

THE HUMAN & ENVIRONMENTAL TOLL OF NICKEL MINING IN INDONESIA

THE CASE FOR EXCLUDING HARMFUL
SUPPLIERS FROM EV SUPPLY CHAINS

MAY 2026





Source: LSM Sagori/Sahrul Gelo

CONTENTS

EXECUTIVE SUMMARY	3
IMPACTS OF NICKEL MINING IN KABAENA	6
WHY IS THIS HAPPENING?	8
WHERE IS KABAENA'S DIRTY NICKEL GOING?	14
A CRITICAL MOMENT FOR KABAENA	18
RECOMMENDATIONS	20
CONCLUSION	22

EXECUTIVE SUMMARY

Kabaena, a small island off the coast of the southeast tip of Sulawesi, Indonesia, has been ravaged by irresponsible nickel mining, causing serious health impacts to the Bajau people, the last remaining sea nomads, that call the island home. Despite an Indonesian constitutional court ruling that banned mining on small islands in 2014, islands like Kabaena - which is rich in biodiverse forests, terrestrial and marine wildlife, and home to around 47,000 people - continue to be exploited for nickel, a precursor for stainless steel and an increasingly desirable mineral used in electric vehicle batteries.

Indonesian NGOs Satya Bumi, WALHI Southeast Sulawesi, and Sagori, have worked with communities on Kabaena to document and expose the grave human rights violations, deforestation and destruction of marine and terrestrial ecosystems taking place at the hands of the nickel mining industry.[1] Severe health impacts, revealed through surveys and interviews, and seafood and urine sampling, show the presence of metals like cadmium, lead and of course nickel in the ecosystem and diet of the Bajau people, which can lead to health problems like kidney and liver damage, cancer, neurological toxicity, cardiovascular toxicity, skin reactions and reproductive problems. In other words, nickel is in the water, food, air and bodies of Kabaena's residents.

On Kabaena, nickel mining started at a large scale 19 years ago. Since then, we know of four children that have drowned off the shores of Kabaena, having fallen in the polluted water with their parents unable to see and rescue them due to lack of visibility in the murky water. Historically, Bajau children have been taught to swim and dive from as young as two or three years old. Now, younger generations are not being taught to swim, as parents are concerned about their children swimming in the polluted water. In March 2025, another child drowned in the waters off Baliara village in Kabaena, as she had not been taught to swim and could not be seen by rescuers in the murky water.

The purpose of this briefing is three-fold:

1. The evidence of health impacts shows that Kabaena must be off limits for mining. The Constitutional Court in Indonesia ruled that small islands have special protection from mining and other dangerous activities that threaten the ecosystems of these vulnerable areas. The Bajau people need a clean-up of the island, access to healthcare, and compensation.
2. Kabaena illustrates the severe consequences of irresponsible mining; this report aims to show that failing to follow legal requirements and private sector guidelines will result in ecological disasters.
3. This report demonstrates a decisive way that downstream actors can assert their market power through strict and transparent sourcing strategies, including the suspension and exclusion of mining operations that violate human rights and cause immense environmental destruction.

Nickel from Kabaena's destructive mining industry is connected to well-known global auto companies including Ford, Volkswagen, BMW, Mercedes Benz, Stellantis, Volvo, Toyota, Tesla, Honda and GM – thoroughly undermining the green credentials that many of these companies are touting through their growing electric vehicle ranges. Kabaena's 14 concessions are listed as an "excellent resource" in Huayou Cobalt's profile report for its Pomalaa Industrial park (IPIP). IPIP includes a High Pressure Acid Leach (HPAL) plant – a joint venture between Ford, Vale Indonesia and Huayou Cobalt.

Ford, Vale, and Huayou have been directly informed of the violations and illegal activities on Kabaena and yet in subsequent communications, the companies have not been able to offer any clear and public commitments to suspend current or future business relations with nickel mining companies on the island. This severe lack of transparency and clarity from Ford, Vale, and Huayou leaves open the possibility that nickel linked to human rights and environmental abuses is entering their global supply chains.

We are at a critical moment to address the catastrophic issues happening in Kabaena. By ending all mining on Kabaena, we have an opportunity to prevent further damage to Kabaena's unique ecosystem and the people that depend on it. As smelting operations are rapidly expanding in the surrounding region, poised to process more nickel that will make its way into global EV and stainless steel supply chains, auto makers and stainless steel manufacturers must urgently look into their supply chains and ensure that they are not sourcing from Kabaena or other locations where similar violations to human rights and the environment are occurring.

The new HPAL facility in Pomalaa has an opportunity to learn from previous mistakes seen in Indonesia's industrial parks. Major industrial parks including PT Indonesia Morowali Industrial Park (IMIP) and PT Indonesia Weda Bay Industrial Park (IWIP) have been complicit in countless human rights and environmental violations caused directly by industrial operations, as well as their mineral sourcing. Through their joint venture in Pomalaa, scheduled to begin operations in 2026, Ford, Vale, and Huayou can demonstrate a stronger model by establishing rigorous environmental and social safeguards. These should include meaningful Free, Prior and Informed Consent (FPIC) with local communities, an absolute commitment to not using captive coal, and clear, enforceable sourcing requirements — including strict no-buy lists for fragile ecosystems such as Kabaena.

Kabaena is just one island where the destructive impacts of nickel mining are already being felt. Similar stories are unfolding across Indonesia. Despite countless examples of the catastrophic impacts of irresponsible mining and processing across Eastern Indonesia, auto companies are still silent.

