

Research Memo: Nickel Ore Supply Chain in the Philippines

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Key Findings

- China is the primary destination for nickel ore exported from the Philippines, receiving 92% of all 3,473 of recorded shipments between 2020-24. A total of 65 exporting companies (exporters) and 110 consignee companies (importers) were identified in the dataset, with 27 shipments lacking consignee data.
- C.T.P. Construction and Mining Corp. is the largest Philippine exporter by weight (24.76 billion kg), followed by Platinum Group Metals Corp. (20.39 billion kg) and Taganito Mining Corp. (18.87 billion kg). Top exporters by value differ slightly, with Carrascal Nickel Corp. leading with 816.8 million USD despite not appearing in the Top 10 by volume.
- When excluding shipments to China, three Philippine companies — Taganito Mining Corp., Hallmark Mining, and Citinickel Mines — emerge as the top exporters by both value and weight.
- Seven companies consistently rank among the Top 10 exporters by both value and weight, regardless of whether China is included: Taganito Mining Corp., Carrascal Nickel Corp., Rio Tuba Nickel Mining Corp., Zambales Diversified Metals Corp., Eramen Minerals Inc., Cagdianao Mining Corp., and C.T.P. Construction and Mining Corp.
- Companies signaled for particular emphasis (by CRI) include several of the Philippines' largest exporters — C.T.P., Platinum Group Metals, San Roque Metals (SRMI), Marcventures, and others — with shipments ranging from hundreds of millions to over 10 billion kg.
- Across these entities, recurring corporate behaviors emerge:
 - Interlocking directorates with the same individuals occupying leadership roles in multiple companies.
 - Strategic use of Filipino ownership to satisfy the 60/40 foreign equity rule, often with Chinese minority partners (e.g. OVMPC, OSMC, and Westernshore Nickel).
 - Layered corporate structures, where mining rights are held by one firm, operated by another, and traded by a third, which obscures direct accountability.
 - Backdoor listings and share-swaps (e.g. ECMRC and VIMC) used to consolidate control over publicly listed entities while keeping the core assets in family hands.
- The Philippines' nickel industry is marked by concentrated family ownership, foreign partnerships (primarily with Chinese investors), and layered intermediary structures in trade and processing. Among the 13 companies identified by CRI as priorities, eight share documented ownership or governance ties to three individuals and politically influential figures:
 - Hilario G. Pagautan controls East Coast Mineral Resources Co., Inc. (ECMRC) (95.21% ownership) and Norweah Metals & Minerals Company, Inc. (99.96%), and holds senior positions in Libjo Mining Corporation (managing director) and Oriental Vision Mining Philippines Corp. (via partnership with Norweah).
 - Antonio L. Co is the beneficial owner and president of Kafugan Mining Inc., and holds ownership or executive roles in Carrascal Nickel Corporation (shareholder), Westernshore Nickel Corporation (president), and Zambales Diversified Metals Corp. (linked by co-ownership and company records).
 - Ferdinand S. Borja (also referred to as Francisco Borja in some filings) serves as president and shareholder of Oriental Vision Mining Philippines Corp., president of Adnama Mining Resources, Inc., and plays a continuing role in the operations of

Oriental Synergy Mining Corp., whose Mineral Production Sharing Agreement (MPSA) he took over in 2011.

- Ningbo Lygend Wisdom Co. Ltd. is the top consignee by weight, receiving 13.29 billion kg across 243 shipments, followed by RSD Mining Co. Ltd. (9.02 billion kg) and Win Ascend Ltd. (4.07 billion kg).
- The supply chain analysis identified three main paths for nickel ore:
 1. Export to China-based refiners and traders (e.g. Ningbo Lygend, Tsingshan)
 2. Re-export of nickel sulfate or ferronickel to India and Brazil
 3. Final use in EV batteries or stainless steel by manufacturers such as Octillion Power Systems and Jindal Stainless Ltd in India.
- Tsingshan Holding Group appears central to downstream nickel flows from Philippine mines, with 3,000 follow-on shipments to clients across Indonesia, suggesting a tight China-Indonesia industrial link.

1. Introduction and Methodology

- This research memo was prepared by Empower at the request of Climate Rights International (CRI) in order to analyze the international supply chain of nickel ore originating from the Philippines, with a specific focus on exports from the Dinagat Islands and Surigao del Sur. The objective is to trace shipments of nickel ore (HS Code 2604), identify key exporters and their corporate networks, and assess where and how Philippine nickel enters global supply chains, particularly those linked to battery production and electric vehicle (EV) manufacturing. This research is part of CRI's broader investigation into the human rights and environmental risks embedded in mineral supply chains from sensitive mining areas.
- Empower began by extracting customs records from Panjiva (S&P Global) for all shipments of nickel ore (HS Code 2604) exported from the Philippines between April 2020 and late 2024. The resulting dataset included 3,473 shipments to eight countries, 65 distinct shippers (exporters), and 110 consignees (importers). Company names were cleaned and standardized to consolidate duplicate or misspelled entries.
- We produced two sets of rankings for the Top 10 exporters based on total shipment weight: one including China (which accounted for 92% of shipments) and another excluding China to better understand trade flows to secondary markets such as Indonesia, Japan, and South Korea. Then, we cross-referenced these exporters with CRI's priority list of 13 target companies to identify overlap and validate shipping records.
- For each priority company, we mapped consignee entities, calculated volumes, and identified top consignees by total shipment weight. In the second phase, we traced downstream transactions by examining whether those consignees subsequently re-exported nickel or nickel-containing products. This was done by querying Panjiva, Sayari Graph, and MarkLines for any onward shipments, processing, or commercial activity involving nickel sulfate, ferronickel, electrolytic nickel, or final goods such as lithium-ion batteries or stainless steel (which could include automotive steel).
- In parallel, Empower reconstructed corporate ownership and affiliations using a mix of open-source intelligence (OSINT) and proprietary databases. In particular, we used Sayari Graph, Capital IQ, and official government registries to identify beneficial owners, cross-border linkages, and politically exposed persons (PEPs) with influence over the nickel industry.
- Several limitations impacted the scope and depth of our research:
 1. Restricted access to Philippine company registries: The Philippines Securities and Exchange Commission (PSEC) requires individuals to register in person to access detailed corporate filings such as General Information Sheets (GIS). For safety and privacy reasons, Empower opted not to complete this step. As a result, detailed ownership records are available only for companies that are publicly listed or have voluntarily disclosed their GIS online.
 2. Fragmentation of export routes: Many nickel mining companies in Caraga use their own private causeways and barges rather than centralized port infrastructure. This limits traceability and makes it difficult to determine which extraction site contributes to a given shipment.
 3. Disconnect between mine operators and exporters: In several cases, the entity listed as exporter in customs data is not the same as the MPSA holder or operator on the ground. Export functions are often delegated to intermediary companies (e.g. logistics arms, related traders), complicating efforts to trace ore back to specific mine sites.

4. Opaque downstream transactions: Once nickel ore reaches China or Indonesia, for example, public visibility into its transformation, use, and further trade is significantly reduced. Many follow-on shipments are not labeled with commodity-specific HS codes or are aggregated under vague categories such as “containers,” making it difficult to confirm nickel content without further investigation.
- Despite these challenges, Empower triangulated shipment data using registry information, shareholder disclosures, press releases, civil society reports, and international trade filings to produce as complete a picture as possible of each actor’s role in the upstream and downstream supply chain.
 - This report is organized in five sections:
 1. A quantitative overview of Philippine nickel shipments based on Panjiva data
 2. In-depth profiles of 13 priority exporters identified by CRI, including a mapping of ownership and control relationships across key companies
 3. A reconstruction of supply chain flows based on follow-on shipments from China and Indonesia
 4. Conclusions and recommendations for further action
 - This analysis provides a foundation for more advanced supply chain tracing, potential field verification, and strategic engagement with downstream stakeholders in battery and automotive value chains.

2. Main Trade Trends and Actors

- Empower extracted customs data on 3,473 shipments of nickel ore and concentrates (HS Code 2604) exported from the Philippines between April 2020 and late 2024. These shipments were directed to eight different destination countries. The data show a strong concentration in a single market: China alone received 3,194 shipments, accounting for 92% of the total export volume, followed by Indonesia (5.5%), Japan (2.2%), and minor volumes to South Korea, Hong Kong, Australia, Thailand, and the United States.¹

Table 1 – Number of Philippines nickel shipments by country of destination

Country of destination	# shipments	%
China	3,194	92
Indonesia	185	5.5
Japan	78	2.2
South Korea	10	0.3
Hong Kong	3	0
Australia	1	0
Thailand	1	0
United States	1	0
Total	3,473	100

Source: Empower, using Panjiva data, 2025.

- The export activity is driven by a relatively small number of actors: 65 distinct exporters and 110 unique importers. In 27 shipments, consignee information was not disclosed, although both the origin company and destination country were recorded.
- The Top 10 exporters were ranked by both total shipment value (in USD) and total volume (in kg). These lists help distinguish between companies that export high-value ore and those that focus on high-volume shipments.

