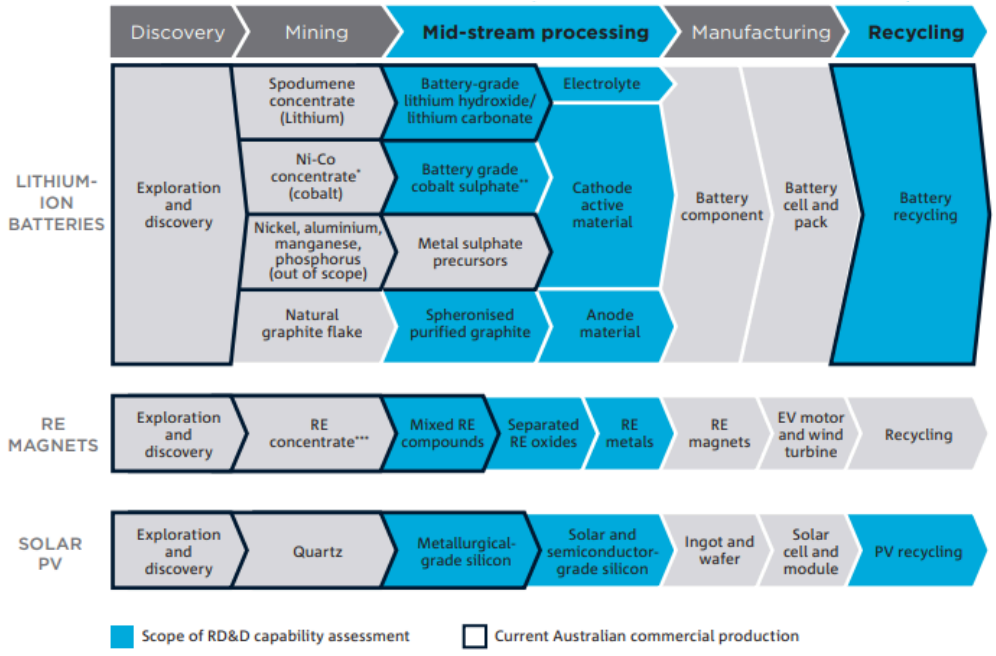
Find out more about each project in the Australian Critical Mineral Prospectus[359], or project websites. It should be noted that most of these projects are part of the electric battery production chain. The nickel industry in Australia thus seems to be reorienting itself towards this minor but growing outlet (see section 1.3.2).

1.3.2. A reorientation of outlets

Demand for nickel is expected to grow by 9% a year until 2030[360], mainly driven by the production of electric batteries and renewable energy technologies. Today, this market represents only 20% of nickel outlets, the rest being dedicated to stainless steel. As a result, Australia is adapting its industry not only to increase its production capacity, but also to become part of the production chain for electric batteries, RE magnets (used in wind turbines) and solar panels[361].

The diagram below is taken directly from a report by the Australian research and development center CSIRO[362]. It describes the production chain for each of these technologies. Processes that Australia is currently producing on a commercial scale are shown in bold, and processes on which Australia is carrying out research and development are shown in blue.

Figure 1: Value chains for certain uses of nickel, and Australia's position in them



[359] Australian Critical Mineral Prospectus; Australian Trade and Investment Commission; 2025
[360] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024
[361] From minerals to materials: Assessment of Australia's critical mineral mid-stream processing capabilities; CSIRO; Mai 2024
[362] From minerals to materials: Assessment of Australia's critical mineral mid-stream processing capabilities; CSIRO; Mai 2024

1.3.3. Integrating ESG criteria

At the heart of Australia's critical minerals strategy is a commitment to the development of environmental, social and governance (ESG) criteria. Indeed, Australia's ambition is to become a "renewable energy superpower"[363], and aims to achieve this goal by meeting strict ESG criteria. To date, Australian nickel emits six times less greenhouse gas emissions than Indonesian and Chinese nickel[364], and some mining projects will use 100% renewable energy, such as the Sunrise Battery Materials Complex, which will produce nickel electric batteries[365].

- **Environmental and social stakes**

Proposed reforms to the JORC Code will make it mandatory to publish ESG reports at every project phase, ensuring full transparency on environmental and social performance[366]. In addition, traceability and provenance initiatives, led by expert groups, aim to guarantee ethical supply chains and limit the impact on biodiversity through rigorous life-cycle analyses[367].

- **Economic stakes**

The adoption of strict environmental, social and governance (ESG) criteria enables countries able to produce competitively despite the additional costs induced by these standards to protect their strategic industries. This is due to the nature of the end markets concerned: consumers of electric batteries, wind turbines or solar panels often prefer products designed responsibly, with a view to environmental consistency[368]. To meet this demand, it is crucial that the manufacturing processes for these technologies are aligned with high standards. With this in mind, the European Union plans to impose a carbon tax of USD 4,165 per tonne on nickel from China and Indonesia from 2026, as part of its Carbon Border Adjustment Mechanism (CBAM)[369]. Brussels is also planning to release subsidies to companies deemed "greener", including non-European companies.