This trajectory is not inevitable. Indonesia can build a nickel sector that is more responsible and far less damaging to people and the planet. But as long as companies further down the supply chain — including battery, EV and stainless steel manufacturers — continue to profit from “dirty nickel” and shield abusive suppliers, communities will suffer, ecosystems will collapse, and the energy transition will reproduce the same injustices it claims to end.

IMPACTS OF NICKEL MINING ON KABAENA



Nearly three quarters of Kabaena's total land area has been converted into mining concessions, with 15 companies currently having operational status. Many of these are situated close to areas where local communities and Indigenous Bajau tribes live, and some overlap with plantations. The land and coastline of Kabaena has long provided food, water and an income for the island's residents, with fishing and seaweed farming being a central source of food.

Residents from Baliara, Western Kabaena, report that before 2010, before Kabaena's nickel mining industry exploded, the coastal waters were crystal clear, abundant with sea life, including diverse species of seaweed, sea cucumber, fish and shellfish. Areas near Kabaena that have yet to be exploited for nickel, are breathtakingly beautiful. The larger area is known as the coral triangle for good reason, known as some of the best scuba diving in all of the world. Whilst it is difficult to find historic imagery of Kabaena's coastline before the nickel mining began, Figure 1 shows what a nearby area of coastline looks like, in an area that has not been adversely impacted by mining operations.

Due to waste runoff from nearby mines, the river and sea water around many villages in Kabaena, has turned from crystal clear blue to a murky brown. Figure 2 shows the stilted houses of Baliara village, sat above waters that are now contaminated with hazardous metals and sediment from a nearby nickel mine. Baliara is just one village that is home to the Bajau people, a nomadic Indigenous community that live on the sea, and traditionally use the surrounding marine ecosystem for survival.



Figure 1: Clear waters and white beaches in an area of Kabaena not polluted by mining. April 2024. Source: Satya Bumi



Figure 2: Brown waters off the coast of Kabaena, polluted by sediment from nearby nickel mines. April 2024. Source: Satya Bumi



Figure 3: Ilya checks on his dried fish at his house on Kabaena near nickel mines.
Source: AP/ Yusuf Wahil. November 2024.

THE BAJAU PEOPLE

The Bajau are considered the world’s last “sea nomads” and live across the Southeast Asia and Pacific islands and waters, including in the Philippines, Malaysia and Indonesia. Their culture is based around the ocean. They are renowned free divers that have evolved larger spleens and lung capacity, allowing them to stay below the surface of the water for up to 10 minutes on a single breath, foraging for sea cucumbers, seaweed, and other sea life to sustain their daily needs. Their unique way of life means that some Bajau are born and spend their entire life at sea, on traditional houseboats; in the case of the villages of Kabaena, they live on the shore or on stilted houses above the water and rely on the ocean for their sustenance and livelihoods. This way of life is disappearing; fewer Bajau than ever before live entirely at sea. Those who live on land are often still separated from other parts of society and are thus more vulnerable to changes in the climate and natural world – changes that threaten their survival and their culture.



Figure 4: Woman returns from fishing off the coast of Kabaena. November 2024.
Source: AP/ Yusuf Wahil.

TOXIC METALS IN THE WATER, FOOD, AIR AND BODIES OF KABAENA'S RESIDENTS

Numerous studies have documented the adverse health effects of metal exposure on human populations.[2] Metals such as lead, cadmium, and mercury are known to cause a wide range of health problems, including neurological disorders, cardiovascular diseases, and cancer.[3] Xenobiotic metals, such as mercury, cadmium, arsenic, and lead, pose serious risks to human health. Exposure to these metals can occur through inhalation via air pollutants and ingestion through food and drinking water.

A survey of Bajau communities living in Baliara and Pununnu villages, carried out by Indonesian NGO Satya Bumi, found that many people are suffering from acute skin diseases such as rashes and abscesses, with children and fisherfolk the worst affected. Respondents admitted that their skin irritation is caused by direct contact with the contaminated sea water. According to data from the Community Health Center, the number of respiratory infections (ISPA) has skyrocketed in recent years.

Furthermore, biological testing of urine samples from Kabaena residents, and testing of river water, sea water, and shellfish was also carried out by Satya Bumi, and analysed by Dr. Kathrin Schilling, an isotope geochemist at the University of Columbia. The results reveal perilous levels of hazardous metals in the food, water supply, and bodies of Bajau people. The samples were taken from Baliara and Pununnu villages, just two of many areas across Sulawesi and the Maluku islands that are bearing the brunt of the nickel industry's neglect for the survival and livelihoods of people, and the right to a safe and healthy environment – enshrined in UN international human rights law.



Figure 5: Researcher collects samples of water to test for metal pollution from mining pollution. September 2025. Source: Satya Bumi/ Yusuf Wahil.



Figure 6: Researcher collects urine samples from residents to test for metal residue from mining pollution. November 2024. Source: AP/ Yusuf Wahil.