Table 2 – Top 10 shippers (exporters) by value (USD)

#	Shipper	Total value
1	Carrascal Nickel Corp.	816,777,250
2	C.T.P. Construction and Mining Corp.	795,167,953
3	Taganito Mining Corp.	663,037,750
4	Platinum Group Metals Corp.	503,694,400
5	Marcventures Mining and Development Corp.	483,067,250
6	Cagdianao Mining Corp.	337,759,750
7	Rio Tuba Nickel Mining Corp.	319,251,099
8	Eramen Minerals Inc.	218,348,250
9	Hinatuan Mining Corp.	210,752,750
10	Zambales Diversified Metals Corp.	208,388,068

Source: Empower, using Panjiva data, 2025.

¹ Although the Philippines is an important nickel producer, Indonesia remains the leading global source of this material. It is likely that much of the nickel consumed in Western countries originates from Indonesia, which would require a dedicated analysis. However, platforms, such as Panjiva, have data availability limitations for Indonesia (only the period 2019-21 is currently available).

Table 3 – Top 10 shippers by weight (kg)

#	Shipper	Total weight
1	C.T.P. Construction and Mining Corp.	24,756,700,000
2	Platinum Group Metals Corp.	20,392,000,000
3	Taganito Mining Corp.	18,874,500,000
4	Cagdianao Mining Corp.	10,433,000,000
5	S R Metals Inc.	10,086,000,000
6	Marcventures Mining and Development Corp.	8,598,150,000
7	Hinatuan Mining Corp.	8,107,000,000
8	Rio Tuba Nickel Mining Corp.	7,848,241,000
9	Agata Mining Ventures Inc.	6,096,000,000
10	Zambales Diversified Metals Corp.	5,475,000,000

Source: Empower, using Panjiva data, 2025.

- The comparison of value and volume reveals meaningful discrepancies. For instance, Carrascal Nickel Corp. ranks first by export value (816.8 million USD) despite not appearing in the Top 10 by weight, suggesting a focus on higher-grade or higher-priced ore. Conversely, C.T.P. Construction and Mining Corp. leads in shipment weight, yet ranks second in export value, indicating a large-volume, possibly lower-margin business model.
- To better understand trade flows beyond China — where post-import visibility becomes limited — Empower recalculated the rankings excluding all China-bound shipments. This allows clearer insight into exporters with diversified destination markets.

Table 4 – Top 10 shippers by value (USD) excluding China

#	Shipper	Total value
1	Taganito Mining Corp.	105,673,500
2	Hallmark Mining Corp.	42,960,110
3	Cit nickel Mines and Development Corp.	38,481,000
4	Carrascal Nickel Corp.	24,511,000
5	Rio Tuba Nickel Mining Corp.	23,281,000
6	Zambales Diversified Metals Corp.	21,417,500
7	Eramen Minerals Inc.	19,442,500
8	Cagdianao Mining Corp.	18,533,000
9	C.T.P. Construction and Mining Corp.	17,050,000
10	Sinosteel Philippines HY Mining Corp.	15,290,000

Source: Empower, using Panjiva data, 2025.

Table 5 – Top 10 shippers by weight (kg) excluding China

#	Shipper	Total weight
1	Taganito Mining Corp.	3,394,500,000
2	Hallmark Mining Corp.	1,794,065,000
3	Citinickel Mines and Development Corp.	1,322,000,000
4	Carrascal Nickel Corp.	1,000,500,000
5	Cagdianao Mining Corp.	706,500,000
6	C.T.P. Construction and Mining Corp.	605,000,000
7	Sinosteel Philippines HY Mining Corp.	605,000,000
8	Zambales Diversified Metals Corp.	505,000,000
9	Platinum Group Metals Corp.	482,000,000
10	Rio Tuba Nickel Mining Corp.	461,000,000

Source: Empower, using Panjiva data, 2025.

- When China is excluded as a destination, the top four companies remain consistent across both value and weight rankings: Taganito Mining Corp., Hallmark Mining Corp., Citinickel Mines and Development Corp., and Carrascal Nickel Corp. This indicates a significant role for these firms in supplying markets such as Japan, Indonesia, and India.
- Seven companies appear in both Top 10s by value (including and excluding China): Taganito Mining Corp., Carrascal Nickel Corp., Rio Tuba Nickel Mining Corp., Zambales Diversified Metals Corp., Eramen Minerals Inc., Cagdianao Mining Corp., and C.T.P. Construction and Mining Corp.
- Six companies appear in both Top 10s by weight (including and excluding China): Taganito Mining Corp., Cagdianao Mining Corp., C.T.P. Construction and Mining Corp., Zambales Diversified Metals Corp., Platinum Group Metals Corp., and Rio Tuba Nickel Mining Corp.
- Additionally, companies highlighted by CRI include:
 1. C.T.P. Construction and Mining Corporation
 2. Platinum Group Metals Corporation
 3. San Roque Metals Inc. (SRMI)
 4. Marcventures Mining and Development Corporation
 5. Libjo Mining Corporation
 6. Oriental Vision Mining Philippines Corporation
 7. East Coast Mineral Resources Co. Inc.
 8. Westernshore Nickel Corporation
 9. Core Mining Corporation
 10. Wellex Mining Corporation
 11. SinoSteel
 12. Oriental Synergy Mining Corporation
 13. AAM-PHIL Natural Resources Exploration and Development Corporation.

3. Analysis of Targeted Mining Companies

- This section provides a focused examination of the companies identified by CRI as priority actors within the Philippine nickel ore industry. These companies were pre-selected by CRI based on concerns related to environmental risk, human rights impacts, political affiliations, or opacity in ownership and operations. Empower cross-referenced CRI’s list of 13 priority mining entities against the broader Panjiva dataset of 3,473 nickel ore shipments from the Philippines (2020–24) to assess their shipping behavior, trade partners, and international reach.
- To contextualize export activity, Empower compared these companies’ performance against the general rankings of the Top 10 exporters by volume and value (see Section 2). Notably, several targeted companies — including C.T.P. Construction and Mining Corp., Platinum Group Metals Corp., San Roque Metals Inc. (SRMI), and Marcventures Mining and Development Corp. — also rank among the largest exporters nationally, reinforcing their systemic relevance.
- For each of these, Empower also traced their consignee relationships, identifying the major international buyers of nickel ore in terms of both shipment frequency and aggregate shipment weight. The Top 10 importers linked to the targeted exporters are presented in Table 6. These consignees are mostly headquartered in China, with a few entities operating out of Singapore and Macao. They play a pivotal role in either direct processing or redistribution of raw ore.

Table 6 — Top 10 consignees

#	Consignee	# Shipments	Value (USD)	Weight (kg)
1	Ningbo Lygend Wisdom Co., Ltd.	243	465,041,453	13,286,850,000
2	RSD Mining Co., Ltd.	164	267,547,500	9,020,000,000
3	Win Ascend Ltd.	74	100,705,000	4,070,000,000
4	Wu Hua Holding Ltd.	61	73,090,500	3,200,000,000
5	Pacific Infinity Resources	57	65,974,000	3,120,000,000
6	Fortune Metals Inc.	54	286,301,250	2,957,900,000
7	Anncore Resources Pte. Ltd.	43	51,733,500	2,387,000,000
8	Orient Joyce Development Ltd.	43	60,102,500	2,353,000,000
9	Vanhui Resources Co., Ltd.	40	82,623,500	2,190,000,000
10	Odyssey Trading & Management	33	36,712,500	1,780,000,000

Source: Empower, using Panjiva data, 2025.

- These consignees represent key first-tier buyers in the international nickel value chain. While many appear to act as intermediaries or trading firms, others are linked to refining and downstream processing (e.g. nickel sulfate or ferronickel) and may in turn supply battery, steel, or EV manufacturers. The remainder of this section (3.1–3.13) presents detailed company profiles for each of the mining firms identified by CRI. Each profile includes shipment volume and value based on customs records; key consignee relationships; ownership and corporate structure; notable affiliations with political elites or foreign entities; and known regulatory, compliance, or environmental issues (where applicable).
- This analytical breakdown aims to support CRI’s advocacy by clarifying the corporate architecture and trade behavior of the most strategically relevant nickel exporters in the Philippines.

3.1 C.T.P. Construction and Mining Corp.

- C.T.P. Construction and Mining Corporation is a 100% Filipino-owned mining company based in Barangay Adlay, Carrascal, Surigao del Sur, Philippines.²
- It holds three MPSA in the Carrascal area of Surigao del Sur. Two of these are operated directly by C.T.P., while the third is operated by Carrascal Nickel Corporation.³
- C.T.P. Construction and Mining Corporation is registered as a private company in the Philippines and is fully Filipino-owned in compliance with national mining laws.⁴ Its president is the Filipino national Clarence T. Pimentel Jr., who is identified as the primary beneficial owner. Ownership is shared with other members of the Pimentel family, who are also politically active in the Philippines.⁵
- Between April 2020 and October 2024, C.T.P. Construction and Mining Corp.⁶ made 450 shipments of nickel ore, totaling 24,756,700,000 kg and valued at 795,167,953 USD. These were delivered to China J.K. International Trading Co., Fortune Metals Inc., RSD Mining Co., Ltd., Vanhui Resources Co., Ltd., Win Ascend Ltd., Wu Hua Holding Ltd., and Zhen Hao Investment, all to destinations in China. Additionally, shipments to Lighten Mining Resources Ltd. and Ningbo Lygend Wisdom Co., Ltd. were shipped to both China and Indonesia. C.T.P. Construction and Mining Corp. ranked among the Top 10 shippers by both weight and value, regardless of whether shipments to China were included or excluded.