This policy, actively supported by Brussels, Canberra and Washington under the Biden administration, has a dual objective. Environmentally, it aims to ensure that the energy transition is carried out in a sustainable manner. Economically and strategically, it aims to curb the integration of competing Chinese and Indonesian production into value chains destined for the European market, due to their inability to comply with ESG criteria. Conversely, it favors producers (notably European and Australian) who are already competitive within this normative framework. In short, Western countries are taking

[363] Budget boosts Australia's transformation to a renewables superpower; Chancellerie d'Australie; 9 Mai 2023
[364] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024
[365] Sunrise Battery Materials Project; Sunrise Energy Metals: n.d.
[366] ESG at Every Stage: The Implications of the Proposed JORC ESG Reforms for the Australian Mining Sector, ISS Insights, 29 Novembre 2024
[367] A Vision And Roadmap To Support Critical Minerals Provenance And Traceability; Frontiers SI; Décembre 2024
[368] Nickel Downstreaming in Indonesia: Reinventing Sustainable Industrial Policy and Developmental State in Building the EV Industry in ASEAN; Journal of ASEAN Studies; Juillet 2024
[369] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024

advantage of their monopsony position in certain segments of the energy transition to impose advantageous production conditions on their own industries. For example, Australia, together with Canada and the United States, founded the Energy Resource Governance Initiative (ERGI)[370]. This initiative is designed to promote good governance in the mining sector and secure the supply chains of energy minerals to these three countries. To this end, it trains professionals from partner countries (Botswana, Peru...) and raises their awareness of ESG management, which then leads to financial, technical and commercial links with the initiative's founding countries. New Caledonia took part in a training session of this program in June 2024[371].

However, this strategy now has its limits. China has successfully challenged the Western monopsony by building up a vast domestic market for electric vehicles, supported by substantial public subsidies, which reduces the vulnerability of its industries to the standards imposed by the EU and weakens the knock-on effect of European standards. What's more, the United States' disengagement from certain international institutions that promote these standards weakens the global regulatory system that Europe is seeking to structure, and could therefore reduce the overall effectiveness of this strategic approach.

- **Political stakes**

Australia's goals of achieving production capacity for electric batteries, wind turbines and solar panels give it decisive strategic autonomy, greatly reducing its dependence on imported hydrocarbons, the supply of which it does not directly control.

2. Public policies to support the sector are rather timid

Despite nickel's strategic importance, direct financial support remains limited, favoring indirect, fiscal and administrative aids that benefit the mining sector as a whole rather than the nickel industry alone. This cautious public policy of direct subsidies for nickel-related projects, despite recognition of the industry's importance, can be interpreted optimistically. Indeed, it could indicate that the government has confidence in the ability of private actors to resume production on their own, without artificial financial infusions. The strategy of both the private and public sectors seems to be to wait for prices to rise before resuming production in earnest in a few years' time.

2.1. Financial support

The Australian government's direct financial support for critical minerals projects takes the form of various specialized public mechanisms.

[370] Energy Resource Governance Initiative (ERGI); Bureau of Energy Resources; n.d.
[371] Encourager le développement de nouvelles approches dans le secteur minier; Gouvernement de Nouvelle-Calédonie; 7 Juillet 2023

The most important mechanism is the *Critical Mechanism Facility*[372]. Launched in 2021 by the federal government with an initial envelope of A$2bn, now increased to A$4bn, the CMF is administered by Export Finance Australia (EFA), the federal government's official export credit agency, under the Department of Industry, Science and Resources. This initiative is aligned with the objectives of the Critical Minerals Strategy 2023-2030 and the challenges of energy transition and reducing strategic dependency. Financing can take the form of loans, loan guarantees, bonds and working capital support, and is designed to complement commercial financing[373]. This agency cooperates with the U.S. agency U.S. EXIM, through joint feedback on their projects, advice on the next steps for collaboration between the two agencies, and the development of joint solutions between Export Finance Australia and U.S. EXIM[374].

However, nickel mining projects have never been considered for support under this mechanism, despite their eligibility. Only BHL's Nickel West subsidies appear to be under consideration by the CMF[375], although no official announcement has been made. It seems that the CMF is focusing instead on non-nickel projects, such as the A$1.65bn non-recourse loan granted to Aneeaba Rare Earth Refinery, the site of Iluka Resources, which mines rare earths, titanium and zirconium[376], or the A$400M granted to Alpha HPA, which produces alumina[377].

Another mechanism is the Critical Minerals Accelerator Initiative[378], which is being funded by the Australian government to the tune of A$ 200M over 5 years, with the aim of supporting early and mid-stage projects to overcome technical and commercial barriers to growth. Cobalt Blue Holdings' Broken Hill Cobalt Project & Kwinana Cobalt Refinery reported receiving a direct public grant from them. The grant was A$15M and helped complete the feasibility study[379].

In addition, regions sometimes provide direct public support. The Kwinana industrial development area, for example, received A$75 million from the Western Australian government[380].

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[372] We're growing Australia's critical minerals sector; Export Finance Australia; n.d.
[373] Critical Minerals Facility; International Energy Agency; 26 Octobre 2023
[374] We're growing Australia's critical minerals sector; Export Finance Australia; n.d.
[375] Nickel to be placed on critical minerals list, giving WA miners access to $4 billion fund; ABC, 16 Février 2024
[376] Australia grants further $257m for Iluka's rare earths refinery amid cost blowout; Mining, 5 Décembre 2024
[377] $400m Australian Government Support to Establish Australia's First, Commercial Scale High Purity Alumina Products Facility; AlphaHPA, 17 avril 2024
[378] Critical Minerals Accelerator Initiative guidelines: have your say; Department of Industry, Science and Resources; 6 Avril 2022
[379] Broken Hill Cobalt Project Awarded $15m Critical Minerals Accelerator Initiative (CMAI) Grant; Cobalt Blue Holdings, 28 Avril 2022
[380] BHP, Rio Tinto, BlueScope, Woodside select Kwinana for milestone electric smelting furnace pilot plant; International Mining; 17 Décembre 2024

2.2. Infrastructure and research development

The involvement of public authorities seems to be directed more towards infrastructure improvements to open up the area and administrative facilitation. By way of example, several public investments by the State and local authorities can be cited:

- A$ 3,5B for ROSI Initiative (Roads of Strategic Importance)[381],
- A$ 1Md for the development of the Outback Way[382],
- the "Future Made in Australia" public policy launched in April 2024 by PM Anthony Albanese, which earmarks A$566M for Resourcing Australia's Prosperity initiative[383] which geo-maps mining resources,
- R&D Center *Australian Critical Minerals Research and Development Hub*[384] supports the discovery and application of innovative methods, while encouraging international cooperation[385]. This research center has a budget of A$ 50M, partly funded by the government, and is organized by the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in partnership with the Australian Nuclear Science and Technology Organisation (ANSTO) and Geoscience Australia (GA).