METALS IN THE BODY: BIOLOGICAL TESTING RESULTS

The digestion of metals in the body can be scientifically analysed by testing levels of metals in biological samples such as urine. The research team carried out metals testing of urine samples taken from a representative group of residents in two Kabaena villages reveals significantly high levels of nickel and cadmium in their bodies, indicating the need for urgent action:

- Levels of urinary nickel (Ni) among inhabitants ranged between 6.41 and 33.29 $\mu\text{g/L}$. These levels are 6 to 30 times higher than the median person in the US. Nickel levels in the urine of Kabaena residents resemble those of nickel refinery workers, who face occupational exposure. For comparison, a study of a population living near nickel refineries found a median urinary nickel level of 3.4 $\mu\text{g/L}$ —2 to 10 times lower than that in Kabaena.[4] This raises concerns about long-term metabolic and endocrine health as nickel exposure is linked to oxidative stress, inflammation, and β -cell dysfunction, all risk factors for diabetes and cancer.
- Urinary cadmium (Cd) levels among the inhabitants of Kabaena Island range between 0.83 and 0.97 $\mu\text{g/g}$ creatinine. These levels are five times higher than the U.S. median urine level.[5] Cadmium levels similar to those in Kabaena have been linked to higher risks of cancer, cardiovascular disease, and overall mortality.[6]

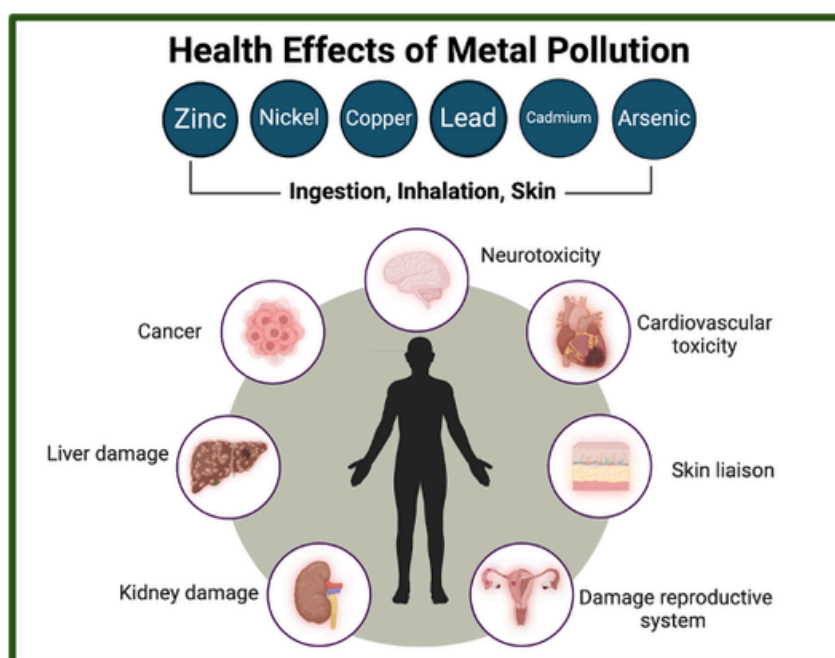


Figure 7: Schematic explaining the key health effects of metal pollution
Source: Dr. Kathrin Schilling. University of Columbia.

METALS IN THE WATER: RIVER AND SEA WATER TEST RESULTS

Laboratory tests of water sampled in several locations on Kabaena found various chemical components in the river and sea waters. The analysis indicates concentrations of nickel, sulphate, cadmium, and lead have reached 200% to 7000% higher than the safe limit in river and/or sea waters.

The metal levels in the water occur because of poor mining waste management, deforestation, and subsequent flooding from nickel mining sites. The communities in Baliara and Pununnu have been exposed to levels of lead, arsenic, copper, nickel and chromium. Exposure to these metals poses severe health risks including skin conditions, cognitive impairment, neurological disorders, cardiovascular diseases, and cancer.

METALS IN THE FOOD: SHELLFISH TESTING RESULTS

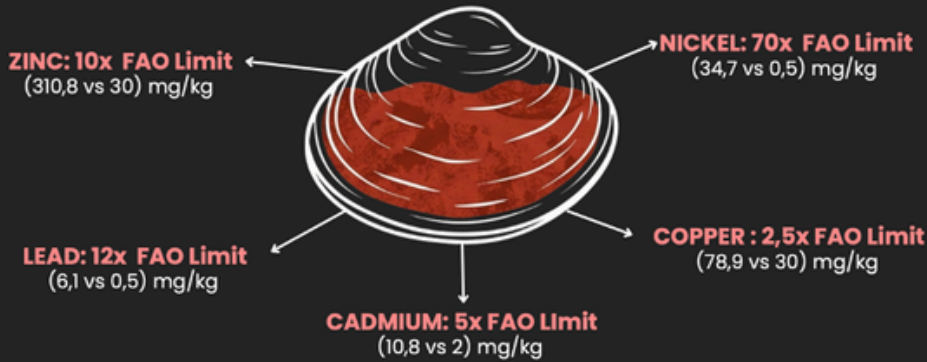
Seafood is central to the diets of Bajau people in Kabaena. Fish and shellfish tend to accumulate significant amounts of metals, making them a key pathway for contaminants to enter the food chain, particularly in communities that depend on aquatic resources. Given the dependence on fish as a dietary staple, regular assessment of heavy metal contamination is vital for managing health risks associated with long-term exposure, especially caused by the mining activity.

Test results taken from shellfish off the coast of two villages in Kabaena, showed that coastal shellfish had levels of Nickel 70 times higher than what is considered to be safe by the FAO/ WHO guidelines. Similarly, the levels of lead were twelve times higher, Cadmium was five times higher and Copper was 2.6 times higher (See figure 9).



