

Powering electric vehicles

HUMAN RIGHTS AND ENVIRONMENTAL ABUSES IN SOUTHEAST ASIA'S NICKEL SUPPLY CHAINS

MAY 2023

Contents

Executive summary	3
Key findings	3
Key recommendations	4
Introduction	5
Philippines	6
Policy landscape	6
Rio Tuba nickel mine	7
Philippines supply chains	7
Human rights and environmental impacts	9
Indonesia	
Policy landscape	11
EV supply chain from Indonesia	13
Human rights and environmental impacts	15
Conclusion	18
Recommendations	19



Executive summary

As the urgency to respond to the climate crisis grows, shifting to renewable forms of energy is imperative. However, to realise a just, global transition to renewable energy, this process must be human rights centred. The extraction of nickel, one of the essential components of electric vehicle (EV) batteries, is a particular area of concern.

This briefing provides an overview of two critical nickel supply chains in Southeast Asia which feed into the production of EVs: the Rio Tuba Nickel Mining Corporation (Rio Tuba) in the Philippines and two Chinese companies, Zhejiang Huayou Cobalt (ZHC) and CNGR Advanced Materials (CNGR) operating in Indonesia. These examples illustrate the rising incidents of human and environmental rights violations associated with these supply chains, as well as the need for increased government regulation and more robust human rights due diligence and engagement by mining companies, the EV companies depending on these minerals and the investors in both types of firms.

Key findings

Philippines

Nickel ore is extracted at the Rio Tuba mine on the island of Palawan, Philippines and is processed locally at the Coral Bay Nickel Corporation (Coral Bay) processing plant. The processed nickel from Coral Bay is shipped to Japan for further refining. Ultimately, high quality nickel hydroxide, used in the manufacturing of cathodes, will come out of the Isoura Plant owned by Sumitomo Metal Mining (Sumitomo MM). Sumitomo MM produces battery materials which are sold to Panasonic Corporation (Panasonic), which in turn manufactures EV batteries used by EV companies such as **Tesla** and **Toyota**.

Rio Tuba's mining operations reportedly have direct negative effects on the health and welfare of local communities. Critically, groups have raised concerns over lack of free, prior and informed consent (FPIC) of local communities and Indigenous Peoples, loss of food security and destruction of the surrounding rainforests. Environmental groups have also raised concerns regarding water contamination due to mining in the area.

Indonesia

Nickel ore is processed in two main industrial parks in Indonesia: the Indonesia Morowali Industrial Park (PT IMIP) in Central Sulawesi province and the Indonesia Weda Bay Industrial Park (PT IWIP) on Halmahera Island in North Maluku province. Nickel ore is processed to make battery-grade nickel for Chinese suppliers Zhejiang Huayou Cobalt (ZHC) and CNGR Advanced Materials (CNGR), which have entered into purchasing contracts with EV companies.

CNGR's business agreements in PT IMIP have allegedly indirectly affected the lives, health and environment of residents in Morowali, Central Sulawesi. Residents of a fishing village often complain of respiratory problems, while their means of livelihood have become increasingly constrained. The mining operations have also caused environmental problems, such as the destruction of forests, water pollution and detrimental effects on marine life.

ZHC's business operations are also purported to have put lives at risk in East Luwu, South Sulawesi and Pomalaa, Southeast Sulawesi. This includes several instances of water pollution, alleged taking of agricultural land and Indigenous land and criminalisation of activists and Indigenous Peoples. ZHC's investment in PT IWIP has reportedly caused similar human rights and environmental impacts, such as the pollution of four rivers and coastal areas, severe flooding and the taking over of residents' land.

Key recommendations

Recommendations to mining companies:

- Set a clear and urgent goal to implement human rights and environmental due diligence in operations and supply chains, alongside access to remedy, with special emphasis on land and Indigenous rights risks.
- 3 Respect Indigenous Peoples' land and forest rights and the right to Free, Prior, and Informed Consent (FPIC), including their right to define the process by which FPIC is achieved and to withhold consent.

Recommendations to EV companies:

- (9) Implement human rights due diligence processes throughout the business cycle, built on worker and community engagement that is safe and inclusive. This must include adopting and effectively communicating zero-tolerance policies for the abuse of communities, workers and human rights defenders, including labour rights activists and Indigenous land and environmental defenders. Guarantees of protection and non-retaliation for participants in these processes must be provided.
- Respect and publicly report on implementation of principles of FPIC to obtain community consent prior to taking investment and operational decisions; and ensure communities and workers are well-advised of these processes and they are accessible, culturally appropriate, safe and effective.

Recommendations to investors:

- (a) Commit to rights-respecting investments by undertaking and promoting analysis consistent with the UN Guiding Principles for Business and Human Rights (UNGPs) for all transition minerals mining and renewable energy investments.
- Evaluate impacts of investee companies on people and the planet, rather than solely focusing on financial materiality.

Recommendation to governments:

Adopt national laws to implement the UNGPs, including legislation mandating rigorous human rights and environmental due diligence throughout the transition mineral lifecycle and subsequent supply chain, and based on effective community consultation.