3.2 Platinum Group Metals Corporation (PGMC)

- PGMC is a Philippine mining company founded in 1983 and is 99.98% owned by Global Ferronickel Holdings, Inc. (PSE:FNI), its publicly listed parent company. The remaining 0.02% is owned by various individuals, including Joseph C. Sy (chairman), Dante R. Bravo, Noel B. Lazaro, Francis C. Chua, and others, all of whom are either directors or founding shareholders and have only nominal stakes.⁷
- FNI, which exercises ultimate control over PGMC, has a 2025 shareholding structure composed of: PCD Nominee Corp. (Filipino) 46.41%, PCD Nominee Corp. (non-Filipino) 30.31%, Regulus Best Nickel Holdings, Inc. 10.21%, Blue Eagle Elite Ventures, Inc. 6.81%, and Sohoton Synergy, Inc. 4.55%. These figures indicate that approximately 54% of FNI is held by public investors, while 46% is retained by insiders, primarily through nominee structures.⁸

2 “C.T.P. Construction and Mining Corporation,” Philippine Nickel, philippinenickel.org/members/C.T.P.-construction-and-mining-corporation.

3 Details of Mining Concessions: MPSA No. 018-93-X: Renewed on July 8, 2019, valid until October 22, 2044, covering 3,654 hectares, which represents 13.75% of Carrascal’s total land area. See: Mines and Geosciences Bureau Regional Office No. XIII, C.T.P. Construction and Mining Corporation (Adlay Nickel Project), April 2018, mgbr13.ph/MGB-R13DataFiles/MMD/2017/MineralStatistics/QuickFacts/C.T.P.CMC%20II%20Quickfacts.pdf; and, MPSA No. 158-00-XIII: Assigned to Surigao Integrated Resources Corporation on August 30, 2005, covering 321.40 hectares. See also: Mines and Geosciences Bureau Regional Office No. XIII, C.T.P. Construction and Mining Corporation (Dahican Nickel Project), April 2018, mgbr13.ph/MGB-R13DataFiles/MMD/2017/MineralStatistics/QuickFacts/C.T.P.CMC%20I%20Quickfacts.pdf; MPSA No. 243-2007-XIII: Operated by Carrascal Nickel Corporation, with suspension lifted in April 2019; and, “Mine profile: C.T.P. Construction and Mining Corp.,” PCIJ, March 31, 2021, pcij.org/2021/03/31/mine-profile-C.T.P.-construction-and-mining-corp.

4 C.T.P. corporate documents available at share.mayfirst.org/s/Dgx5B5zXzPkHygW.

5 “Digging for profits: Who owns PH mines?,” Philippine Center for Investigative Journalism (PCIJ), March 31, 2021, pcij.org/2021/03/31/mine-profile-C.T.P.-construction-and-mining-corp.

6 “C.T.P. Construction and Mining Corporation: Full Profile,” S&P Capital IQ, undated, share.mayfirst.org/s/m4w5fokFpYr9KjL.

7 “Global Ferronickel Holdings,” Philippines Security and Exchange Commission (PSEC), gfni.com.ph/mining2022/wp-content/uploads/2024/11/Annual-Report-2023.pdf#:~:text=Inc.

8 “Global Ferronickel Holdings. Stock Information,” PSEC, gfni.com.ph/investor-relations/share-information/#:~:text=3%20REGULUS%20BEST%20NICKEL%20HOLDINGS

- Joseph C. Sy is the main beneficial owner and founder of PGMC, having led the 2014 backdoor listing through which PGMC acquired control of FNI. In 2016, Sy was estimated to beneficially control 46.44% of FNI through several corporate entities, including Sohoton Synergy and Regulus. His close associate Dante R. Bravo and foreign partners Wei Ting and Seng Gay Chan (linked to Huatai Investment Holding Pty. Ltd., which held 16.74% in 2016) are also part of the original ownership bloc. Huatai's stake reflects a Chinese-linked foreign ownership interest.⁹
- Between May 2020 and October 2024, PGMC made 378 shipments of bulk nickel ore to Baiyin International Investment Ltd., Baosteel Resources International Co., Gaea Trading Hk Ltd., Guangdong Century Tshingshan Nickel, Hong Kong Zoey Trading Co., Ltd., Ningbo Lygend Wisdom Co., Ltd., Pgm International Ltd., Sk Chemical Trading (Hk) Ltd., Vanhui Resources Co., Ltd., Wu Hua Holding Ltd., Xiangfa Mining Industry Group Ltd., Yeter International Ltd., and Yuantuo Resources Pte., Ltd. in China. Additionally, Ghgc Holdings Ltd. and Viva Global Group Ltd. received cargo in both China and Indonesia. The shipments totaled 20,392,000,000 kg and were valued at 503,694,400 USD.

3.3 San Roque Metals Inc. (SRMI)

- San Roque Metals Inc. (SRMI) holds a 24% equity stake in SRMI Bougainville Limited, a Papua New Guinea-registered joint venture. The majority shareholder is Galeo Equipment Corporation with 48%, followed by San Roque Shipping, Inc. (10%), San R Mining and Construction Corp. (10%), and Francis Enrico Gutierrez (8%). In a second PNG entity, Galeo South Pacific Limited, Galeo Equipment Corporation again holds 48%, while Francis Enrico Gutierrez directly owns 40%, and SR Metals, Inc. and San R Mining and Construction Corp. each hold 6%. These structures reflect a strategic alliance between SRMI and Galeo Equipment Corporation, with significant individual ownership retained by Francis Enrico Gutierrez, who also serves as chairman of SRMI. This international expansion complements SRMI's domestic ownership of six fully controlled subsidiaries in the Philippines, including Asian Nickel Corporation, San Roque Construction, and SR Metals Resources Corporation, the latter of which wholly owns SR Resources Development Corporation and SR Transportation Services Corporation.
- SRMI directly owns three companies: Asian Nickel Corporation (100%), San Roque Construction (100%), and SR Metals Resources Corporation (100%). In turn, SR Metals Resources Corporation holds 100% of two additional entities: SR Resources Development Corporation and SR Transportation Services Corporation. This places SRMI at the apex of a six-entity structure, with full control over all subsidiaries.¹⁰
- In 2023, SRMI strategically expanded its mining portfolio by acquiring key assets from Wellex Mining Corporation, a privately held Philippine mining company incorporated on January 10, 2008 (see Section 3.10). Wellex Mining was majority-owned by The Wellex Group, Inc. (TWGI), the holding company of the Gatchalian family, with ultimate beneficial ownership resting with William T. Gatchalian and his children, particularly Kenneth T. Gatchalian who served as chairman. The acquisition by SRMI included mineral rights and mining permits, notably the Wellex Area II Nickel Mining Project, which reported a production of 738,596 metric tons in 2023. This move allowed SRMI to consolidate its position in the Philippine nickel mining industry,

⁹ %2C,12.

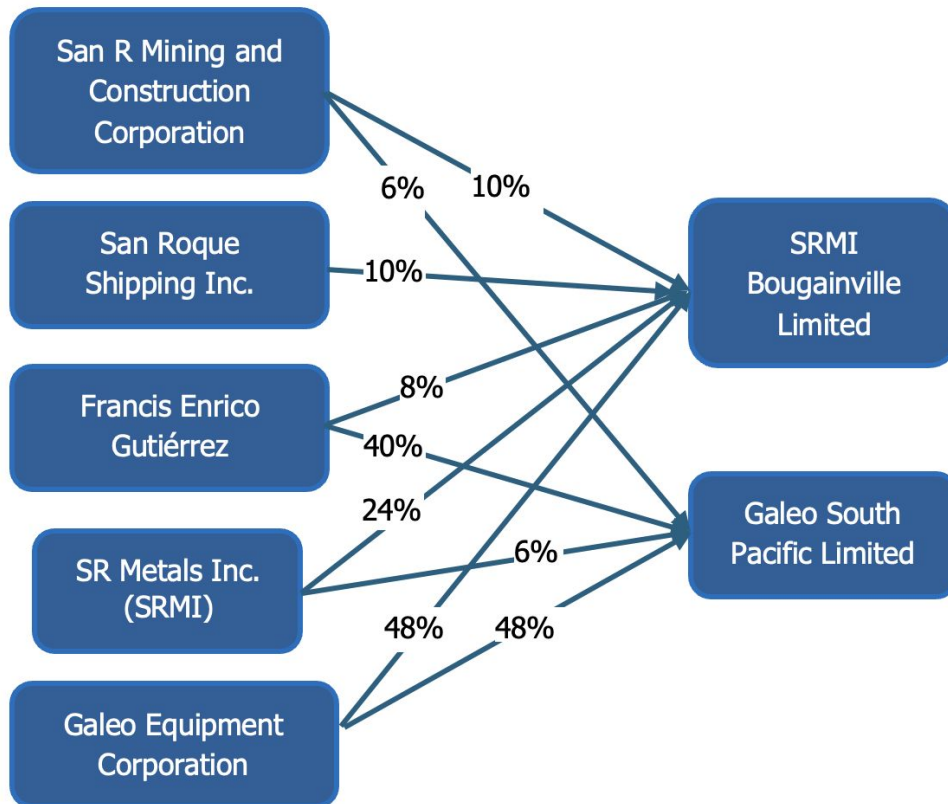
⁹ "Global Ferronickel Holdings. Stock Data," PSE edge, edge.pse.com.ph/companyPage/stockData.do?cmpy_id=224.