Figure 8: Kabaena, July 2024.
Source: Satya Bumi/ Faiz Zulfikar

Shellfish: A New Poison Capsule



Shellfish are filter feeders. A major food source for the Bajau people has become a poison capsule.

Figure 9: Concentration of nickel, lead, cadmium and copper found in Kabaena coastal shellfish, compared to limits set by the UN Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO) . *Average value from Baliara and Pununuu

Source: Dr Katherine Schilling/ Satya Bumi

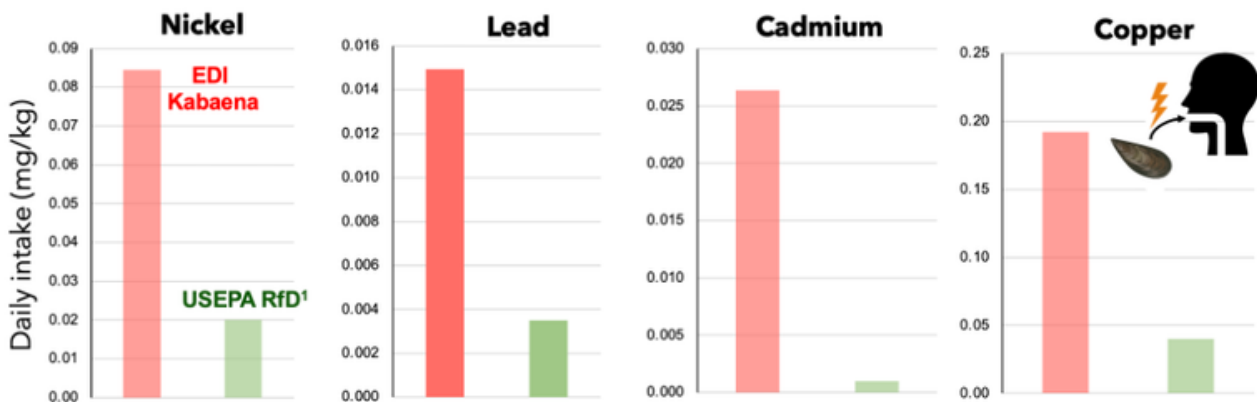


Figure 10: Average daily intake of toxic metals (EDI) in Baliara and Pununuu villages in Kabaena, compared to the maximum acceptable levels set by the United States Environmental Protection Agency (USEPA).

Source: Dr Katherine Schilling

EDI = Estimated daily dose of metal for the Kabaena community

Figure 10 shows the estimated daily intake (or dose) of nickel, lead, cadmium and copper amongst inhabitants in two villages in Kabaena, compared to a maximum acceptable dose set by the United States Environmental Protection Agency. The results show that the estimated intake of all four metals tested in Kabaena, exceeds the USEPA maximum limit.

WHY IS THIS HAPPENING?

The catastrophic damages to the environment, livelihoods, and most importantly the health, of communities in Kabaena have largely occurred at the hands of companies that are carrying out irresponsible mining practices. This includes poor management of mining tailings and waste; a lack of free, prior and informed consent (FPIC); little to no support or compensation to impacted communities; and deforestation of primary forest areas.

To make space for nickel mining sites, land is cleared and prepared to remove trees and vegetation from the area. This often includes deforestation of areas rich in biodiversity, including protected forest areas. Between 2001 and 2024, 3,626 hectares of forest were lost on Kabaena.

Nickel ore in Indonesia is mainly extracted from laterite deposits found near the surface of the ground and usually mined via open-pit mining. During this process large volumes of mined material are piled up next to the mining site, including fine particles of rock, clay, nickel, and other elements that are not converted into nickel. These piles can reach massive sizes, especially in large mining operations. In some cases, tailings are directly disposed of, or indirectly leach, into nearby rivers, streams, or the ocean, which can cause severe environmental impacts, including water contamination, as seen in Kabaena:

- **Water Pollution: Tailings can leach heavy metals and toxic chemicals into nearby water sources, contaminating local water supplies and harming aquatic life.**
- **Soil Contamination: The fine particles from tailings can spread across the surrounding land, contaminating the soil and making it difficult for vegetation to grow.**
- **Dust and Air Pollution: The dry tailings can create dust, which may be carried by the wind, leading to air pollution and potential health risks for nearby communities.**

Avoiding deforestation and effective management of tailings is essential in order to prevent adverse impacts on the environment, resources, and health of communities nearby. This is particularly pertinent in Sulawesi which experiences heavy rainfall during the wet season, exacerbating these risks. During heavy rains, tailings piles, that have not been appropriately contained, will become saturated with water, increasing the risk of tailings runoff; leaching contaminants into rivers, streams and groundwater; flooding and eroding nearby areas of land and waterways; and increasing pollution of toxic chemicals and fine particles of metals that can harm aquatic ecosystems and soil fertility. Villages around the coast of Kabaena have been hit by regular flooding in recent years, engulfing their homes and water sources with sediment and toxic metals. Mining companies have a duty to ensure that tailings are contained and managed appropriately, so that they do not contaminate nearby water sources. Buyers of these materials, including refiners and battery, steel and auto manufacturers, must conduct rigorous due diligence to enforce these standards throughout their supply chains.