Introduction

As the urgency to respond to the climate crisis grows, shifting to renewable forms of energy is imperative. Climate change is the ultimate risk to human rights. "Going green" is therefore non-negotiable. But it is essential this process is human rights-centred, from mineral extraction right through the renewable energy supply chain, to realise a just, global transition to renewable energy. Closer examination of carbon neutral solutions and the renewable energy supply chains - in particular, the procurement of material components for renewable energy products - reveals endemic and highly damaging impacts on ecosystems and communities. These must be interrogated and mitigated if a just transition to renewable energy is to be achieved.

Analysis of electric vehicle (EV) supply chains provides an instructive lens on this issue. Massive investments in decarbonised public transportation are critical to decreasing global carbon emissions: 8% comes from individual fuel-powered cars. Part of this shift will also require replacing them with fewer EVs. EV supply chains are not exempt from human rights and environmental risks, impacts and emissions. Extraction of nickel, one of the essential components of EV batteries, is a particular area of concern.

Given the exponential increase in the automobile market share of EVs as a result of incentives introduced in the United States, European Union (EU) and China, as well as rising oil prices, demand for EVs is set to continue to rise over the coming years. In fact, the market for their core component — the battery — is expected to grow from US\$17 billion to more than US\$95 billion between 2019 and 2028 globally. Vehicle and battery manufacturers will both drive and benefit from this expansion. Their responsibility to respect human rights, as set out in the United Nations Guiding Principles on Business and Human Rights (UNGPs), therefore extends to their entire value chains. Mapping and scrutinising their mineral supply chains should be at the heart of their due diligence: they need to understand the conditions in which key minerals used in EV batteries are extracted - and then use their leverage and engage with the companies behind the extraction to ensure robust respect for human rights.

This briefing provides an overview of two critical nickel supply chains in Southeast Asia which feed into the production of EVs: the Rio Tuba Nickel Mining Corporation (Rio Tuba) in the Philippines and two Chinese companies, Zhejiang Huayou Cobalt (ZHC) and CNGR Advanced Materials (CNGR) operating in Indonesia.

These examples and the policy frameworks in which they operate, illustrate the rising incidents of human and environmental rights violations associated with these supply chains, as well as the need for increased government regulation and more robust human rights due diligence and engagement by mining companies, the EV companies which depend on these minerals, and the investors in both types of firms. Analysis of these examples provides a useful lens through which to view the risks and opportunities of the energy transition globally.



Policy landscape

Mining in the Philippines is governed by the Mining Act of 1995, which contains incentives to support the mining industry. It also limits mining operations to qualified persons or companies with at least 60% of its capital owned by citizens of the Philippines. However, foreign companies can be granted exploration and mineral processing permits, as well as financial or technical assistance agreements.

On the 28th anniversary of the Philippine Mining Act, farmers and environmental groups held a protest against the law in front of the Department of Environment and Natural Resources. <u>Groups expressed</u> concern about the law allowing the plunder of the country's natural resources, destruction of the environment and displacement farmers and Indigenous peoples. Sixty percent of the country's mineral deposits and 49% of its <u>mining projects are found in ancestral domains</u>, which are areas protected by the Philippines' <u>Indigenous Peoples Rights Act</u> (IPRA). The law requires the FPIC of Indigenous Peoples before approval of any project or activity affecting their ancestral domains.

Civil society groups are calling for the <u>passage of the Alternative Minerals Management Bill</u> (AMMB), which will balance the need for minerals with environmental, social and economic considerations. The AMBB features an exhaustive list of no-go mining zones, as well as places power in the hands of communities and local government units to approve projects affecting their areas.

With the <u>global demand for nickel growing</u>, exports of the mineral from the Philippines are expected to surge. In general, the value of the country's metallic mineral production <u>rose by nearly a third last year</u>. Nickel <u>took the lion's share</u> (49%) of the total production value with US\$2.12 billion. Minerals from the Philippines are mostly exported without processing. Hence, the Philippine Government is considering <u>taxes on nickel exports</u> to encourage investment in domestic processing plants and add value to the mineral product.



Rio Tuba nickel mine

Rio Tuba is a Filipino and Japanese mining project producing nickel and cobalt sulphite ores extracted from open pit mines. The mine produced more than 46,000 tonnes of nickel in 2021.

Rio Tuba operates in Bataraza, a municipal coastal town located in southernmost tip of the island of Palawan in the Philippines. It is home to protected landscapes and animals, such as the endemic saltwater crocodile (crocodylus porosus). The area is also home to many Pala'wan Indigenous Peoples. Palawan island is known as the Philippines' "last biodiversity frontier", having the country's few remaining old growth forests and endemic wildlife.

Rio Tuba has been in operation for over 30 years. Exploration began in 1969 and the mining operations commenced in 1977. The mine will continue to operate until 2028.

Philippines supply chains

The nickel in this supply chain starts on the island of Palawan in the Philippines, goes to Japan and ends with EV companies as necessary battery components. The companies involved, especially at the extraction and processing phases, are very much related, having common shareholders. Numerous allegations of human rights and environmental abuses have impacted local communities and areas located around the nickel mining and processing operations.

Nickel ore extracted at the **Rio Tuba** mine is processed locally at the **Coral Bay** processing plant. The processed nickel from Coral Bay is shipped to Japan for further refining. Ultimately, high quality nickel hydroxide, used in the manufacturing of cathodes, will come out of the Isoura Plant owned by Sumitomo MM, part of Japanese industrial conglomerate **Sumitomo**.