¹⁰ SRMI corporate documents available at share.mayfirst.org/s/qm85xfW9QagoBDj.

leveraging the acquired assets to enhance its operational capacity and resource base.¹¹

- The Gutierrez family appears to be central to this network, with multiple family members serving on boards and as executives. Miguel Alberto Gutierrez currently serves as CEO, president, and director of SRMI, while Francesca Bernice Gutierrez, Milagros Ureshii Gutierrez, and Francis Enrico Gutierrez occupy senior roles across the entities. Notably, Francis Enrico Gutierrez is listed as chairman of the Board.
- Between April 2020 and December 2024, San Roque Metals Inc. (SRMI)¹² executed 184 bulk nickel-ore shipments totaling 10,086,000,000 kg and valued at USD 195,430,150. These were consigned by the following companies in China: Anncore Resources Pte. Ltd., China JK International Trading Co., Fortune Metals Inc., Hua Lu Holdings Pte. Ltd., Land Sea Maritime Co. Ltd., Ningbo Lygend Wisdom Co. Ltd., Pacific Infinity Resources, Spring Treasure Global Ltd., Tantong Resources Co. Ltd., Transamine Far East Ltd., Transamine S.A., United Metal and Resources Co., Wu Hua Holding Ltd., and Wuchan International Trade. Notably, Hongkong Lyxin International received shipments to both China and Indonesia.

Graph 1 – SRMI Structure from Papua New Guinea Registries



Source: Empower, using data from Papua New Guinea registries, 2025.

¹¹ "SEC 17-A," Wellex Industries, 2023, wellexindustries.com/SEC%20Form%202017-A-%20-%202023.pdf.

¹² "SR Metals, Inc.," S&P Capital IQ, undated, share.mayfirst.org/s/nxk7Yazyfz8zcPm.

3.4 Marcventures Mining and Development Corp. (MMDC)

- MMDC is a wholly-owned subsidiary of Marcventures Holdings Inc. (MHI),¹³ a publicly listed company on the Philippine Stock Exchange (PSE:MARC), whose ultimate parent company is Philippine Dealing System Holdings Corp.¹⁴ Although beneficial owners behind the nominee accounts are undisclosed, MHI is widely reported to be controlled by House Speaker Martin Romualdez.¹⁵
- Between April 2020 and October 2024, MMDC made a total of 161 shipments of nickel ore to 12 companies: Big Wave Resources Co., Ltd., Bright Point Trading Pte. Ltd., Dingchuang Groups Ltd., Fortune Metals Inc., Hongkong Topway Trading Co. Ltd., Ningbo Lygend Wisdom Co. Ltd., Regent Sound Ltd., Spring Treasure Global Ltd., Transamine Far East Ltd., Vanhui Resources Co. Ltd., Wu Hua Holding Ltd., and Yuantuo Resources Pte. Ltd. These shipments amounted to 8,598,150,000 kg in weight with a value of 483,067,250 USD. All shipments were directed to China. MMDC is a subsidiary of Marcventures Holdings, Inc. Additionally, this company (MMDC) ranked among the Top 10 shippers when including China as a destination (see Tables 2 and 3).

3.5 Libjo Mining Corp.

- Based on available records, Libjo Mining Corporation exhibits a diversified ownership structure comprising both individual and corporate shareholders, with domestic and international affiliations.¹⁶ Key individual shareholders include Salvador B. Zamora II — who concurrently holds the positions of chairperson and president — alongside Salvador III T. Zamora, Juan Fernando Merris Borra, and Hilario G. Pagautan. Corporate stakeholders encompass East Coast Mineral Resources Co. Inc., a domestic entity led by President Sofia Gatan G. Pagautan, and Hong Kong Yichen International Mining Ltd., indicating Chinese corporate involvement. Additionally, Chinese nationals Wuqing Zhao, Yinghu Yang, and Shuling Bi are listed among the shareholders.
- The recurrence of the Zamora and Pagautan surnames suggests familial ties influencing both individual and corporate ownership. Salvador B. Zamora II's dual leadership roles underscore a centralized governance model, although further details about the broader executive team remain undisclosed in the current records.
- Between May 2020 and October 2024, Libjo Mining Corp.¹⁷ made 47 shipments of nickel ore in bulk totaling 2,585,000,000 kg and valued at 75,572,250 USD. These shipments were consigned to nine companies: Big Wave Resources Co. Ltd., China JK International Trading Co., Fortune Metals Inc., Hongkong Lyxin International, Spring Treasure Global Ltd., Tian Fang Hongkong Holdings Ltd., Vanhui Resources Co. Ltd., Wu Hua Holding Ltd., and Yuantuo Resources Pte. Ltd. All shipments were delivered to China, except for three shipments to Yuantuo Resources Pte. Ltd. in Indonesia.

¹³ MHI underwent a major restructuring in 2017, merging with Asia Pilot Mining Philippines Corp. and BrightGreen Resources Holdings Inc., resulting in the integration of subsidiaries Alumina Mining Philippines Inc. (AMPI), Bauxite Resources Inc. (BARI), and BrightGreen Resources Corp. (BRC). As of March 2025, MHI reported 3.01 billion outstanding shares, with 86.19% held by PCD Nominee - Filipino and 2.73% by PCD Nominee - Non-Filipino, while 11.07% are certificated shares.

¹⁴ "Marcventures Mining and Development Corporation: Corporate Structure," S&P Capital IQ, undated, share.mayfirst.org/s/jjfXes7HZFtqrg6; and, "Marcventures Mining and Development Corporation: Full Profile," S&P Capital IQ, undated, share.mayfirst.org/s/px7f3Mz4k5B6rjR.

¹⁵ Romualdez is a cousin of President Ferdinand Marcos Jr. Romualdez also holds interests in other mining ventures, including Bright Kindle Resources and Investments Inc., which recently acquired Strong Built Mining Development Corp.

¹⁶ Global Ferronickel Holdings, cdn.philstocks.ph/v5/docs/FNI.pdf.

¹⁷ "Mine profile: Libjo Mining Corp.," PCIJ, 31 March 2021, pcij.org/2021/03/31/mine-profile-libjo-mining-corp.

3.6 Oriental Vision Mining Philippines Corp. (OVMPC)

- Oriental Vision Mining Philippines Corp. (OVMPC) is another Dinagat Islands nickel mining company, incorporated on March 4, 2008. It operates a 2,314-hectare nickel concession spanning Tubajon, Libjo, and Cagdianao municipalities in Dinagat (under MPSA No. 242-2007-XIII) with a term from 2007-32.
- OVMPC maintains a shareholder structure combining corporate and individual investors. Corporate shareholders include Eminent Fame International Ltd. — a foreign entity with undisclosed beneficial owners¹⁸ — and Adnama Mining Resources Inc., a Philippine-based mining company. The identified individual shareholders include Chen Fang, who also serves as chairperson of the Board; Ferdinand S. Borja, who holds both shareholder and presidential roles; and Carmen Lorenzana, Allan L. Crisologo, and Ulfredo A. Tuyac. Eminent Fame and Chen Fang (Chinese nationals) together hold roughly 39%, while the Filipino owners (Adnama, Borja, Lorenzana, Crisologo, Tuyac) hold 61%.¹⁹ This structure satisfies the 60/40 ownership restriction for mineral agreements.²⁰
- OVMPC operates under a partnership with Norweah Metals and Minerals Company, Inc., the MPSA holder for Tubajon, Dinagat Island. In this arrangement, OVMPC acts as operator, while Norweah’s board is chaired by Hilario G. Pagautan and its presidency is held by OVMPC shareholder Ferdinand S. Borja, indicating a close corporate alignment between both entities.²¹
- Between June 2020 and October 2024, Oriental Vision Mining Philippines Corp. (OVMP) made 15 nickel ore shipments to Pacific Infinity Resources in China. These shipments weighed a total of 810,000,000 kg and were valued at 20,357,000 USD.²²

3.7 East Coast Mineral Resources Co., Inc.

- East Coast Mineral Resources Co., Inc. (ECMRC), now renamed East Coast Vulcan Mining Corporation (PSE:ECVC), is a privately held Philippine mining company incorporated in 1995 and majority-owned by Hon. Hilario G. Pagautan and his immediate family.
- ECMRC is 95.21% owned by Hon. Hilario G. Pagautan. The remaining shares are held by family members: Sofia G. Pagautan (3.19%), Isaac Hilario G. Pagautan II (1.15%), Michael Abraham G. Pagautan (0.3%), and Ma. Hilarnie Mercurie P. Parada (0.15%). The company holds three nickel MPSAs in the Dinagat Islands totaling 5,172 hectares, currently operated by Cagdianao Mining Corporation, Libjo Mining Corporation (see Section 3.5), Oriental Vision Mining Philippines Inc. (see Section 3.6), Westernshore Nickel Corporation (see Section 3.8), and Alnor Nac’s Construction and Development Corporation.