TANGKENO VILLAGE: A CRITICAL WATER SOURCE



Some mines on Kabaena are not yet operational, including permits for open-pit mines that overlap with protected forests, river catchments, and critical water sources. Satellite imagery from Kabaena shows that nickel mining permits were granted on the protected forest in Tangkeno Village. This village is the primary source of water for thousands of residents. Water resources in Kabaena originate from the Mount Sabampolulu area, which flows through three main rivers in Kabaena: Lakambula, Lanapo, and Lampaku. In 2010, PT Bakti Bumi Sulawesi nickel concession was granted a permit that overlaps with the protected forest where the water sources begin. The indigenous community of Moronene in Tangkeno is deeply concerned about future mining activities that would destroy the Tangkeno Village's ecology.

Indonesia strictly prohibits the opening of protected forest for mining activities.[7] The law strictly prohibits open-pit mining in areas like Tangkeno Village, the protected forest has crucial ecological functions to control and save water, restrain erosion, and other functions that regulate the sustainability of the local environment. The findings show three open pit mines which overlap with, and have deforested, protected forest, including one concession which entirely sits within protected forest.



Figure 11: Tangkeno activists hold sign calling for their water source to be protected. September 2025. Source Satya Bumi/ Yusuf Wahil:

WHERE IS KABAENA’S DIRTY NICKEL GOING?

Global nickel supply chains, particularly those originating in Indonesia, severely lack transparency. This makes it difficult to trace where dirty nickel is going and who is responsible for cleaning up the mess that mining companies have left behind in Kabaena.

However, an analysis of shareholder information, public corporate documents, and shipping data, reveals connections between Kabaena and some of the world’s largest auto companies. Evidence from this research shows two clear pathways from Kabaena’s mining sites to industrial facilities at Indonesia Pomalaa Industrial park (IPIP) and Indonesia Morowali Industrial Park (IMIP). It is also possible that nickel from Kabaena is being transported elsewhere to be processed or by other actors beyond those mentioned in this report.

Supply Chain 1: Ford, Vale, and Huayou Cobalt via Indonesia Pomalaa Industrial park (IPIP)

A new industrial park being built in Pomalaa in Southeast Sulawesi features a high pressure acid leach (HPAL) facility, PT. Kolaka Nickel Indonesia or PT. KNI – a joint venture between Ford Motors, Vale Indonesia and Huayou Cobalt. The construction of the plant is set to be completed and put into operation by the end of this year. A 2023 [report](#) on the project by Huayou Cobalt, lists Kabaena as an “excellent resource” to source nickel, explicitly referencing the 14 IUPs (nickel mining concessions) that cover much of the island (see figure 9).[8]

4 资源优势 Excellent Resources

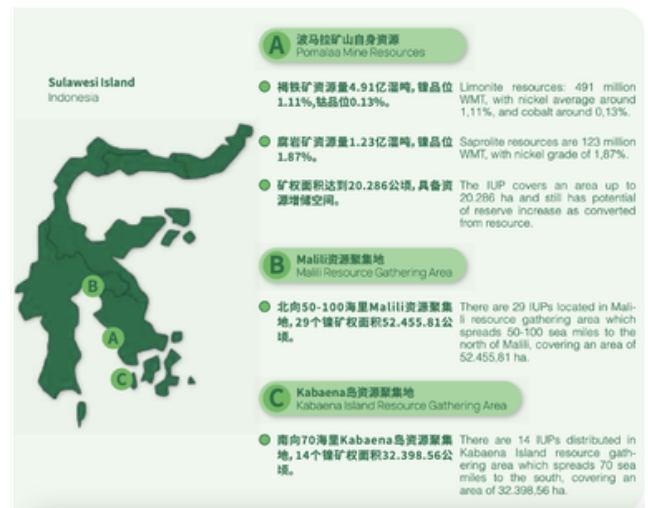


Figure 12: Huayou Cobalt “Company Profile” Report listing “Excellent Resources” for the IPIP
Source: Huayou Cobalt (2023)

Mighty Earth and Satya Bumi reached out to the three companies in the joint venture regarding the intention for PT KNI to source from Kabaena. Meetings with Ford and Vale, and communication from Huayou Cobalt, revealed the following:

FORD has confirmed their relationship to the KNI project as a joint shareholder with PT Vale Indonesia and Huayou Cobalt. In a communication to Mighty Earth in April 2026, Ford stated the following:

“While we can’t disclose confidential information about our suppliers, we have shared publicly that the PT Kolaka Nickel Indonesia (KNI) HPAL project will process ore provided by PT Vale Indonesia from its Pomalaa Block mine located on Sulawesi.”

Despite repeated outreach by Mighty Earth, Ford have failed to deny current or future business connections to Kabaena – an island where mining operations have caused, and continue to inflict, widespread deforestation and grave human rights violations on local communities. Ford's lack of transparency and clarity on supply chain connections to Kabaena, leaves open the possibility that nickel linked to these abuses is entering Ford's EV supply chain.

HUAYOU shared the following statement with Mighty Earth in April 2026:

“Huayou adheres to the investment philosophy of “making contributions to the local communities where Huayou invest in” and pays high attention to the governance of internal corporate social responsibility and sustainable development.” We committed to maintaining sustainable and socially responsible operations at our nickel processing facilities in the country. Regarding your inquiry, the joint KNI project sources only from PTVI's pomalaa mine.”

Despite repeated outreach by Mighty Earth, Huayou has also failed to clearly deny any current or future business relationships connected to Kabaena—an island where mining operations have caused, and continue to drive, widespread deforestation and serious human rights violations affecting local communities. Huayou's lack of clarity and transparency on this issue, both in relation to KNI and other processing facilities it owns in Indonesia, leaves open the possibility that nickel linked to these abuses is entering Huayou's supply chain.