Sumitomo MM produces battery materials sold to Panasonic, which in turn, manufactures EV batteries. Panasonic had been using the mixed metal oxides to manufacture cylindrical lithium-ion rechargeable batteries. In 2021, Sumitomo MM invested US\$424 million to expand its cathode manufacturing capacity in Japan. Panasonic remains Tesla's longstanding and principal battery manufacturer; it was also a key investor in the foundation of Tesla.

Sumitomo MM is also reportedly expanding its cathode production, where a portion of its capital expenditure will be used to increase cathode materials for rechargeable batteries specifically for EVs. It projects to produce 10,000 metric tonnes by 2028 and 15,000 metric tonnes by 2031.

As recently as July 2022, Panasonic announced its intention to build a second factory in Kansas, USA. Its first factory, known as the Gigafactory, is operated in partnership with Tesla in Sparks, Nevada. It is one of the largest lithium-ion battery factories in the world. Panasonic has announced its development of a higher capacity EV for Tesla, which is slated for production by March 2024. In fact, Panasonic has maintained its market share in the lithium-ion battery market almost exclusively through its relationship with Tesla.

For its part, **Tesla** made a plea to mining companies to mine more nickel. According to **Tesla**'s 2021 Impact Report, it now applies direct sourcing of its materials from mining companies to do away with reliance on "multiple midstream companies". It is reported to have sourced over 95% of lithium hydroxide, over 50% of cobalt and over 30% of nickel directly from nine mining and chemicals companies, including ZHC and CNGR. However, their 2021 Impact Report notes that cobalt, nickel and lithium go through multiple processing steps by different companies. Nickel from Rio Tuba is also used by Toyota.

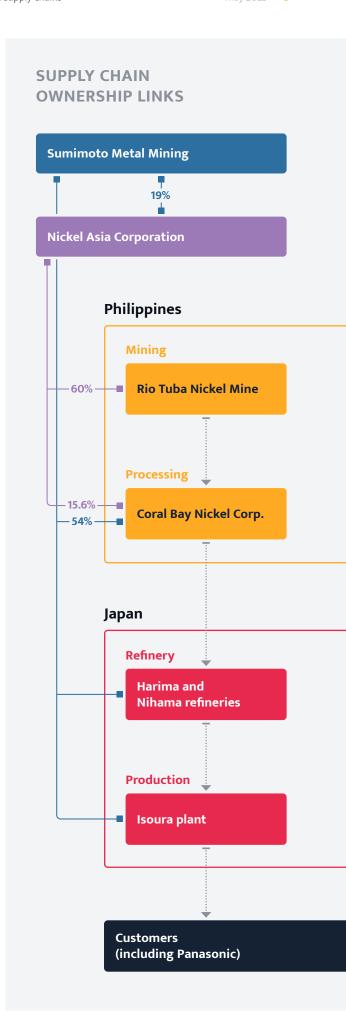
Ownership structure of companies

The companies involved in this supply chain from the Philippines are closely linked. Rio Tuba's main shareholder is Nickel Asia Corporation (Nickel Asia) holding a stake of 60%. Approximately 19% of Nickel Asia is owned by Sumitomo MM.

Nickel Asia's historical shipment of nickel ore has been on a continuous upward trend since its establishment in the 1970s. In fact, during the height of the COVID-19 pandemic, when most businesses were suffering losses in the Philippines, **Nickel Asia**'s profits rose by 41%. In 2021, it reported a 168% increase in net income. By 2022, global nickel prices went up by more than 35%.

Coral Bay is also partly owned by Sumitomo MM, Mitsui and Co, Sojitz and Nickel Asia, with Sumitomo MM as majority shareholder. In October 2022, Nickel Asia bought 33 million common shares of Coral Bay from **Sumitomo MM** for US\$25.94 million, increasing its stake in **Coral Bay** from 10% to nearly 16%.

The **Sumitomo** conglomerate and **Panasonic** have intricate ties. An independent, but related, general financing entity was established between the Sumitomo Mitsui Trust Bank Ltd (85%) and the **Panasonic Holdings Corporation** (15%) resulting in the Sumitomo Mitsui Trust Panasonic Finance.



Human rights and environmental impacts

The Philippines is the most dangerous place in Southeast Asia for human rights defenders (HRDs) challenging corporate activities, according to the Resource Centre's database of HRD attacks. The Resource Centre has recorded 303 attacks against HRDs in the Philippines (out of 916 in Southeast Asia) from January 2015 – October 2022. Of these attacks, 70% were against land, environmental and climate defenders. The mining sector is consistently the most dangerous sector for HRDs raising concerns about abuse.

For the Indigenous Palawan tribe and residents, the supply of nickel extracted from the **Rio Tuba** mine, which is eventually used by EV companies as battery components, has increasingly put their community and environment at risk.

Rio Tuba's mining operations have reportedly had direct negative effects on the health and welfare of affected communities. Environmental groups have raised concerns regarding water contamination due to mining in the area. Among other issues raised was the lack of FPIC of local communities and Indigenous Peoples, loss of food security and the destruction of surrounding rainforests.