¹⁸ A search of Hong Kong company records and offshore leaks databases does not yield information about “Eminent Fame International Ltd.,” implying that it is likely incorporated in a secrecy jurisdiction (or is too new or small to have been exposed in leaks). In the UK, a company by this name was registered in 2016 and dissolved in 2018, but it appears unrelated (different business). Given the context, it is most plausible that Eminent Fame Intl. is a British Virgin Islands company created to hold the Chinese partners’ equity in OVMPC. This is a common practice to circumvent direct foreign ownership limits while still securing economic rights via a shareholder agreement. See: “Eminent Fame International Limited”, Government of the United Kingdom, find-and-update.company-information.service.gov.uk/company/10493808.

¹⁹ “OVMPC,” Mines and Geosciences Bureau (MGB), mgbr13.ph/wp-content/uploads/NMMCI-OVMPC-PDI-2022.pdf.

²⁰ “Mine profile: Oriental Vision Mining Philippines Corp.,” PCIJ, 31 March 2021, pcij.org/2021/03/31/mine-profile-oriental-vision-mining-philippines-corp-2.

²¹ “Directory of Operating Metallic Mines in the Philippines,” MGB, mgb.gov.ph/images/Mineral_Statistics/2024/Operating-Metallic-Mines-in-the-Philippines-59-Feb-2024.pdf.

²² As of its most recent update, Capital IQ reports that NiHAO Mineral Resources International, Inc. holds a 30% equity stake in OVMPC. See: “Oriental Vision Mining Philippines Corporation: Full Profile,” S&P Capital IQ, undated, share.mayfirst.org/s/n9WTaPR8JcabA66.

- In July 2021, ECMRC initiated a backdoor listing by signing a ₱5.18 billion share subscription agreement with Vulcan Industrial & Mining Corporation (VIMC), a listed shell company previously owned by the Ramos family. Through the transaction, the Pagautan-led HGP Group subscribed to 5.18 billion new shares at ₱1.00 per share, gaining 85.5% control of VIMC's expanded capital (6.63 billion shares). VIMC was subsequently renamed East Coast Vulcan Corp. (PSE: ECVC), with ECMRC as its core operating asset. The transaction, structured as an asset-for-share swap subject to third-party valuation, reduced the company's public float from 40.37% to 14.54%. The HGP Group also controls 99.96% of Norweah Metals & Minerals Company, Inc. and holds senior positions in Libjo Mining Corporation, consolidating its influence across multiple nickel projects in the Dinagat region.²³
- This company does not appear in Panjiva records of nickel ore shipments originating from the Philippines.

3.8 Westernshore Nickel Corporation

- Westernshore Nickel Corporation is a Philippines-based mining company with a declared beneficial ownership linked to Antonio Lim Co, who also holds ownership in Carrascal Nickel Corporation and in Kafugan Mining Inc. (see Section 3.9), indicating a web of affiliated entities. The company operates under a 60% Filipino and 40% Chinese ownership structure,²⁴ combining domestic and foreign investment. It shares operational responsibilities with Libjo Mining Corporation (see Section 3.5) and Alnor Nac's Construction and Development Corporation, led by Salvador B. Zamora II and Norberto C. Perez, respectively. Antonio Lim Co serves as president, while Mary Belle D. Bituin holds dual roles as chief finance officer and director.
- Between June 2021 and October 2024, Westernshore Nickel Corporation executed 29 nickel shipments totaling 1,404,050,000 kg and valued at 29,361,500 USD. All shipments were consigned to P & I Resources Ltd. in China.

3.9 Kafugan Mining Inc. (former Core Mining Corporation)

- Kafugan Mining Inc., formerly known as Core Mining Corporation, is a 100% Filipino-owned private mining company operating in Surigao del Sur.
- Its beneficial owner and president is Antonio L. Co,²⁵ a prominent figure in the country's mining sector and current chairman of the Philippine Nickel Industry Association (PNIA).²⁶ Other key individuals involved include Tonee Charmaine Co, listed as executive vice president, and Johnny Co, director, both likely members of the Co family. The company's corporate structure is centered around direct ownership by the Co family and associates, with no foreign shareholders or institutional investors.²⁷
- Kafugan Mining Inc. acquired operational control of MPSA No. 247-2007-XIII from Ludgoron Mining Corporation in 2015 and officially took over a portion of the mining tenement through a government-approved split in 2018. The remaining portion is still held by Ludgoron, but operated by Kafugan under authorization from the Mines and Geosciences Bureau (MGB). Kafugan's operations have since expanded, receiving an

²³ "SEC 17-C," SEC, share.mayfirst.org/s/jKBSQw5X85FGqtw.

²⁴ "Country Report," Philippine Extractive Industries Transparency Initiative (PH-EITI), [eiti.org/sites/default/files/2024-09/9th%20PH-EITI%20Country%20Report%20\(2nd%20version\)_Chap%201.pdf](https://eiti.org/sites/default/files/2024-09/9th%20PH-EITI%20Country%20Report%20(2nd%20version)_Chap%201.pdf).

²⁵ See Beneficial Ownership Registry, phei.dof.gov.ph/boregistry.

²⁶ "Kafugan Mining Inc.," Philippine Nickel Industry Association, philippinenickel.org/members/kafugan-mining-inc.

²⁷ "Project Description for Scoping," Core Mining Corporation, eia.emb.gov.ph/wp-content/uploads/2022/09/Core-mining-PDS-and-IEC-report.pdf.

Environmental Compliance Certificate in 2019 and multiple Presidential Mineral Industry Environmental Awards (PMIEA) between 2021-23.²⁸

- Kafugan is affiliated with other mining companies under Mr. Co's leadership, such as Carrascal Nickel Corporation and Westernshore Nickel Corporation (see Section 3.8), though these entities are legally independent. This network underscores that Core Mining (Kafugan) is part of a broader portfolio of mining investments owned by Mr. Co. However, Westernshore and other ventures are parallel companies and not owned by Kafugan; instead, they are sister companies linked by common owners.²⁹
- Between October 2022 and October 2024, Kafugan Mining Inc. executed 58 bulk nickel ore shipments, totaling 3,081,000,000 kg and valued at 62,277,500 USD. These were consigned by Fortune Metals Inc., Leap (Macao) Trading Co. Ltd., Odyssey Trading & Management, Tsingshan Holding Group Co. Ltd., and Wu Hua Holding Ltd. in China, with shipments to Han Ei Co. Ltd. delivered to both China and Indonesia.

3.10 Wellex Mining Corporation

- Wellex Mining Corporation is a privately held mining company in the Philippines, incorporated on January 10, 2008, and majority-owned by The Wellex Group, Inc. (TWGI), the holding company of the Gatchalian family.
- The company's initial shareholders included TWGI, Kenneth T. Gatchalian (current chairman), Joson T. Lim, Lamberto B. Mercado Jr., Ruben D. Torres, and Richard L. Ricardo, all affiliated with the Wellex Group either as family members or long-time associates. Ultimate beneficial ownership rests with William T. Gatchalian, founder of TWGI, and his children, particularly Kenneth Gatchalian, who also leads other group ventures.³⁰ Though Wellex Industries Inc. is a listed affiliate, it holds no shares in Wellex Mining, which remains privately controlled through TWGI.³¹ As of 2021, the company reported no external shareholders and no foreign ownership has been disclosed.³²
- While Wellex Mining submitted beneficial ownership data to Philippine regulators, it did not consent to public disclosure, maintaining partial transparency. The Gatchalians are identified as Politically Exposed Persons (PEPs) with multiple offshore holdings in the British Virgin Islands — as revealed by the Pandora Papers³³ — and possibly linked to broader group activities.
- This company does not appear in Panjiva's records of nickel ore shipments originating from the Philippines.

²⁸ "MPSA," MGB, mgbr13.ph/wp-content/uploads/2022/03/MPSA.pdf.