2.3. Administrative facilitation

From an administrative point of view, Australia has set up a number of administrative facilitation and visibility mechanisms for projects in critical minerals.

Austrade[386], the Australian Trade and Investment Commission, plays a central role in the administrative facilitation and international promotion of Australian nickel companies, particularly in the context of critical minerals. With public funding of A$ 6.7M[387], it actively supports companies in the sector by facilitating long-term offtake agreements, attracting inward investment in downstream processing projects and developing international business partnerships. This support takes the form of specialized services, tailored customer engagement programs and targeted trade missions, aimed at accelerating the development of Australia's critical minerals projects. In addition, Austrade publishes interactive tools, such as the "Australian Critical Minerals Prospectus", which highlights over 55 investment-ready projects, giving nickel companies greater visibility on the international stage.

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[381] Roads of Strategic Importance (ROSI): investment principles; Analysis and Policy Observatory; 13 Octobre 2018
[382] Outback Way; Department of Infrastructure, Transport, Regional Development, Communication and the Arts; n.d.
[383] Albanese government to invest $566 million for 'generational' mapping to promote resource exploration; The Conversation, 7 Mai 2024
[384] Australian Critical Minerals Research and Development Hub; Australian Critical Minerals Research and Development Hub; n.d.
[385] From minerals to materials: Assessment of Australia's critical mineral mid-stream processing capabilities; CSIRO; Mai 2024
[386] Australian Government support for critical minerals; Austrade; n.d.
[387] Critical Mineral Strategy 2023-2030; Gouvernement d'Australie; Juin 2023

The *Major Project* status[388] is Australia is another strategic lever put in place by the federal government to accelerate the realization of national-scale projects, particularly in the natural resources, energy and industrial transformation sectors. The Broken Hill Cobalt Project and NiWest, for example, benefit from this status. Issued by the Minister of Industry, Science and Resources, it provides access to a one-stop regulatory facilitation service through the Major Projects Facilitation Agency (MPFA), which assists project developers with complex administrative procedures, while coordinating the action of public agencies at federal, state and territorial levels. Eligibility for this status is based on clear criteria:

- Over A$ 50 millions of initial investments,
- Located in Australia or within its EEZ
- a clear economic or strategic importance,
- the presence of major regulatory challenges that could slow down its development.

Finally, the digitization policy of the Australian public service contributes to this administrative facilitation. For example, ABLIS[389] (Australian Business Licence and Information Service) offers a centralized online platform enabling mining companies to search for, acquire and manage the licenses and permits required across Australia's various jurisdictions. This centralization facilitates access to regulatory information and simplifies administrative procedures.

2.4. Fiscale aid

As far as taxation is concerned, Australia has recently eased tax obligations for nickel producers:

- Federal government adopted in February 2025 the *Future Made in Australia (Production Tax Credits and Other Measures) Bill 2024*[390], introducing a refundable tax credit[391] of 10% on expenditure related to the processing and refining of critical minerals, including nickel. The credit will apply from 2027 to 2040, for a maximum of 10 years per project, provided the processing facilities are registered in Australia.
- In February 2024, the government of the province of Western Australia announced a program to refund 50% of royalties to local producers when the average nickel price is below US$20,000 per tonne in a given quarter[392] [393].

[388] Recognition and support for complex major projects in Australia; Business Australia; n.d.
[389] Find the licences you need for your business; ABLIS (Business Australia); n.d.
[390] Future Made in Australia (Production Tax Credits and Other Measures Bill 2025, 2025
[391] Australia: Key developments include hydrogen and critical minerals production tax incentives; International Tax Review, 18 Février 2025
[392] Australia plans tax relief to shield miners from nickel price slump; Fastmarkets, 26 Février 2024
[393] Guidelines for nickel royalty relief now available; Gouvernement d'Australie Occidentale, 29 Février 2024

3. International strategy

International cooperation is an integral dimension of Australia's critical minerals strategy. The official Critical Mineral Strategy 2023-2030 document includes a dedicated section on this subject[394].

"The Government is investing $57.1 million to secure strategic and commercial partnerships to develop new, diverse and resilient supply chains underpinned by critical minerals processed in Australia. Under this initiative, $40 million in grants is available to support: (1) co-investment between Australia and like-minded international partners, (2) critical minerals projects that can help develop end-to-end critical minerals supply chains between Australia and partner countries."

Critical Mineral Strategy 2023-2030

Australia believes that collaborating with like-minded partners can help establish international ESG standards, thereby strengthening its position. In addition, close collaborations with certain partners in the fields of research and development can help strengthen Australia's strategic autonomy. Finally, the assurance of good commercial relations can encourage private partnerships and thus drive foreign direct investment in its projects. Examples include Alliance Nickel's collaboration with Stellantis and Samsung SDI, and Ardea Resources' with Sumitomo Metal Mining and Mitsubishi Corporation. These alliances facilitate the financing and development of projects, and ensure reliable outlets.