Reports of coughs and respiratory diseases, as well as skin lesions on residents, prompted water quality tests for areas surrounding the mine site. Tests by Friends of the Earth (FoE) Japan covered the period from 2009 to 2019. Each year, the hexavalent chromium in the Togpon River, one of the sampling sites, was greater than 0.05 milligrams per litre (mg/L) – a limit set by the World Health Organization. Hexavalent chromium is a listed human carcinogen. According to the US Occupational Safety and Health Administration, repeated exposure to hexavalent chromium can cause a number of respiratory conditions, including asthma, bronchitis, itching, lung cancer and physical trauma to the respiratory tract.

Togpon is the only river with tributaries <u>flowing out from the mine development area</u> and into the Rio Tuba inlet. Further tests conducted by the Philippine Center for Investigative Journalism in 2021 confirmed FoE Japan's findings.

According to Shigeru Tanaka, Director of Tokyo-based Pacific Asia Resource Center (PARC), who also works with FoE Japan, the unsafe levels of hexavalent chromium were always detected during the rainy season. This leads him to believe the rainwater dissolves hexavalent chromium from the ore stockpile or from the ground and causes it to flow down the river.

A representative for **Rio Tuba** stated the company had been monitoring the hexavalent chromium levels since 2012 and noted the level of hexavalent chromium in the area was historically high. Despite mitigating measures by the company, there are still observed exceedances.

In its response to the Resource Centre, Sumitomo MM added that Coral Bay "...has also implemented sample surveys on water quality, air quality and flora and fauna on a regular basis through a Multiple Monitoring Team composed of government, local authorities and NGOs since it commenced operations in 2005." Coral Bay confirms, through these environment monitoring activities, "that construction and operation of smelting and refining plants have no serious impacts on the ecosystem and minimises the environmental impact of effluent and other such things."



Sumitomo MM further explained **Coral Bay** is working on a Social Development and Management Program, which includes free health check-ups and treatment for residents. **Sumitomo MM** added that the company has a very close relationship with the local community in terms of health and treatment and stated there have been no local cases of residents complaining of the alleged health issues. Coral Bay has also enacted measures which include support for agriculture and has undertaken to implement greening activities for the surrounding areas and tailings dams.

There have also been reports of several irregularities in obtaining Indigenous Peoples' FPIC. The memorandum of understanding (MOU), which memorialises the principle of FPIC, was signed by a tribal chieftain who was externally appointed by the National Commission on Indigenous Peoples. The MOU was signed without going through the traditional decision-making process, which is led by Panglima, a hereditary leader. Moreover, the Environmental Impact Statement submitted to the Government included a document containing signatures of affected residents, which purportedly shows their consent. However, those signatures were allegedly lifted from signatures provided by residents attending consultation meetings. Those residents were not informed their signatures would be used as proof of consent.

However, **Sumitomo MM** maintains **Rio Tuba** has had <u>continuous dialogue and engagement with the Indigenous</u> cultural communities of Rizal, which generated positive support towards mining activities and operations. **Sumitomo MM**'s full response can be accessed <u>here</u>.

Panasonic, in its response to the Resource Centre, stated the company strives to conduct its business with suppliers in a way that fulfils its social responsibility in areas such as human rights and responsible employment, occupational health and safety, environmental conservation and information security.

The Resource Centre also invited Nickel Asia (of which Rio Tuba is a subsidiary), Toyota and Tesla to respond to the reports alleging human rights and environmental violations of sourcing nickel in Rio Tuba, Palawan. They did not respond.

In the Philippines, the type of nickel available is found just below vegetation and the thin topsoil. The mining process is therefore undertaken horizontally, destroying the vegetation above the nickel. Driven by high market demand, increase in nickel mining will translate to rapid deforestation — at a rate no reforestation programme will be able to compensate. Deforestation will lead to adverse consequences for the food production capacity of both Indigenous and migrant farmer communities.

Disregard of the link between supposedly "green" EVs and the ecological destruction wrought by the mining of transition minerals, such as nickel, is negligent at best. At worst, it is active participation in greenwashing. The Philippines' Mines and Geosciences Bureau (MGB), under its Department of Environment and Natural Resources, projects 190 new mining projects could be granted approval in the next four years, a third of which will be nickel. Of the projected mining projects, 40% will be open pit, mostly those mining for nickel.

Proponents of the mining industry argue trade-offs must be made, given the needs fulfilled by the mining industry. Figures show mining has minimal economic benefits for the Philippines, accounting for less than 1% of the country's GDP (PSA 2021), and in the case of Rio Tuba, most ore extracted goes overseas, contributing nothing to national industrialisation. It is a trade-off which is seemingly at odds with the notion of a just transition, especially considering the social and environmental costs of extraction recorded to date.



Policy landscape

Through a series of policies implemented from 2009 to 2019, Indonesia has progressively <u>banned the export</u> of nickel ore, requiring companies to process nickel domestically before export. The ban <u>aimes to bolster</u> <u>Indonesia's domestic processing</u> to bring back the added value of the nickel supply chain to the local economy and create jobs for economic development in Indonesia. The export ban was challenged by the EU at the World Trade Organization (WTO), arguing the ban "restricts the EU access to raw materials needed for stainless steel production and distorts world market prices of ores." The <u>WTO ruled in favour of the EU</u>.