²⁹ Mr. Co is the president and CEO of Carrascal Nickel Corp., another mining company operating in the same Surigao del Sur region. CNC has been mentioned as an operator in partnership with C.T.P. Construction and Mining Corp. of a nearby nickel mine in Carrascal. This suggests that the Co group has multiple projects. CNC and Kafugan are distinct corporations, but they likely share resources or management. In fact, industry sources often credit Co (and CNC) for the success of the Pantukan nickel project, which is the same project under MPSA 247, indicating that CNC might be a local trade name for Kafugan's operation. For clarity, CNC is not formally listed as a subsidiary of Kafugan, but it represents Co's mining interests in the area. It is possible that Kafugan Mining Inc. eventually adopted the Carrascal Nickel Corp. name for its operating mine (since the mine is located in Carrascal). CNC can be considered an affiliate or the operating arm of the same venture, under the same beneficial ownership. On the other side, another affiliate is Westernshore Nickel Corp., where Antonio Co serves as president. Westernshore was identified as a co-operator of a nickel project in Dinagat Islands (in partnership with East Coast Mineral Resources Co.). This indicates that Mr. Co's business interests span multiple mining companies. Westernshore is separate from Core/Kafugan, but it shares common leadership and likely ownership. See: MPSA, *Op.Cit.*

³⁰ "Board of Directors," Wellex Industries Inc., wellexindustries.com/boarddirectorsmanagement.html.

³¹ "Listed Companies," The Wellex Group, wellex.com.ph/category/our-diversity/listed-companies.

³² "Mine profile: Wellex Mining Corp.," PCIJ, 31 March 2021, pcij.org/2021/03/31/mine-profile-wellex-mining-corp-2.

³³ "Offshore Leaks Database," International Consortium of Investigative Journalists, offshoreleaks.icij.org/nodes/21946.

3.11 Sinosteel Group Corporation Limited

- China Sinosteel Group Corporation Limited (Sinosteel Corporation) is a major Chinese State-owned enterprise (SOE) founded in 1993 and focused on mineral resources, metallurgical raw materials, mining, and engineering services.
- Historically, it was directly supervised by the State-owned Assets Supervision and Administration Commission (SASAC) of China's State Council, making it effectively 100% government-owned. In October 2020, as part of China's steel sector consolidation, SASAC transferred Sinosteel under the stewardship of China Baowu Steel Group, the world's largest steelmaker. The restructuring was formalized in December 2022 with Baowu absorbing Sinosteel Group. Sinosteel now operates as a wholly-owned subsidiary of China Baowu Steel Group Co., Ltd., which is itself a central SOE,³⁴ thus Sinosteel's controlling interest and beneficial ownership ultimately rest with the Chinese Government (via SASAC).³⁵ After the 2022 reorganization, Sinosteel is no longer directly managed by SASAC but rather by Baowu, although SASAC remains the ultimate owner through Baowu.³⁶
- Between August 2020 and October 2024, SinoSteel Philippines HY Mining Corp. (SinoSteel) delivered 50 nickel shipments totaling 2,738,000,000 kg and valued at 66,867,500.00 USD. These were delivered to two companies — Orient Joyce Development Ltd. and Sinosteel Overseas Resources Ltd. — in both Indonesia and China. Orient Joyce Development Ltd. received 43 shipments (33 to China and 10 to Indonesia), totaling 2,353,000,000.00 kg and 60,102,500.00 USD in value. Sinosteel Overseas Resources Ltd. received 7 shipments (6 to China and 1 to Indonesia), totaling 385,000,000 kg and 6,765,000 USD. Notably, SinoSteel featured among the Top 10 shippers by both weight and value when shipments to China were excluded.

3.12 Oriental Synergy Mining Corp. (OSMC)

- OSMC³⁷ is a Philippine mining firm (nickel) incorporated on November 24, 2005. It operated a 648-hectare nickel mine in Loreto and San Jose, Dinagat Islands, under MPSA No. 011-92-XIII (within the Surigao Mineral Reservation) from 1992 until its operations were halted in 2017.
- Its ownership has been privately held by a group of individual investors. According to Philippine SEC filings (General Information Sheet) summarized by the Philippine Center for Investigative Journalism,³⁸ its stockholders include Vicky P. Tan, Liza Fe Agua, Richard Tan, Chen Xing, Lin Yi Ru, Chen Yi Hong, and Nie Rui. Vicky P. Tan, who is listed as chairperson of the Board. The Tan and Agua family members are Filipino nationals, while the names Chen (Xing, Yi Hong), Lin Yi Ru, and Nie Rui suggest Chinese nationality (comprising the foreign minority ownership). This mix reflects the required 60% Filipino and 40% foreign ownership structure for an MPSA-holding company.
- Vicky P. Tan is also identified in mining records with the surname "Tan Jiang," indicating a possible family or marital tie to a Chinese partner. The other board

³⁴ "Sinosteel Stock," SOHU, q.stock.sohu.com/cn/002057/zygd.shtml.

³⁵ "Baowu Steel Gets China's Approval to Absorb Sinosteel," Yicai Global, 22 December 2022, yicaiglobal.com/news/baowu-steel-gets-china-approval-to-absorb-sinosteel.

³⁶ "China approves restructuring of two major state-owned steel enterprises," 21 December 2022, The State Council of The People Republic of China, english.www.gov.cn/statecouncil/ministries/202212/21/content_WS63a30926c6d0a757729e4a62.html.

³⁷ "Mine profile: Oriental Synergy Mining Corp.," PCIJ, 31 March 2021, pcij.org/2021/03/31/mine-profile-oriental-synergy-mining-corp.

³⁸ *Ibidem*.

members/officers are not publicly listed in the sources. OSMC does not appear to be part of a larger publicly listed holding company; it is a standalone corporation.

- OSMC was among the mines ordered closed by the Department of Environment and Natural Resources (DENR) in February 2017 for environmental violations. A DENR cancellation order dated February 8, 2017, was affirmed upon appeal on November 12, 2018, effectively canceling MPSA No. 011-92-XIII. Notably, prior to this cancellation, ownership of the MPSA had changed: on July 12, 2011, OSMC assigned its MPSA rights to Adnama Mining Resources, Inc., with DENR approval. This means that while OSMC originally held the mining contract, by 2011 the operating rights had been transferred to Adnama. Despite this, the 2016–17 mine audit and closure order still cited “Oriental Synergy Mining Corp.” as the accountable company, suggesting OSMC remained a key project operator or stakeholder until the shutdown. After 2018, OSMC effectively ceased mining operations.
- The most significant corporate linkage for OSMC is with Adnama Mining Resources, Inc. As mentioned, Adnama acquired OSMC’s MPSA in 2011. Adnama’s president is Fernando (Ferdinand) S. Borja, and Adnama itself later becomes a shareholder of Oriental Vision Mining Corp., indicating a continuity of interest. This suggests that the local investors behind Adnama (the Borja group) were involved in OSMC’s project and carried it forward after OSMC’s exit. Aside from this, OSMC’s individual Chinese stockholders do not show up as officers in other Philippine mining firms in the public record; they likely represented private foreign investors (there was no known publicly listed parent company). In summary, OSMC was a joint venture between Filipino owners (Tan family, Agua, etc.) and Chinese partners, and its Dinagat mining rights eventually passed to Adnama (a Filipino firm),³⁹ which creates a bridge to the Oriental Vision group (see Section 3.6).
- Between May 2022 and October 2024, Oriental Synergy Mining Corp. executed 18 shipments of nickel ores and concentrate, totaling 984,900,000 kg and valued at 25,100,750 USD. These shipments were delivered to China JK International Trading Co. and Hua Lu Holdings Pte. Ltd. in China, as well as to Yuantuo Resources Pte. Ltd. in Indonesia. Notably, Fortune Metals Inc., Rockcheck Hoperay (Singapore) Pte., and Vanhui Resources Co. Ltd. each received shipments in both China and Indonesia.

3.13 AAM-PHIL Natural Resources Exploration and Development (E&D) Corp.

- AAM-PHIL Natural Resources Exploration and Development Corp. is a private Philippine mining company whose shares are principally held by the Kho family and close associates.
- Kitson S. Kho is the majority beneficial owner, effectively controlling about 94%⁴⁰ of AAM-PHIL’s equity. This stake includes shares held directly in his name as well as shares held through The Kho Group Philippines, Inc., a local holding company that he controls. In the company’s General Information Sheet for 2020, the listed stockholders included Kitson S. Kho, Francis Albert Ngo, Lorenzo Yap, and The Kho Group Philippines, Inc., indicating the Kho family’s dominance in ownership.
- Lorenzo Yap (a Filipino associate) holds roughly the remaining 5%. Yap is a known business partner in the mining ventures and is listed as a stockholder in AAM-PHIL. Although the exact percentage for Yap is not explicitly published, it can be inferred as the balance of shares not held by Kho.

³⁹ “MGB-ROXIII-MPSA,” MGB, July 2024, mgbr13.ph/wp-content/uploads/MGB-ROXIII-MPSA-July-2024.pdf.

⁴⁰ The 94% figure represents Mr. Kho’s beneficial interest after tracing corporate holdings to the ultimate owner. See: “Beneficial owners of extractive companies in the Philippines. The Seventh PH-EITI Report (FY 2019),” PH-EITI, api.eiti.org/sites/default/files/attachments/annexes.pdf.