However, Australia is also keen to assert its sovereignty over nickel processing on its soil. It has therefore earmarked A$ 2.2M for the development of a system for tracking foreign investment in its mining industries, in order to quickly identify investments that could undermine its sovereignty[395].

3.1. Collaboration with Canada

Australia and Canada are both major producers of critical minerals, notably nickel. They share many interests in developing the recognition of international ESG standards, in research and development, and in the creation of private partnerships.

3.1.1. A similar strategy…

A joint declaration published on March 5, 2024 by Canada and Australia sets out a non-legally binding understanding aimed at coordinating their policies and actions around critical minerals, including nickel,

[394] Critical Mineral Strategy 2023-2030; Gouvernement d'Australie; Juin 2023
[395] Critical Mineral Strategy 2023-2030; Gouvernement d'Australie; Juin 2023

essential to the energy transition and clean technologies[396]. The points of agreement between these two countries are:

- Diversification and resilience of supply chains: both countries are committed to diversifying sources, reducing the geographical concentration of supplies, and guaranteeing secure access to minerals essential for batteries and low-emission technologies.
- Promoting high ESG standards and transparency: they agree to integrate robust environmental, social and governance (ESG) criteria into supply chains, by guaranteeing traceability and transparency of supply chains[397]. The two countries are also committed to joint action in multilateral organizations, working together in the International Standards Organization (ISO), the International Energy Agency (IEA), the Conference on Critical Minerals and Materials and the Sustainable Critical Minerals Alliance.
- Cooperation on trade, investment and R&D: they wish to collaborate on certain investment and trade missions, and exchange views on their respective approaches to growth in this sector.
- Inclusion of indigenous peoples: they will share best practices to ensure economic participation and respect for the rights of indigenous communities in mining projects.

Follow-up is ensured by the Australian Critical Minerals Office and the Canadian Department of Natural Resources, with a bilateral working group to translate these commitments into concrete action, notably at international conferences (e.g. PDAC 2024). In addition, Canada and Australia cooperate within the framework of the US Minerals Security Partnership (see section 3.2 Cooperation with the USA).

3.1.2. …with limited results

In practice, the concrete manifestations of this international cooperation remain relatively timid, but steps are being taken in this direction.

In the public sector, for example, we can observe academic cooperation in this area, with the establishment of the Globalink Research Award[398]. This consists of an exchange system open to students from both countries, on the one hand to Canadian educational institutions for research internships (particularly in quantum research); on the other hand to the Australian National University for doctoral studies (particularly in the fields of sustainable development and technological innovation).

In the private sector, a number of initiatives point to increased cooperation between the two countries. With a view to increasing investment and collaboration opportunities, the Prospectors and Developers Association of Canada's 2025 Forum in Toronto featured a full-day presentation by the Australia Minerals

[396] Joint Statement by Canada and Australia on Cooperation on Critical Minerals, Mars 2024
[397] Déclaration de la Ministre pour les Resources de l'Australie, 2024
[398] Globalink Research Award; Australia National University; n.d.

consortium of public-sector actors[399], and that of 2024 held a round table with private actor Australia Strategic Minerals Ld.[400].

Several projects in both Canada and Australia have joint investments. Wyloo Metals (AU), a subsidiary of Tattarang, acquired a stake of around 38% in Canadian company Noront Resources (now Ring of Fire Metals) in 2022[401] [402]. In the same year, Australian rare earths miner Hastings (in which Tattarang has invested A$ 150M) acquired a 22% stake in Canadian magnet manufacturer Neo, thus realizing its downstream processing ambitions[403].

What's more, a growing share of Canadian nickel producers listed on the TSX (Canadian stock market index) have also joined the ASX (Australian stock market index) since 2018, facilitating cross-border investments[404].

3.2 Collaboration with the United States of America

The USA and Australia have put in place several levers of collaboration to benefit from reciprocal investment and a secure production chain. Having been granted 'national' critical minerals supplier status under the US Defense Production Act in 2023, Australia is perceived as a reliable supplier by the US, which lacks certain critical minerals in its soil. For its part, Australia benefits from US investment, although it is wary of intermediate production capacities competing with Australian capabilities.

"In May 2023, the Australian and U.S. governments committed to making climate, critical minerals and clean energy a central pillar of the Australia-U.S. Alliance through the Australia-U.S. Compact for Climate, Critical Minerals and Clean Energy Transformation. (...)
The Minister for Resources will work with industry leaders and counterparts in the United States to develop and expand reliable, responsible and secure global access to critical minerals. (...) The task force will also help industry create reliable end-to-end supply chains that meet the growing demand from U.S. manufacturers (including automakers), particularly under the Inflation Reduction Act."

Critical Mineral Strategy 2023-2030

Australian nickel has been made eligible for U.S. subsidies to manufacture batteries and electric vehicles in the U.S. under the Inflation Reduction Act (IRA) in 2022[405]. It is within this framework that Australia

[399] Accelerating mineral discovery and development in Australia: Investment opportunities; Prospectors and Developers Association of Canada; 2025
[400] Updates from PDAC 2024; Australian Strategic Materials Ltd.; 2024
[401] Post Noront takeover, Wyloo gets to work on Ring of Fire assets: Exclusive interview; The Northern Miner, 29 Juin 2022
[402] Meet the Forrest young gun who shot down BHP; Financial Review; 16 Septembre 2022
[403] Forrest pumps $150m into rare earths aspirant; Financial Review; 26 Août 2022
[404] Canadian miners flocking to the ASX; Mining.com; 6 Mars 2025
[405] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024

stands to benefit from two key measures for the development of its nickel industry with the USA: the Clean Vehicle Tax Credit and the Advanced Manufacturing Tax Credit. These measures encourage US stainless steel and electric battery producers to source essential minerals from partners with a free trade agreement, including Australia. In this way, the IRA is likely to increase demand for upstream nickel products from Australia. However, the IRA also jeopardizes Australia's downstream processing opportunities due to lower processing costs in the USA.