Indonesia's new Mining Law (an amendment to the 2009 Law on Coal and Mineral Mining), which entered into force in June 2020, was highly <u>criticised</u> by civil society as it offers bigger concessions and longer contracts for companies, while placing fewer human rights and environmental obligations on them. According to human rights organisation WALHI, the law, particularly Article 162, has been used to criminalise human rights and environmental defenders. <u>WALHI</u> found that "of the 53 people subjected to criminal charges for opposing mining companies in 2021, at least 10 were charged with violating Article 162."

In 2019, with the objective of accelerating its transition to renewable energy, the Indonesian Government proposed a bill on new and renewable energy, which is currently being deliberated in Parliament. The bill, as it stands, includes both "renewable" and "new" energy sources. <u>Critics say</u> the inclusion of "new energy" will prolong the transition to clean energy as they include coal-based products, such as liquefied coal and gasified coal.

In November 2022, at the G20 Summit, the Indonesian Government <u>launched two energy transition initiatives</u>: the Energy Transition Mechanism (ETM) and Just Energy Transition Partnership (JETP). Indonesia is the second country, after South Africa, to benefit from a JETP that provides a global <u>financing commitment of US\$20 billion</u> over the next three to five years. The ETM, on the other hand, is expected to allocate US\$ 500 million funds and mobilise more than US\$4 billion. Described as the single largest country-specific climate investment partnership ever, this JETP will go toward developing renewable energy, such as solar and geothermal, and phasing out fossil fuels, including shutting down coal-fired power plants, which currently account for the majority of the country's energy mix. Indonesia aims for 23% of its energy to come from renewable sources by 2025.



The JETP also aims to improve the business climate in Indonesia by building infrastructure for renewables and improving financing for sustainable projects. The Indonesian Government is paying attention to areas like EVs and their batteries as new sectors for economic growth.

Launched in February 2023, the JETP Secretariat will spend the next six months developing a coal-fired power plant early retirement roadmap that will consider support for communities affected by the energy transition. The recent announcement by the Indonesian Ministry of Energy and Mineral Resources of its <u>intention</u> to integrate fossil gas power plants into the JETP funding scheme has sparked concerns over the JETP's ability to assist Indonesia in accelerating its energy transition. Limited civil society participation in the JETP Secretariat is also considered a critical shortcoming of the implementation plan.

According to the International Energy Agency, Indonesia alone will account for around half of the world's growth in nickel production between 2021 and 2025. Melky Nahar, coordinator of the Mining Advocacy Network (JATAM), a local non-governmental organisation, believes foreign companies, such as those from China, are attracted to investing in Indonesia due to its weak environmental regulations. There are no provisions in current policy which act as deterrents for corporate crimes. He adds: "The excuse of the companies and governments in continuing to promote electric cars as crucial to the global competition against climate change, which is supported by many NGOs and activist groups, especially in the 'Global North', ignores the negative impacts of mineral and ore extraction required to produce such a car, [which are] simply referred to as a 'local' impact..."





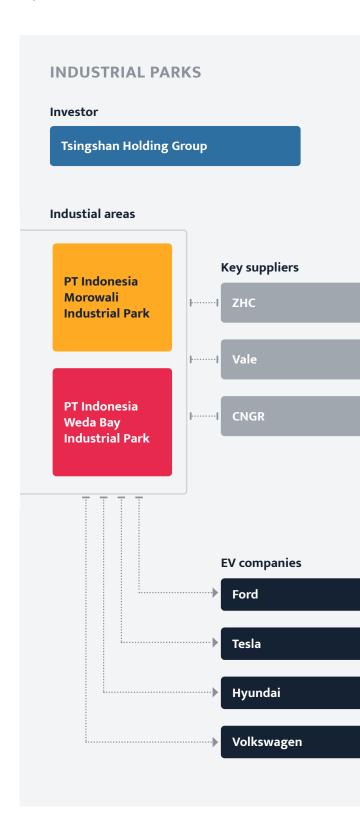
EV supply chain from Indonesia

With the ban on nickel ore exports, the <u>Indonesian Government also hoped the policy would attract foreign</u> investment into the domestic production and processing sector. So far, Chinese companies are leading the way, investing around US\$30 billion in the Indonesian nickel supply chain, which poured money into industrial parks such as the Indonesia Morowali Industrial Park (IMIP) in Central Sulawesi province and the Indonesia Weda Bay Industrial Park (IWIP) on Halmahera Island in North Maluku province.

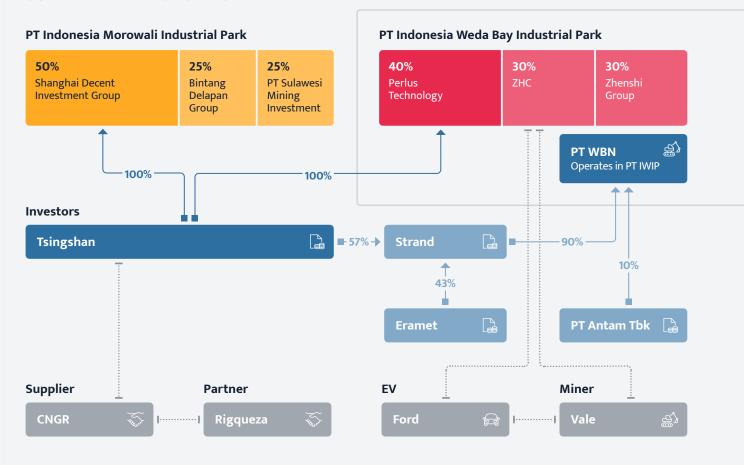
In these industrial parks, <u>nickel ore is processed to make</u> battery-grade nickel for Chinese conglomerates which, in turn, supply batteries to EV companies. ZHC and CNGR are two of these nickel suppliers, which have entered into purchasing contracts with EV companies.