- Francis Albert S. Ngo (the company's president) holds a token stake of about 1%. Ngo is the long-time president and representative of AAM-PHIL, and his small equity stake reflects a managerial role rather than control.
- In summary, AAM-PHIL Natural Resources E&D Corp.'s corporate structure is straightforward: majority owned by the Kho family (via Philippine and Hong Kong holding companies), with minor stakes to local managers. The company weathered a temporary suspension, but remains operationally intact. All authoritative records, from SEC filings to MGB permits, reinforce that AAM-PHIL's beneficial owners are the Kho family and that it serves as one of the vehicles for the Hong Kong-based Kho Group's natural resource investments.⁴¹
- Between April 2021 and November 2024, AAM-PHIL Natural Resources Exploration and Development Corp.⁴² executed 25 shipments of nickel ore and concentrate, totaling 1,308,500,000 kg and valued at 19,769,000 USD. All shipments were consigned by Crown Group Universal Ltd., with 22 shipments delivered to China and 3 to Indonesia.

41 "Philippine Kho family establishes family office in Hong Kong," Hong Kong Government, 10 December 2024, www.info.gov.hk/gia/general/202412/10/P2024121000224.htm#:~:text=Since%20its%20establishment%20by%20the,end%20retail%2C%20and%20investment%20management.

42 "Mine profile: AAM-PHIL Natural Resources Exploration and Development Corp.," PCIJ, 31 March 2021, pcij.org/2021/03/31/mine-profile-aam-phil-natural-resources-exploration-and-development-corp.

4. Philippines' Nickel Ore Supply Chain

This section analyzes the supply chains of those companies that, after receiving nickel from priority Philippine exporters, were found to have subsequent shipments of nickel or nickel-containing products. The other companies that imported nickel into China or Indonesia — and are not discussed here — have no additional shipments of interest recorded in Panjiva, Sayari, or MarkLines.

4.1 Supply chain from Marcventures Mining and Development Corp. (MMDC)

- During 2023, Hongkong Topway Trading Co., Ltd. — which had previously received five nickel ore shipments from MMDC in China — exported five Li-ion Battery Pack HV assemblies (possibly containing nickel)⁴³ from China to Octillion Power Systems India Private Ltd. in India, via both sea and air, with a total value of 848,980 USD.⁴⁴ According to MarkLines, Octillion Power Systems India Private Ltd. supplied lithium-ion battery packs to JSW MG Motor India Private Ltd. for its Windsor EV and Comet EV models produced at the Panchmahal (Halol) plant.⁴⁵ Hongkong Topway Trading Co. Ltd. is a subsidiary of Xiamen Xiangyu Co., Ltd.⁴⁶ Both companies specialize in supply-chain services, making it unlikely that they themselves transformed nickel into lithium-ion battery packs.
- In October 2023, in a single identified transaction, Ningbo Lygend Wisdom Co. Ltd. — which had received nickel ore shipments from MMDC — exported 20,235 kg of nickel sulfate from China to Trathoimport Importação & Exportação S.A. in Brazil.⁴⁷ Empower was unable to identify any additional destinations in Brazil or abroad for the nickel sulfate traded by this company.
- In 2024, Transamine Far East Ltd. — which had previously received nickel ore shipments from MMDC — exported three shipments of electrolytic nickel from China to Steinweg Sharaf India Private Ltd. and Sanjay Commercial Co., valued at 3,625,379.88 USD, as well as a single shipment to Sanjay Commercial Co. worth 513,333.56 USD. All deliveries were made from China to India.⁴⁸ Empower found no further record of subsequent trading or processing of this material by the companies involved. It is important to note that these entities operate as traders, making it unlikely they conducted any processing or transformation of the nickel.⁴⁹

4.2 Supply chain from SRMI

- Ningbo Lygend Wisdom Co. Ltd — which received nickel ore from SRMI — exported nickel sulfate from China to Trathoimport Importação & Exportação S.A. in Brazil, as explained in Section 3.1, where we described the supply chain that originated with MMDC.⁵⁰

43 “Nickel in batteries,” Nickel Institute, undated, nickelinstitute.org/en/nickel-applications/nickel-in-batteries.

44 “Shipments from Hongkong Topway Trading Co. Ltd. to Octillion Power Systems India Pvt. Ltd.,” Panjiva, undated, share.mayfirst.org/s/2Aye8y7JC2CYddZ.

45 “Octillion Power Systems India Pvt. Ltd.: Supply Information,” MarkLines, undated, share.mayfirst.org/s/Xj8D6TT3be447St; and, “JSW MG Motor India Pvt. Ltd., Panchmahal (Halol) Plant,” MarkLines, undated, share.mayfirst.org/s/FpqQmKXGxnmMpeC.

46 “Hong Kong Topway Trading Co., Ltd.,” S&P Capital IQ, undated, share.mayfirst.org/s/9sSz8AnyAjKd466; and, “Xiamen Xiangyu Co., Ltd: Profile,” S&P Capital IQ, undated, share.mayfirst.org/s/JLc7SSGHTbNpoaR.

47 “Shipments of nickel sulfate from Ningbo Lygend Wisdom Co. Ltd. to Trathoimport Importação & Exportação S.A.,” Panjiva, undated, share.mayfirst.org/s/qa5KaTwoxmJX85G.

48 “Shipments of electrolytic nickel from Transamine Far East Ltd. to India,” Panjiva, undated, share.mayfirst.org/s/N5kQP2qAyHH8paB.

49 See: “Welcome to Steinweg,” C. Steinweg Group, undated, www.steinweg.com/countries/india; and, “About Sanjay Commercial Company,” Sanjay Commercial Company, undated, www.sanjaycommercialco.com.

50 “Shipments of nickel sulfate from Ningbo Lygend Wisdom Co. Ltd. to Trathoimport Importação & Exportação S.A.,” Panjiva, *Op. Cit.*

4.3 Supply chain from C.T.P. Construction and Mining Corporation

- Ningbo Lygend Wisdom Co. Ltd — which exported nickel sulfate from China to Trathoimport Importação & Exportação S.A. in Brazil — also received nickel ore from C.T.P. Construction and Mining Corporation.⁵¹
- Empower identified one undated shipment of bulk nickel ore from C.T.P. Construction and Mining Corporation — originating in the Philippines and delivered to PT Perkasa Metal Industry in Indonesia — recorded by Sayari but not included in Panjiva, totaling 111,260,000 kg and valued at 4,404,117 USD. We also found a single undated shipment of ferronickel from Indonesia to Jindal Stainless Ltd. (JSL) in India, weighing 3,272,900 kg and valued at 5,252,677.21 USD.⁵² Based on the company's statements, it is likely that JSL uses ferronickel for its stainless-steel production.⁵³ According to Panjiva, JSL exported 2,611 shipments — primarily of stainless steel — from India to 73 identified clients across nine countries, totaling 74,185,569 kg and valued at 200,104,908 USD.⁵⁴

4.4 Supply chain from Kafugan Mining Inc.

- Empower identified 3,000 shipments from Tsingshan Holding Group Co. Ltd. in China — which had previously received bulk nickel ore from Kafugan Mining Inc. in that country — to 40 clients in Indonesia.⁵⁵ We were unable to identify any commodities explicitly containing nickel or its derivatives. However, several companies with suggestive names — such as PT Youshan Nickel Indonesia, PT Indonesia Guang Ching Nickel and Stainless Steel Industry, and PT Weda Bay Nickel — received multiple shipments labeled only as “containers,” without specifying actual contents.

4.5 Supply chain analysis

- Graph 2 (below) illustrates the supply chain of nickel ore originating from targeted Philippine exporters, tracing its downstream trajectory through processing, trade, and final use. The network visualized in this diagram reflects our findings about the actors and materials involved in the international nickel trade, with a focus on companies prioritized by CRI.
- The structure of this supply chain is segmented into multiple functional layers, beginning with raw material extraction in the Philippines and culminating in the manufacture of lithium-ion batteries and stainless steel in India and Brazil. The nodes in Graph 2 are color-coded by country of operation and shaped by company type— mining firms, traders, processors, steel manufacturers, and OEMs — while the directed arrows represent shipment paths and are labeled by the specific commodity or product traded.
- At the upstream level, nickel ore is extracted by Philippine mining companies, including Marcventures Mining and Development Corporation, San Roque Metals Inc. (SRMI), and C.T.P. Construction and Mining Corporation. These actors export unprocessed bulk ore, which forms the foundation of the supply chain. The exported material is then delivered to intermediary entities in China and Indonesia. Notable among these are Ningbo Lygend Wisdom Co., Ltd. and Transamine Far East Ltd., both of which operate as high-volume traders and first-stage processors. In one identified

51 “Shipments of nickel sulfate from Ningbo Lygend Wisdom Co. Ltd. to Trathoimport Importação & Exportação S.A.,” Panjiva, *Op.Cit.*

52 “Shipments from and to PT Perkasa Metal Industry,” Sayari, undated, share.mayfirst.org/s/Hi62ondEQMoajem.