Cooperation between the USA and Canada also takes place within a broader framework, in cooperation with the USA's main allies. The Minerals Security Partnership (MSP)[406] is a U.S.-led international initiative to ensure a secure, diversified and sustainable supply of critical minerals needed for energy transition technologies, economic growth and U.S. national security. The MSP brings together 14 countries and the European Union: Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the United States and the European Union (represented by the European Commission).

Although the MSP remains discreet about the details of its actions, its involvement in certain projects has been reported. For example, in Zambia and the Democratic Republic of Congo, the MSP has initiated efforts to structure the Lobito corridor around the production, refining and, above all, the transportation of copper and cobalt[407]. Discussions have been opened in Namibia, concerning local lithium processing projects, and in the Philippines, concerning the development of HPAL (High Pressure Acid Leach) nickel processing projects, although the direct involvement of the MSP in the latter two negotiations has not been clearly established.

3.3 Collaboration with the European Union and the United Kingdom

Australia and the European Union are negotiating a free trade agreement. The signing of this agreement would contribute to a definite rapprochement between the two parties' industries. In the meantime, the interests of the European Union seem to be aligned with those of Australia.

3.3.1 A common strategy

On May 28, 2024, Australia and the European Union (EU) signed a Memorandum of Understanding (MoU)[408] establishing a strategic partnership on critical and strategic minerals. This agreement aims to strengthen bilateral cooperation to build sustainable, ethical and resilient supply chains,

[406] Minerals Security Partnership, United States Department of State; n.d.
[407] Developing Electric Vehicle Battery Supply Chains for Inclusive and Sustainable Growth: Opportunities and Challenges in Zambia and the Democratic Republic of the Congo from SAFE and the U.S. State Department's Battery Council Workshops; SAFE (Center for Critical Minerals Strategy); 2024
[408] Memorandum of understanding between the European Union and Australia on strategic partnership on a sustainable critical and strategic minerals; Department of Industry, Sciences and Resources; 28 Mai 2024

essential to the transition to net-zero economies by 2050. The partnership covers the entire critical minerals value chain, including exploration, extraction, processing, refining, recycling and extractive waste management. It also includes collaboration on environmental, social and governance (ESG) standards, research and innovation, and the development of joint projects in third countries where Australia and the EU have common interests.

As part of this partnership, the EU and Australia commit to developing a joint roadmap within six months of signing the MoU. This roadmap will detail concrete actions to implement the partnership, identifying projects of mutual interest, facilitating investment and strengthening economic and industrial integration in the critical minerals sector[409].

In parallel, the EU recently adopted the Critical Raw Materials Act, which creates new opportunities for Australian producers of critical minerals, by facilitating access to the European market and encouraging investment in projects that meet high sustainability standards.

Australia has also established privileged links with European Union member states on a bilateral basis. This is the case, for example, with Germany, with whom it has signed the Enhanced Strategic Partnership between Australia and the Federal Republic of Germany[410]. A similar partnership was established with France on September 28, 2023 with the signing of the Bilateral Dialogue on Critical Minerals[411]. In addition, a joint statement was made by France and Australia, indicating their desire to harmonize their ESG regulatory frameworks in order to facilitate investment and innovation[412].

3.3.2 Concrete joint advances

Concrete initiatives already illustrate this strengthened cooperation. For example, the European Union will tax Indonesian nickel by US$4.165 per tonne as part of its Carbon Border Adjustment Mechanisms (CBAMs), a decision welcomed by Canberra[413].

On a bilateral level, Australia and Germany have launched a joint study on critical mineral supply chains, aimed at identifying the specific needs of both countries in terms of clean technologies, and developing joint projects in the field of mineral extraction, refining and recycling[414]. In the private sector, a German business delegation organized by the Australia-Germany Chamber of Commerce & Industry (AHK)

[409] EU and Australia Sign Partnership on Sustainable Critical and Strategic Minerals Délégation de l'Union Européenne en Australie; 28 Mai 2024
[410] Enhanced Strategic Partnership between Australia and the Federal Republic of Germany; Department of Foreign Affairs and Trade; n.d.
[411] Australia and France sign bilateral agreement on critical minerals; Department of Industry, Sciences and Resources; 3 Octobre 2023
[412] Joint statement by France and Australia; Prime Minister of Australia; 1 Juillet 2022
[413] A Critical Juncture: Australia's Opportunities and Challenges in Nickel; Chambre des Minéraux et de l'Énergie d'Australie-Occidentale; Février 2024
[414] Australia and Germany collaborate on critical minerals study; Department of Industry, Sciences and Resources; 11 Avril 2023

visited Perth and Kalgoorlie in November 2024 to forge partnerships with local operators and assess on-the-ground investment opportunities in Australian nickel and lithium projects[415].

In addition, the Australian Department of Foreign Affairs and Trade's "Germany Country Brief" confirms that Germany is one of the leading European investors in the Australian mining sector, with a particular focus on processing and recycling technologies[416].

In addition, Australia and France have signed an agreement to cooperate on a study of supply chains for critical minerals, focusing on battery and magnet requirements for clean technologies, as well as medical and defense applications[417].