ZHC is engaged in the research, development and manufacture of new energy lithium battery materials, headquartered in Tongxiang Economic Development Zone, Zhejiang, China. On the other hand, **CNGR** is a professional and comprehensive service provider of advanced energy materials for lithium batteries and is based in West China, Dalong Economic Development Zone, Guizhou.

Tesla signed nickel purchasing agreements with **ZHC** and **CNGR**, two of its existing Chinese battery material suppliers, worth around US\$5 billion. Tesla will be supplied by **ZHC** from 1 July 2022 to the end of 2025 and by **CNGR** from 2023 to 2025. These agreements are for supplying essential materials in electricity storage in lithium-ion batteries. Ford, on the other hand, joined **ZHC** and Brazilian **Pomalaa**, Southeast Sulawesi. The processing plant will produce 120,000 tons of materials for use in EV batteries per year. Other vehicle companies allegedly sourcing battery-related nickel products from Indonesia include Volkswagen, BMW and Hyundai.



SUPPLIER RELATIONSHIPS



PT IMIP is an industrial park founded by **Tsingshan** and Indonesian miner **Bintang Delapan Group** (Indonesia). Tsingshan, through its subsidiary, Shanghai Decent Investment Group, owns 50% of PT IMIP, with Bintang Delapan Group and PT Sulawesi Mining Investment each owning 25%.

PT IWIP is a joint venture between Tsingshan (40% shareholding through its subsidiary, Perlus Technology), **ZHC** (30% shareholding) and the **Zhenshi Group** (30% shareholding). **Tsingshan** has several investments in IWIP, including one with ZHC and another with mining company, PT Weda Bay Nickel (WBN). PT WBN is partly owned by Indonesian state-owned company PT Antam Tbk (10% shareholdings) and Strand Minerals, which is owned by **Tsingshan** (57% shareholdings) and French miner, **Eramet** (43% shareholdings). **Eramet** is reported to have partnered with German chemical giant BASF to build a refinery in Halmahera.

ZHC has an agreement with Vale to develop a High-Pressure Acid Leaching (HPAL) processing project in Pomalaa, Kolaka, Southeast Sulawesi, where Vale operates a nickel mine. ZHC's projects with Vale are estimated to cost US\$6.3 billion. Ford joined both companies to produce battery-related materials.

CNGR has ties with Tsingshan to supply up to 40,000 tonnes of nickel products. CNGR also invested with **Rigqueza** for two nickel matte projects in Sulawesi, with an annual capacity to supply up to 60,000 tonnes. These two companies further agreed to jointly invest in three projects in Weda Bay to produce nickel matte in North Maluku. To meet the increasing demand for battery-related nickel products, CNGR aims to increase annual capacity by 120,000 tons.

Human rights and environmental impacts

CNGR, PT IMIP, ZHC and Vale have been implicated in human rights and environmental abuse allegations related to their nickel extraction and processing activities.

CNGR's business agreements have indirectly affected the lives, health and environment of residents in Morowali, Central Sulawesi. Residents of a fishing village often complain of respiratory problems which they suspect are caused by inhaling dust from the coal unloaded from barges to supply PT IMIP's power plants. **PT IMIP** significantly relies on coal-fired power plants for its electricity.

Fishing, the profession of the majority of the residents, has been severely affected. In the past, it was easy for fisherfolk to catch a variety of fish just by spreading nets behind their houses or around the area. Now, the sea water has become too hot to the point it is "almost boiling", driving away fish or killing them. Rising sea water temperature is a consequence of the cooling system exhaust from coal-fired power plants in PT IMIP.

PT IMIP's activities have also allegedly also caused other environmental problems, particularly in the coastal district of Bahodopi, Central Sulawesi. Nickel mining operations are destroying forests. Brick-red mine tailings spill into rivers and streams, contaminating waters that run through villages. Polluted water has also made its way to the sea, affecting a rich diversity of coral species.

Meanwhile, ZHC and Vale's business transactions have also allegedly risked the lives of residents in East Luwu, South Sulawesi and Pomalaa, Southeast Sulawesi. In 2014, Vale had an oil spill which polluted the Lampia Sea. In 2018, sedimentation of ex-mining soil also polluted Lake Mahalona. In August 2021, Vale's operations also polluted the waters of Mori Island. Vale was also linked to taking over agricultural land and Indigenous land in Nuha District, East Luwu in 2016 and alleged to have criminalised seven activists and Indigenous people in March 2022 when they held a demonstration demanding Vale's accountability for mining on Indigenous Peoples' land. In terms of attacks against HRDs raising concerns about business, Indonesia is the third most dangerous country in Southeast Asia with 132 attacks recorded between January 2015 and October 2022.