PT Vale Indonesia Tbk is a nickel mining and processing company, which operates three mining concession spanning 118,017 hectares, covering South Sulawesi (70,566 ha), Central Sulawesi (22,699 ha), and Southeast Sulawesi (24,752 ha). PT.VI is also currently developing Pressure Acid Leach (HPAL) facilities in Pomalaa (a USD 4.5 billion collaboration with Ford and Huayou), Morowali (USD 2 billion with GEM Co. Ltd), and Sorowako Limonite (USD 2.3 billion with Huayou).

Through their joint venture in PT. KNI with Ford and Huayou, PT. VI is linked to potential sourcing plans from Kabaena, as noted above.

PT VALE INDONESIA shared the following statement with Mighty Earth in April 2026:

“PT Vale operation and activity located in Sorowako-East Luwu (South Province), Bahudopi (Central Sulawesi) and Pomala (South East Sulawesi) based on the IUPK area permitted by Government of Indonesia. PT Vale don't have operation and activity connection at Kabaena area/district.”

PT Vale have confirmed no “operation and activity connection” to Kabaena but despite request from Mighty Earth, PT Vale Indonesia have failed to explicitly deny current or future business relationships potential future business relationships linked to Kabaena - an island where mining activities have caused, and continue to cause, extensive deforestation and serious human rights violations affecting local communities. The absence of transparency and clarity from PT. Vale on this matter, leaves open the possibility that nickel linked to these abuses is entering PT Vale’s value chain and that of it’s business partners.

VALE BASE METALS (VBM) shared the following statement in communication with Mighty Earth in March 2026:

“Vale is a 33.9% shareholder of PT Vale Indonesia, which is independently operated by PT Vale and listed on the Indonesian Stock Exchange. MIND ID is the majority shareholder of PTVI. Vale Canada Ltd has no direct ownership of PT KNI. As a shareholder, VCL holds ESG governance rights in relation to their investment in PT Vale Indonesia. The projects, like PT KNI, are managed by the PTVI Board of Directors and management team. Vale S.A. previously conducted exploration activities on Kabaena island, but left in 2010.

PT Vale said that the joint PT. KNI project will not source nickel from Kabaena, where mining has caused grave human rights violations which are still being inflicted on communities, and that PT Vale will not have business operations connected to Kabaena.

****Vale Canada Ltd (33.9% shareholder); PT Vale Indonesia is an independently operated business.”***

Vale Base Metals later retracted this statement in an email communication.

Despite repeated outreach by Mighty Earth, Vale Base Metals have failed to deny current or potential future business relationships linked to Kabaena - an island where mining activities have caused, and continue to cause, extensive deforestation and serious human rights violations affecting local communities. The absence of transparency and clarity from PT VBM on this matter, leaves open the possibility that nickel linked to these abuses is entering PT VBM’s value chain and that of it’s business partners.

Vale’s own policies and public commitments span “every phase of the mining lifecycle — from early exploration to mine closure — and across our supply chains, partnerships, and communities.” Vale further assert that they “follow the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (OECD Guidance), conducting annual feed supplier risk assessments and enhanced due diligence where red flags are identified, including sourcing from Conflict-Affected and High-Risk Areas (CAHRAs).”[9]

Given these stated commitments, Vale’s continued lack of clarification regarding any current or future sourcing connections to Kabaena raises serious concerns about whether these standards are being fully upheld in practice. Communities in Kabaena have called for a comprehensive review and fundamental reform of mining operations on the island; for urgent health support and medical resources to be provided; for sustainable economic alternatives that can restore local livelihoods and strengthen community resilience; and full environmental remediation and restoration of areas damaged by mining activities. The harms of the nickel industry on Kabaena are profound and well documented, and these concerns have been flagged numerous times to companies operating in the region. Despite this, companies that have potential connections to the mining on the island refuse to commit to actual suspension of sourcing from areas that are poisoning communities.

Supply Chain 2: Volkswagen, BMW, Mercedes Benz, Stellantis, Volvo, Huawei, Toyota, Tesla, Honda, Ford, GM and more, via Indonesia Morowali Industrial Park (IMIP)

Monitoring of shipments from Kabaena shows that a tugboat originating from a jetty at PT Tonia Mitra Sejahtera (PT. TMS), a nickel mine in Kabaena, travelled to Indonesia Morowali Industrial Park (IMIP). IMIP is a large nickel processing park in South Sulawesi, home to smelters and High-Pressure Acid Leach (HPAL) facilities including Sulawesi Mining Investment (PT SMI) and PT QMB New Materials Energy, both of which have ownership ties to IMIP:

- PT SMI processes nickel laterite into nickel pig iron and stainless steel. PT SMI has a 25% ownership stake in PT IMIP.[10]
- PT QMB New Material Energy processes nickel laterite ore into Mixed Hydroxide Precipitate (MHP) – a pre-cursor for batteries. PT QMB is owned by GEM (36%), CATL (25%), Tsingshan (21%), Hanwa (8%), and Indonesia Morowali Industrial Park (IMIP) (10%).[11]

Supply chain mapping shows that refined nickel from PT QMB New Material Energy makes its way to three major battery manufacturers: Tsinghan (in China), Samsung SDI (in South Korea), and CATL (in China). From there, battery components are sold to major global auto companies such as Volkswagen, BMW, Mercedes Benz, Stellantis, Volvo, Toyota, Tesla, Honda, Ford and GM to create electric vehicle batteries (see full list in figure 13 below).