Conclusion

In conclusion, the Australian Nickel Strategy 2023-2030 illustrates Canberra's determination to exploit its exceptional deposit in order to strengthen its strategic autonomy, while responding to global climatic and economic challenges. In the face of the recent price crisis and structural challenges, the plan focuses on the development of new refining capacity, the expansion of low-carbon plants and the integration of strict ESG standards to make the industry more resilient and sustainable. International partnerships, from the U.S.-Australia Compact to bilateral agreements with the EU and Canada, set up cooperative frameworks to ensure ethical and secure supply chains. Finally, the use of tax incentives, infrastructure investment and R&D reflect a balanced approach, ready to support the recovery and make Australian nickel a major asset in the energy transition.

[415] Chambre de commerce de l'Allemagne en Australie; Novembre 2024
[416] Germany country brief; Department of Foreign Affairs and Trade; 2022
[417] Australia and France to cooperate on critical minerals study; Minister for Resources and for Northern Australia; 28 Septembre 2023

The nickel industry in Papua New Guinea

Introduction

In a regional context marked by competition for strategic resources, Papua New Guinea (PNG) is emerging as a key player in the Pacific nickel and cobalt sector. Endowed with significant mining potential that has yet to be fully exploited, PNG's development model is based on international partnerships, industrial expansion and the quest for greater local added value.

This note presents a detailed analysis of the Papua New Guinea nickel-cobalt industry, based on production data, stakeholder strategies, public and private partnerships, and the government's economic and diplomatic orientations.

Table of contents

Abbreviations

ADB – Asian Development Bank

AUD – Australian Dollar

CCD – Counter-Current Decantation

EIA – Environmental Impact Assessment

EMMP – Environmental Management and Monitoring Plan

EITI – Extractive Industries Transparency Initiative

FLNKS – Front de Libération Nationale Kanak et Socialiste (Kanak National and Socialist Liberation Front)

KMHL – Kumul Minerals Holdings Limited

MCC – Metallurgical Corporation of China

MHP – Mixed Hydroxide Precipitate

MRDC – Mineral Resources Development Company

MSP – Minerals Security Partnership

MRA – Mineral Resources Authority

NiCo – Nickel-Cobalt

PGK – Papua New Guinean Kina

PNG – Papua New Guinea

Ramu NiCo – Ramu Nickel Cobalt Joint Venture

SSG – Special Support Grant

TCS – Tax Credit Scheme

USD – United States Dollar

1. Situation of the nickel industry

1.1 Current situation

1.1.1. The production

PNG has only one active nickel mining site: the Ramu mine, located in Madang province[418]. It consists of the Kurumbukari mine (open-pit mine, deagglomeration plant, enrichment plant and ancillary facilities), linked by a 135km pipeline to the Basamuk refinery (sludge treatment, high-pressure acid leaching, CCD washing, neutralization, iron/aluminum removal and precipitation, as well as auxiliary components)[419]. The site extracts nickel and cobalt, which are exported in the form of mixed hydroxide precipitate (MHP), used in the manufacture of electric batteries.

In 2023, the mine produced 33,600 tonnes of nickel and 3,000 tonnes of cobalt, representing around 1% and 1.3% of world production respectively. This production exceeds the site's nominal capacity by several thousand tonnes.

Remaining resources are vast: the Ramu site currently has an estimated measured and indicated resource of 150 million tonnes, with average grades of 0.85% nickel and 0.1% cobalt[420].

1.1.2. Weight in the local economy

According to the Ministry of Mines, these mining products have generated an average of over PGK 10 billion a year over the past five years, peaking at PGK 15.7 billion in 2020. Export revenues from the mining sector account for around 45% of PNG's total export earnings[421].

Papua New Guinea's mining sector is dominated by gold (2.4 million ounces) and copper (84,500 tons).

1.1.3. Stakeholders

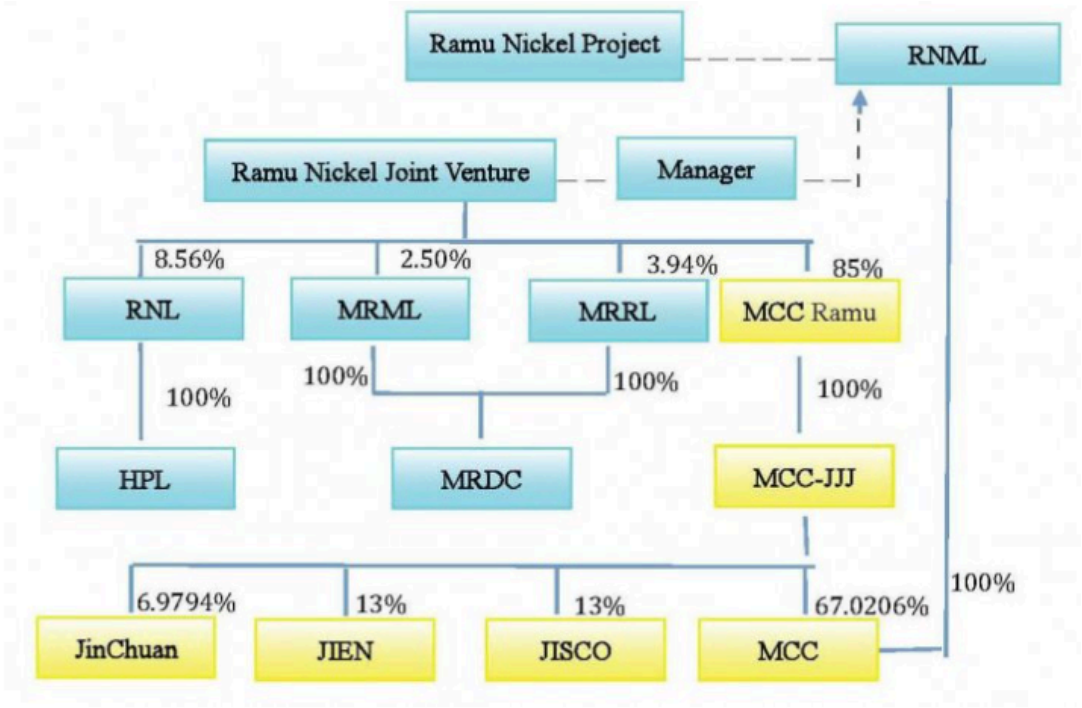
The Ramu project was initiated in 2004, with commercial production starting in 2012 under Chinese ownership. It is operated by Ramu NiCo Management Ltd, 100% owned by China's state-owned Metallurgical Corporation of China (MCC), but managed by the Ramu Nickel Joint Venture. The latter is 85% owned by MCC Ramu (itself owned by Chinese shareholders, including MCC), 8.56% by Nickel 28