ZHC and **Tsingshan**'s investment in **PT IWIP** has been reported to have caused similar human rights and environmental impacts. PT IWIP is alleged to have taken over the land of Lelilef Sawai residents, which is a community garden planted with nutmeg, cloves, coconut and lanzones. Their investment has also led to the pollution of four rivers which are the main water sources for residents, namely Ake Wosia, Ake Sake, Seslewe Sini and Kobe. Coastal and marine areas in Weda were also affected. The dam holding PT IWIP's waste in Lelilef Village collapsed and allegedly spilled into the sea on 30 January 2022. Fisherfolk, particularly women, are also experiencing challenges in fishing in the Lolaro Sea as a result of the pollution from the mining waste. PT IWIP's mining activities in the forest area have also caused severe flooding every year, the worst of which happened on 8 September 2021, when residents' houses were submerged in Lelilef Woybulen and Trans Kobe in Central Weda District.

Responding to the Resource Centre, ZHC stated it was committed to reducing the impact of its operations and supporting the local economies, communities and environments where it operates. ZHC's full response can be accessed here.

Vale responded by addressing the allegations point by point:

- On the alleged oil spill at the Lampia Sea, Vale explained there was no major impact as the amount of oil involved was marginal and the spill was immediately contained by oil boom.
- On the alleged pollution in Mahalona lake, Vale claimed the Ministry of Environment and Forestry carried out an assessment into the alleged sedimentation and found no violations.
- With regard to Mori Island, Vale explained it engaged an independent and accredited third party to follow up on the alleged sulphur spill contamination and based on results of the analysis of water and soil samples, it was concluded there was no pollution as per data received on 20 September 2021.
- On the alleged taking of agricultural land and Indigenous land, Vale claims there are no Indigenous Peoples in its operational area, based on the latest study conducted in Luwu Timur by a reputable institution in Indonesia and consultation with the local government.
- (a) Finally, on the alleged criminalisation of seven activists and Indigenous People in relation to a demonstration, Vale explained "the demonstration in March 2022 caused injuries to PT Vale's employee and contractor, and destruction to assets. Police investigation was conducted as there was anarchism during the demonstration."

Vale's full response can be accessed <u>here</u>.

Lastly, nickel mining activities of Weda Bay Nickel (WBN), a joint venture partly owned by Eramet, have affected huge areas of rainforest in Halmahera inhabited by an uncontacted tribe called the Hongana Manyawa (which means "People of the Forest"). The Hongana Manyawa are one of the last nomadic hunter-gatherer tribes in Indonesia. Mining in their lands is illegal under international law as uncontacted tribes cannot give FPIC to the exploitation of their land. BASF, the German chemical firm, is looking to partner with Eramet to build a refinery in Halmahera with unquestionable further consequences for the Indigenous rights of the Hongana Manyawa.

In its <u>response</u> to the Resource Centre, **Eramet** confirmed it currently runs the feasibility studies, in partnership with BASF, to develop a plant to process nickel and cobalt, known as the Sonic Bay Project, which is intended to be located on the central coastal region of Halmahera Island. Eramet also confirmed the Hongana Manyawa people, also called the Forest Tobelo people, live on certain parts of the island. However, Eramet asserts WBN has succeeded over the years in developing respectful interactions with Forest Tobelos. Eramet further claims that "to date, there is no evidence suggesting that there would be uncontacted Forest Tobelo living in or around WBN's concession."

BASF confirmed it is <u>currently evaluating</u> an investment with **Eramet** for the development of a nickel-cobalt refining complex to supply the growing EV market with cathode active materials. However, BASF has not yet decided whether this project will be implemented. BASF further states part of its evaluation process is …an intensive assessment of environmental, social and governance (ESG) risks against the benchmark of the International Finance Corporation (IFC) standards, the Equator Principles and the International Responsible Mining Assurance (IRMA) standard, as reasonably applicable to the mining and processing companies involved."

Tesla and the **Tsingshan Group** were invited by the Resource Centre to respond on the issue concerning the Hongana Manyawa along with **Eramet** and **BASF**. They did not respond.

upheld and that our global sustainability and compliance standards are fulfilled..."

As one of the alleged buyers of nickel from Indonesia, **Volkswagen** expressed: "...We are concerned about the report by Nikkei Asia on nickel sourcing in Indonesia published 19 October 2022 which we take very seriously..." It further stated "the joint venture project of Volkswagen quoted in the Nikkei Asia article is subject to ongoing negotiation and not approved yet. Prior to any engagement Volkswagen will make sure that our values are

Mercedes-Benz clarified it "...is currently not intending to source Nickel directly from Indonesia, but is monitoring the worldwide market situation." Mercedes-Benz added: "In the case of a potential consideration of direct sourcing from Indonesia in the future, the Responsible Sourcing Standards would be taken into consideration accordingly."

BMW, on the other hand, <u>explained</u> it "...does not have any direct supply relationships or cooperations with nickel suppliers in Indonesia." BMW added: "In accordance with our purchasing conditions, as direct suppliers they are obligated to comply with legal requirements and extensive environmental and social standards and must also pass these on to their sub-suppliers."