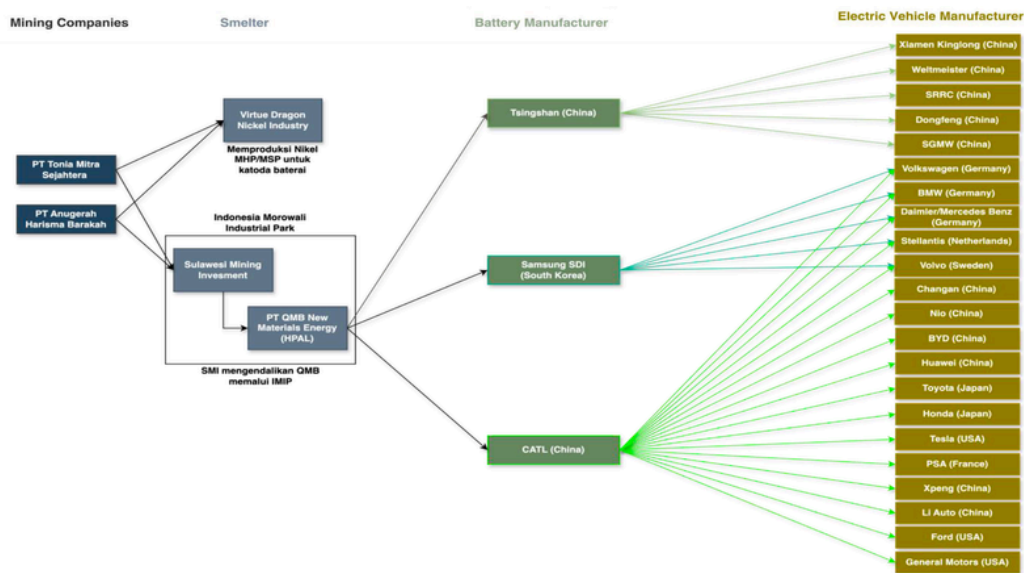


Figure 13: Supply chain map showing connections between PT Tonia Mitra Sejahtera (TMS) and PT Anugerah Harisma Barakah (AHB) in Kabaena, IMIP, global battery manufacturers and electric vehicle manufacturers.[11]

The evidenced supply chain link between Kabaena and PT IMIP; PT IMIP's share in PT SMI and PT QMB; and the subsequent ownership and supply chain connections to battery and auto manufacturers, potentially implicates all the companies named in the schematic above in the issues that have been uncovered in Kabaena. Shareholders, suppliers and buyers have both a right and responsibility to ensure that environmental and social safeguards are being upheld in their value chains, as well as an obligation to address and remedy any issues within those chains.

A CRITICAL MOMENT FOR KABAENA & INDONESIA'S NICKEL SECTOR

GLOBAL DEMAND FOR NICKEL

Indonesia is the world's largest producer of nickel, accounting for 51% of the world's nickel mine production in 2023.[13] Currently, the majority of Indonesian nickel is used to make stainless steel – but a growing share is going into battery manufacture. In 2023 only 15% of the world's nickel went towards battery production while the steel industry used 65% to create stainless steel. With an increase in consumer, automotive, and heavy industry demand, the global stainless steel market is expected to grow from \$118.9 billion in 2023 to \$241.70 billion by 2034, a projected annual growth rate of 6.6%. Some of the largest stainless steel producers include Baosteel, POSCO, Outokumpu Oyj, Cleveland-Cliffs, Nippon Steel Corporation, and Tata Steel.

Meanwhile, the International Energy Agency (IEA)'s Sustainable Development Scenario predicts that demand for nickel in batteries and renewables is forecasted to reach 60% of demand by 2040.[14] Despite Indonesia already producing more nickel than is required to meet this demand, the country is rapidly expanding nickel mining and downstreaming operations at an enormous scale.

Indonesia's oversupply of cheap nickel on to the market has plummeted prices of nickel in the past 3 years.[15] Consequently, the government is now looking to grow Indonesia's lithium-ion or Lithium Ferrous Phosphat (LFP) battery industry, which requires less nickel.

The expansion of these industries will place increased pressure on Indonesia's natural ecosystems and the people that depend on them. To prevent further destruction of people's homes, livelihoods, and marine and terrestrial ecosystems, it is imperative that global actors have traceability and transparency of their supply chains to the mine level and implement rigorous policies and due diligence processes that ensure both people, and the planet are protected.

INDONESIA POMALAA INDUSTRIAL PARK (IPIP)

In the regency of Kolaka, Southeast Sulawesi, a new industrial park – PT. Indonesia Pomalaa Industrial Park (IPIP) – is set to come online in 2026. The anchor project within the industrial park is PT Kolaka Nickel Indonesia (PT KNI), a High Pressure Acid Leach (HPAL) processing facility designed to convert laterite nickel ore into mixed hydroxide precipitate (MHP), primarily for use in electric vehicle (EV) batteries.