[418] Ramu Nickel Cobalt Project, Mineral Resource Development Company; n.d.
[419] The Project; Ramu Nico Management (MCC) Limited; n.d.
[420] Expansion on cards for Papua New Guinea's only nickel-cobalt mine; Business advantage PNG; 2 Janvier2025
[421] Déclaration de presse: PNG's Mineral Potential; Bureau du Ministre des Mines; 2024

(owned by Highland Pacific Ltd., a private US company), and 6.44% by the state-owned Papua Mineral Resources Development Company (MRDC)[422].

The initial project was financed in 2008 by a USD 1.4 billion package (70% debt, 30% equity), including a USD 560 million loan from China Eximbank and a USD 473 million syndicated loan from the shareholders[423].

Diagram 1. Ramu project shareholders



Source: Official website of Ramu NiCo Management Ltd.

A feasibility study is currently underway between MCC and the state-owned Kumul Minerals Holdings, to evaluate an extension to the site, with a planned investment of USD 1 billion and new operating permits[424] [425].

Through the Papuan mining sector, the Asian Development Bank (ADB) has provided assistance through 271 loan, grant and technical support programs, representing a total of USD 4.7 billion[426]. This support has focused in particular on institutional capacity-building and infrastructure, although not exclusively in the nickel sector.

[422] The Project; Ramu Nico Management (MCC) Limited; n.d.
[423] Project 64520; AIDDATA; n.d.
[424] Ramu NiCo expansion plan to cost over US$1 billion; Post Courier; 5 Juillet 2024
[425] Operator of Ramu Nickel Mine to invest over K3.6 Billion; NBC; 12 Juillet 2024
[426] Papua New Guinea and ADB, Asian Development Bank; n.d.

1.2. Future prospects

1.2.1. Mining expansion

Annual nickel and cobalt production could double or even triple, reaching up to 90,000 tonnes of nickel and 9,000 tonnes of cobalt per year, if the Ramu expansion project is completed and the Mambare project (Oro Nickel) goes into production[427].

Niugini Nickel Pty Ltd, which became Corcel Plc after its takeover by UK-based Corcel in 2024, now holds 100% of the license for the Wo Wo Gap project, a small nickel-cobalt deposit in the Mambare district[428]. It is currently prospecting for the launch of the Oro Nickel mine.

1.2.2. Offshore expansion

PNG issued its first offshore mining license in January 2011 for the Solwara 1 project, scheduled for launch in 2014[429]. The project was destined to become the world's first commercial deepwater mining operation. However, in August 2023, the states of the Melanesian Spearhead Group (Fiji, PNG, Solomon Islands, Vanuatu, FLNKS) adopted the “Udaune” moratorium on subsea mining, putting the brakes on the project and calling for more environmental studies[430].

2. Public policy

2.1. Government action

In 2024, the Minister of Mines has identified three major priorities for the State, which do not include nickel projects: Porgera (gold), Wafi-Golpu (copper) and Frieda River (copper)[431]. This indicates that, given the dynamism of the sector, the success of the Ramu site and Chinese interest, the government prefers to focus its attention on other sectors.

Public policy is now moving towards increased local processing. As illustrated by the joint MCC-KMHL study, the state is currently drafting a Downstream Mineral Processing Policy aimed at creating a national value chain to capture more local added value[432].

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[427] Déclaration de presse: PNG’s Mineral Potential; Bureau du Ministre des Mines; 2024
[428] Corcel acquires PNG project through Niugini Nickel acquisition, ShareCast, 18 Octobre 2021
[429] “PNG has some of the world’s biggest gold, silver and nickel reserves”; Global; 2013
[430] Pacific alliance adopts moratorium on deep-sea mining, halting resurgent PNG project; Mongabay; 6 September 2023
[431] Déclaration de presse: PNG’s Mineral Potential; Bureau du Ministre des Mines; 2024
[432] Déclaration de presse: PNG’s Mineral Potential; Bureau du Ministre des Mines; 2024

Developers must prioritize local employment, support national companies, and implement training and economic development schemes[433]. Instruments such as the Special Support Fund (SSG) and the Tax Credit Scheme (TCS) encourage investment in infrastructure and community projects[434].

2.2 Regulatory framework

The Mineral Resources Authority is preparing several legislative changes: revision of the Mining Act, mining safety, production sharing, creation of a Gold Bullion Bank, and strengthening local processing[435]. The Mineral Data Repository Hub enables real-time monitoring of extraction and export data, ensuring greater transparency[436].