Along with Volkswagen, Mercedes-Benz and BMW, the Resource Centre invited "project owners", Aneka Tambang, CMOC Group Limited, GEM Co. Ltd., Harita Group, Indonesia Battery Corp., Merdeka Copper Gold, Ningbo Lygend Mining and QMB New Energy Materials; as well as "off-takers" Hyundai Motor to respond to environmental and human rights allegations. The companies did not respond.





Conclusion

The current condition highlights the need to revamp policies which relate to natural resources and enable their continued exploitation. For one, biodiversity loss in Palawan has illustrated how business as usual mining practices and levels are no longer sustainable.

Second, often those whose habitats are destroyed are not able to benefit from the resource exploitation. Nor do they approve of these projects which threaten their lifeways and result in the violation of their rights. In the case of **Rio Tuba**, it has been decades since local communities have protested against its operations. The tensions have only intensified. Indigenous Pala'wans are worried over the looming expansion of Rio Tuba in Mt. Bulanjao. The forest ecosystem and river network that intersect Mt. Bulanjao link various Pala'wan communities where people are concerned about losing their source of water, which is the lifeline of Indigenous and farming communities.

The same worries weigh heavy on the minds of fisherfolk and communities impacted by mining operations in Indonesia's industrial zones. Pollution has plagued their waters, affected their health and changed their means of livelihood. Progress in the supply of nickel from Indonesia, if unchecked, will increasingly impact the lives of residents, including Indigenous Peoples.

Governments have a duty to ensure protection of rights in this global transition to EVs. Protection can be achieved by strict implementation of community and environmental safeguards. On the other hand, EV companies and investors have the responsibility to make sure rights are respected in all levels of their supply chains, with particular emphasis on the mining and processing levels.





Recommendations

Recommendations to mining companies:

- 3 Set a clear and urgent goal to implement human rights and environmental due diligence in operations and supply chains, alongside access to remedy, with special emphasis on land and Indigenous rights risks.
- Respect Indigenous Peoples' land and forest rights and the right to Free, Prior, and Informed Consent (FPIC), including their right to define the process by which FPIC is achieved and to withhold consent.
- Work to the international standards of the United Nations Guiding Principles on Business and Human Rights (UNGPs). Ensure the approach is proactive and consults those at risk of abuse and their representatives, in accordance with the UN Working Group's guidance on ensuring respect for human rights defenders (HRDs). Reinforce related goals with a time-bound plan, resourcing commensurate to ambition, executive oversight and board approval.

Recommendations to EV companies:

- (9) Implement human rights due diligence processes throughout the business cycle, built on worker and community engagement that is safe and inclusive: adopt and effectively communicate zero-tolerance policies for abuse of communities, workers and HRDs, including labour rights activists and Indigenous, land and environmental defenders, and provide guarantees of protection and non-retaliation for participants in these processes.
- Assign clear Board responsibility for and oversight of respect of human and environmental rights. The Board should approve policies and regularly reviews salient human and environmental rights abuse allegations, due diligence plans and remedy outcomes.
- Respect and publicly report on implementation of principles of FPIC to obtain community consent prior to taking investment and operational decisions. Ensure communities and workers are well-advised of these processes and that they are accessible, culturally appropriate, safe and effective.

Recommendations to investors:

- Commit to rights-respecting investments: undertake and promote analysis consistent with the UNGPs for all transition minerals mining and renewable energy investments. Evaluate impacts of investee companies on people and the planet, rather than solely focusing on financial materiality.
- Actively engage with investee companies: adopt stewardship policies and develop and implement plans to proactively prevent and mitigate human rights and environmental risks and related costly conflict, alongside reputational, legal and regulatory risks.
- (a) Integrate sustainability into fiduciary duty through inclusive human rights and environmental due diligence: throughout the business cycle, undertake due diligence and engagement with worker organisations and communities, including reviewing potential investees' up-to-date record of environmental harm and human rights abuse.

Recommendations to governments:

- Pass national laws to implement the UNGPs, including legislation mandating rigorous human rights and environmental due diligence throughout the transition mineral lifecycle and based on effective community consultation.
- 3 Adopt ambitious green policy and regulatory frameworks to direct foreign and domestic investment flows to responsible nickel suppliers, while protecting local communities and Indigenous Peoples' rights – with specific consideration given to land rights, FPIC and human rights defenders, including labour rights activists and Indigenous, land and environmental defenders.

Recommendations to governments in Philipines:

- 1 Investigate the alleged human rights and environmental abuse of Rio Tuba and, if evidence of abuse is found, hold them accountable, along with other companies in their value supply chain.
- Adopt the Alternative Minerals Management Bill and legislation to establish accountability mechanisms that cover not only mining companies, but others across the value chain.

Recommendations to governments in Indonesia:

- Enforce laws, particularly those ensuring that environmental quality standards are complied with, as well as those imposing sanctions on abusive companies.
- Implement Indonesia's JETP through rights-respecting programmes which aim to avoid and mitigate human rights and environmental risks in the development of renewable energy, including mining and processing of transition minerals for EVs and ensure meaningful participation of civil society in the implementation.
- (3) Stop nickel mining activities in essential ecosystem areas, such as forest and coastal areas, as well as in areas of community water sources, to prevent toxic pollution in accordance with Indonesia's existing regulations.
- Respect and protect affected communities' rights to health, land, food, livelihood and freedom expression.