53 “Jindal Stainless acquires 49% stake in Indonesia-based nickel pig iron company,” JSL, 28 March 2023, www.jindalstainless.com/press-releases/jindal-stainless-acquires-49-stake-in-indonesia-based-nickel-pig-iron-company; and, “Jindal Stainless Limited,” S&P Capital IQ, undated, share.mayfirst.org/s/rct4nTZeY3SsXkK.

54 “Shipments from Jindal Stainless Ltd.,” Panjiva, undated, share.mayfirst.org/s/8Ma5GXa6T694d4Y.

55 “Shipments from Tsingshan Holding Group Co. Ltd.,” Sayari, undated, share.mayfirst.org/s/5NLircSaPnb9PgF.

case, PT Perkasa Metal Industry in Indonesia received direct shipments of nickel ore from C.T.P. Construction, later linked to the export of ferronickel to India.

- These intermediaries either transform the raw ore into semi-finished materials or facilitate its resale. For instance, Ningbo Lygend was found to re-export nickel sulfate to Brazil, while Transamine shipped electrolytic nickel to two buyers in India: Steinweg Sharaf India Private Ltd. and Sanjay Commercial Co. In both cases, the evidence suggests that these firms act as traders rather than processors, passing refined materials on to industrial clients.
- Further along the chain, these refined nickel products are integrated into manufacturing processes. In India, Octillion Power Systems India Pvt. Ltd. received high-voltage lithium-ion battery pack assemblies from Hongkong Topway Trading Co. Ltd., a company previously supplied with nickel ore by Marcventures. Octillion, in turn, supplies components to JSW MG Motor India Pvt. Ltd. for its Windsor and Comet EV models. The presence of ferronickel shipments received by Jindal Stainless Ltd. — one of India’s leading stainless steel producers — further confirms the role of Philippine nickel in supporting steel production, likely through intermediary refining operations in Indonesia.
- Although some shipments include clearly labeled materials such as nickel sulfate, electrolytic nickel, and ferronickel, others are classified generically — including multiple transactions to Indonesia labeled only as “containers,” often destined for companies with names suggesting nickel processing activities (e.g. PT Youshan Nickel Indonesia, PT Indonesia Guang Ching Nickel, and PT Weda Bay Nickel). These ambiguous records underline a persistent limitation in international trade data: the absence of precise product labeling, especially once ore enters the refining stage in China or Indonesia.
- Overall, Graph 2 highlights how the nickel extracted from Philippine mines feeds into multi-country industrial processes, moving through complex intermediary layers before reaching its final form in EVs and stainless steel products. The diagram emphasizes the globalized and opaque nature of these mineral supply chains, in which mining companies, trading firms, and manufacturers are connected through fragmented and often poorly documented exchanges. These findings support the need for further supply chain transparency, particularly given the human rights and environmental risks associated with extractive operations in politically sensitive regions.

Graph 2 — Philippines' Nickel Supply Chain

Nickel Supply Chain from the Philippines (Targeted Companies)

Nodes colored by the company's country of operation, with node shapes indicating company type; arrows show shipment direction



Source: Empower, using Panjiva data, 2025.

- Graph 2 provides a visual representation of the international supply chains linked to selected CRI-targeted nickel exporters in the Philippines. It traces the movement of nickel ore from extraction through successive stages of trade, processing, and manufacturing. Each node represents a company involved in the supply chain and is color-coded according to its country of operation: the Philippines (export origin), China (primary processor/trader), Indonesia (refiner), India (manufacturer), and Brazil (importer). Node shapes distinguish the type of company: diamonds indicate mining companies, circles represent trading firms, triangles mark OEMs or Tier 1 component producers, and pentagons indicate steel manufacturers.
- The directional arrows illustrate the flow of shipments, labeled with the material traded at each stage. For instance, nickel ore extracted by Marcventures Mining and Development Corp., San Roque Metals Inc. (SRMI), and C.T.P. Construction and Mining Corp. is exported to China and Indonesia, where it enters global value chains.
- From there, intermediaries such as Ningbo Lygend Wisdom Co. Ltd. and Transamine Far East Ltd. export processed forms of nickel, including nickel sulfate and electrolytic nickel, to downstream markets including Brazil and India. In India, these materials are

further transformed by companies such as Jindal Stainless Ltd. (which uses ferronickel in stainless steel production) and Octillion Power Systems India Pvt. Ltd., a battery pack manufacturer supplying JSW MG Motor India Pvt. Ltd. with components for EVs.

- Graph 2 thus highlights the vertical integration and geographic fragmentation of the nickel supply chain — from raw ore extraction in the Caraga region of the Philippines to final-product manufacturing in the automotive and metallurgical sectors abroad. It also demonstrates the central role of Chinese trading and refining firms, which act as key intermediaries between Philippine miners and global industrial users.

5. Conclusions and Recommendations

- This investigation has mapped in significant detail the upstream and downstream flows of nickel ore from the Philippines, focusing on 13 priority companies identified by Climate Rights International. By triangulating Panjiva and other trade data, corporate records, and ownership filings, Empower has traced 3,473 export shipments, identified over 100 consignee entities, and documented substantial overlaps in ownership and operations among extractors, exporters, and affiliated downstream actors.
 - **Concentrated Control and Political Links:** The Philippine nickel industry is dominated by a small set of politically connected individuals and families. Three figures — Hilario G. Pagautan, Antonio L. Co, and Ferdinand (Francisco) S. Borja — collectively hold ownership or executive roles in at least eight of the 13 companies. This concentration of control, reinforced through interlocking directorships and cross-holdings, points to a structurally opaque and vertically integrated sector.
 - **Export Dependence on China and Lack of Traceability:** China received 92% of all shipments, and downstream traceability becomes highly limited once the ore enters Chinese or Indonesian territory. Multiple intermediary firms — such as Ningbo Lygend Wisdom Co. Ltd. and Tsingshan Holding Group Co. Ltd. — dominate refining and re-export. Shipments are frequently aggregated or labeled in generic terms, hindering product-specific monitoring beyond the point of import.
 - **Ownership Complexity and Regulatory Loopholes:** Corporate structures frequently include layered ownership, nominee entities, and undeclared beneficial owners. Several firms rely on nominal Filipino-majority ownership to comply with the constitutional 60/40 rule while maintaining effective foreign or family control. Mechanisms such as backdoor listings, asset-for-share swaps, and shell corporations are used to consolidate influence while limiting transparency.
 - **Fragmented Export Infrastructure:** Most mining companies in Caraga operate their own barges and causeways, bypassing centralized customs points. This practice, combined with the use of export agents and affiliate traders, significantly reduces the ability to verify the origin of specific ore shipments and assign environmental or human rights risks to individual mine sites.
- In light of these findings, Empower recommends the following steps for continued research and advocacy:
 - **Conduct In-Depth Corporate Ownership Mapping:** To address current gaps in access to detailed ownership data, CRI could engage a trusted local partner able to conduct in-person requests for General Information Sheets (GIS) at the Philippine Securities and Exchange Commission (PSEC). This would allow for full identification of shareholders, nominee arrangements, and corporate hierarchies for privately held firms. Similar partnerships could be considered in Hong Kong, Singapore, or Indonesia to access offshore filings of parent or affiliate companies.
 - **Expand Field Investigations and Local Network Engagement:** Ground-truthing through field visits and interviews with community leaders, local journalists, and workers could help verify operational control, environmental impacts, and labor conditions at mine sites. Particular attention should be paid to companies where ownership appears fragmented but political or familial control is evident. This includes operators in Dinagat and Surigao del Sur such as Libjo, OVMPC, and Kafugan.
 - **Regulatory Compliance Review:** CRI should assess the extent to which top exporters comply with:

- a) Philippine national regulations, including those for environmental licensing (ECC), mining royalties, and indigenous peoples' rights (FPIC compliance).
- b) International standards such as the OECD Due Diligence Guidance, the EU Battery Regulation, and the Global Battery Alliance's framework.
- c) A structured compliance audit could support future advocacy toward automakers and importers demanding stronger enforcement in sourcing regions.
- **Monitor Value Chain Integration in Battery and Steel Industries:** This research memo documents initial downstream flows from Philippine nickel to battery producers (e.g. Octillion Power Systems) and stainless-steel manufacturers (e.g. Jindal Stainless Ltd.). Future research could track capital flows, long-term contracts, and processing capacity investments by Chinese and Indonesian firms to identify points of leverage for labor and environmental accountability.
- **Develop Advocacy and Investor Engagement Tools:** These findings may serve as the foundation for high-impact advocacy outputs, including:
 - a) Briefings for automakers and battery manufacturers with sourcing ties to China or Indonesia.
 - b) Shareholder engagement strategies targeting publicly listed firms such as Global Ferronickel Holdings, Marcventures Holdings, and East Coast Vulcan Corp.
 - c) Legal or policy memos submitted to regulatory bodies (e.g. EU Commission, U.S. SEC, German BAFA) highlighting due diligence gaps and regulatory blind spots.
- This memo provides a critical baseline for understanding the actors, flows, and structures behind Philippine nickel exports, and offers a roadmap for deeper accountability within the energy transition supply chain.