2.3. Fiscal jurisdiction

PNG applies a 2% mining royalty on net revenues from mineral sales[437]. At least 20% of these revenues are paid back to local communities via provincial authorities and landowners. The State can also acquire up to a 30% stake in a mining project, thus guaranteeing direct involvement.

2.4. Environmental protection measures

The Mining Act 1992 requires compliance with the Environment Act 2000 for all permit applications. The latter requires the completion of an Environmental Impact Assessment (EIA), which identifies risks to environmental uses[438].

The operating permit is conditional on the implementation of an environmental management plan (EMMP), which can be revised as new data becomes available. PNG is also a member of the Extractive Industries Transparency Initiative (EITI)[439].

[433] Alluvial Mining Policy; 2021
[434] The Papua New Guinea Mining Policy; 2011
[435] Déclaration de presse: PNG's Mineral Potential; Bureau du Ministre des Mines; 2024
[436] Data Monitoring Hub/Centre at MRA; Mineral Resources Authority; 25 Avril 2023
[437] The Papua New Guinea Mining Policy; 2011
[438] "PNG has some of the world's biggest gold, silver and nickel reserves"; Global; 2013
[439] Papua New Guinea; EITI; n.d.

3. International strategy

3.1 Collaboration with China

3.1.1. Strong economic ties

As previously mentioned, Papua New Guinea and China enjoy a very good relationship, particularly in the nickel sector, where China has already made massive investments. And China is showing no signs of letting up: a memorandum of understanding has been signed between Ramu NiCo Management Limited (majority-owned by the Chinese state-owned company MCC) and Kumul Minerals Holdings Limited (a Papuan state-owned company), underlining the deepening of Sino-Papuan economic relations[440]. This agreement follows on from Prime Minister James Marape's state visit to Beijing in October 2023, during which he sought President Xi Jinping's support for PNG's industrialization and modernization ambitions.

Cooperation between China and Papua promises to deepen, with both countries currently working on a free trade agreement[441]. Prime Minister Marape inaugurated the PNG-Asia Investment Conference in Hong Kong in 2023, and confirmed his government's interest in strengthening Chinese investment in the resources sector, particularly strategic minerals such as nickel[442].

3.1.2. Closer ties that go beyond economic collaboration

PNG has also begun preliminary discussions with Beijing on a security partnership[443], potentially including police and defense components, although the country continues to regard Australia and the United States as its main security partner.

3.2. Collaboration with Australia

Australian support is mainly in the form of infrastructure and governance support. Recent Australian initiatives include :

- 2 million A$ were mobilized in June 2024 to restore access to the Porgera mine, following a landslide[444].

[440] Prime Minister Hon. James Marape Welcomes Milestone Agreement Between Chinese Company Ramu Nico Management Ltd and Kumul Minerals Holdings Ltd; Bureau du Premier Ministre et du Conseil Executif National; 20 Janvier 2024

[441] Minister Maru Commits to Delivering the PNG-China Free Trade Agreement Joint Feasibility Study Report, PNG Business News, 20 Octobre 2024

[442] China's message problem in PNG; Lowy Institute; 7 Fevrier 2024

[443] China, Papua New Guinea in talks on policing, security cooperation - minister; Reuters; 29 Janvier 2024

[444] Australia to fund road clearing to Porgera mine after PNG landslide, Mining.com, 20 Juin 2024

- Through the Australian Infrastructure Financing Facility for the Pacific, Canberra is financing the modernization of the port of Kimbe and other logistics facilities, as part of an AUD 621.4 million program to strengthen the resilience of PNG's ports[445].

With little presence in the nickel sector, Australia has a much more active involvement in the gold and copper sector in PNG.

3.3 Collaboration with multilateral bodies - dominated by the United States

3.3.1. Minerals Security Partnership (MSP)

PNG's Minister of Mines recently expressed his desire to see the country join the Minerals Security Partnership Forum, which brings together countries committed to the responsible sourcing of critical minerals. This forum provides a platform for strategic collaboration on the implementation of sustainable mining practices. PNG's membership of the Forum is actively supported by the European Union Delegation and the US Embassy in Port Moresby[446].

3.3.2. World Bank

In the past, the World Bank has played a decisive role in modernizing the mining sector's institutional framework through the Mining Sector Institutional Strengthening Technical Assistance Project (2007-2012)[447]. This project has strengthened mining legislation, consolidated the government's regulatory capabilities, and enabled a more structured dialogue with local communities, particularly around the allocation of royalties.

Conclusion

Papua New Guinea's nickel-cobalt industry embodies a hybrid model of state capitalism, foreign participation and the search for local roots. China's strong involvement in the financing, construction and operation of the Ramu site, combined with attempts to diversify economic partners (Australia, European Union, World Bank, etc.), places PNG at the crossroads between mineral sovereignty and strategic interdependence.

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[445] Australia backs major upgrade to Papua New Guinea's Kimbe Port, Australian Infrastructure Financing Facility for the Pacific, 7 Février 2025

[446] Papua New Guinea attends Launch of the Multilateral Minerals Security Partnership Forum, Délégation de l'Union Européenne en PNG, 9 Avril 2024

[447] Papua New Guinea: Mining Sector Institutional Strengthening Technical Assistance Project, World Bank Group, 17 Avril 2012

The Papuan government is clearly determined to add value to its resources through local processing, infrastructure development and community inclusion. This strategy, still unfinished, offers New Caledonia an opportunity for enhanced political and technical dialogue on subjects of common interest: mining governance, energy transition, local development and regional cooperation. New Caledonia is the only PIF country to share these issues so closely.