PT KNI is a joint venture between PT Vale Indonesia, Huayou Cobalt, and Ford Motor Company, positioning the project as a strategic link between Indonesia's nickel downstreaming agenda and global EV supply chains. Once fully operational, the facility is expected to produce approximately 120,000 tonnes of contained nickel and 15,000 tonnes of contained cobalt annually in MHP products.[16]

According to Huayou, IPIP’s vision is to “lead the world’s green development...By developing green power, building complete infra-structure, providing one-stop solution for investment in Indonesia, and attracting investment based on resources and smelting, to build a world-class lithium whole industry chain closed green industrial park.”[17]

Huayou has further stated, in a company profile report, that the KNI plant plans to use a mix of natural gas, hydroelectric, and solar power to operate the facility. However, this claim contrasts sharply with conditions observed on the ground, where coal-fired power plant infrastructure is present and supporting industrial operations.[18]

Following the announcement of the joint venture, Lisa Drake, Vice President for Ford Model e EV Industrialization, stated that “working this way puts Ford in a position to help make EVs more accessible for millions—and to do it in a way that helps better protect people and the planet.”[19]

Despite these stated ambitions, significant environmental and social harms have already been reported during the development of the Pomalaa industrial complex. Communities in Oko-oko, Pesouha, Hakatutobu, and Sopura villages, alongside civil society organisations Satya Bumi and Puspaham, have raised concerns related to environmental degradation, impacts on livelihoods, and alleged human rights violations associated with mining and industrial park development. Surveys conducted with 72 Indigenous People aged 33 to 68, indicated an absence of free, prior, and informed consent (FPIC) for affected communities; the militarization and intimidation of local residents; damage to rice farming and other livelihoods; and hazardous pollution of waterways, which has reportedly led to health impacts among communities living near the mine area.

While harms have already occurred during the project’s development phase, the facility has not yet begun operations. This presents PT Vale, Huayou, and Ford—as well as their investors and suppliers—with a critical window of opportunity to address existing harms, learn from the costly failures of other industrial parks, and ensure that PT KNI does not cause further damage to communities or the environment.



Figure 14: Indonesia Pomalaa Industrial Park in construction. January 2026. Source: Satya Bumi

RECOMMENDATIONS

END MINING ON KABAENA & ALL SMALL ISLANDS

- Mining and downstream companies should investigate their supply chains to identify if materials are being sourced, or planned to be sourced, from Kabaena, and transparently publish their supply chains back to the mine level.
- Mining companies must immediately end all mining activities on Kabaena and all small islands and commit to no future mining in these areas.
- Downstream companies including refiners and battery, steel and auto manufacturers should commit to not sourcing mined materials from Kabaena and all small islands.
- The government of Indonesia should review all mining licenses in small islands and revoke permits in forested areas and those that do not comply with the law banning mining on small islands in Indonesia.

PROVIDE HEALTHCARE AND COMPENSATION

- Mining companies in Kabaena and companies directly and indirectly sourcing from Kabaena should:
- provide urgent healthcare services to communities in Kabaena that have been adversely impacted by mining operations, including medical, psychological, and economic support for losses and human rights violations that happen in the Island;
- provide resources and materials to communities whose food and water sources have become unsafe to consume.
- The government of Indonesia should assess metal exposure among the Bajau community on Kabaena Island and all communities near mining sites in Indonesia; and provide access to public services to treat any associated health impacts.

CLEAN UP & PREVENT ENVIRONMENTAL DAMAGES

- Mining companies in Kabaena must immediately initiate a programme to restore and rehabilitate all areas that have been damaged due to mining operations.
- The government of Indonesia must control every waste disposal process of every nickel mine in Indonesia, preventing a recurrence of the damage seen in Kabaena.

RECOMMENDATIONS BY SECTOR:

MINING COMPANIES

- Provide urgent healthcare services, material support and compensation to communities experiencing adverse health impacts from mining activities
- Restore the environmental damages caused by mining activities and land clearance for mining sites
- Commit to implement Free, Prior and Informed Consent (FPIC) of Indigenous and local communities, including the right to withhold consent to the development of nickel infrastructure.
- Implement strong environmental and social safeguards in mining operations, as instructed by the document of OECD Due Diligence Guidance for Responsible Supply Chains of Minerals.

THE GOVERNMENT OF INDONESIA

- Enforce the constitutional ban on mining in small islands and protected forest areas; revoke licenses that violate these protections.
- Hold mining companies accountable for environmental crimes and violations of forestry and health laws.
- Launch a comprehensive national health screening program in communities exposed to nickel mining pollution, beginning with Kabaena.
- Invest in water and health infrastructure in Kabaena and other impacted areas.
- Ensure transparent license reviews and prohibit new permits in ecologically and socially sensitive areas, including those in close proximity to Indigenous Peoples land, areas of high conservation value (HCV), and marine conservation areas.
- Mandate mine-level traceability and ESG due diligence for nickel supply chains operating in the country.
- Strengthen enforcement of waste and tailings management laws, particularly in flood-prone regions.

DOWNSTREAM COMPANIES: MANUFACTURERS & END USERS

(including auto companies and stainless steel manufacturers)

- Cease sourcing nickel from Kabaena and other small islands, and make these exclusions publicly binding.
- Conduct mine-level traceability and transparency of sourcing practices across the supply chain.
- Commit to implement Free, Prior and Informed Consent (FPIC) of Indigenous and local communities, including the right to withhold consent to the development of nickel infrastructure.
- Support remediation and healthcare funding in communities affected by their supply chains, including through direct financial contributions or partnerships with trusted NGOs.
- Implement robust due diligence and risk assessments, including regular audits, to identify and prevent human rights and environmental violations.
- Integrate IRMA or equivalent environmental and social performance benchmarks into procurement standards and contracts.

CONSUMER COUNTRY GOVERNMENTS

- Require companies to disclose mine-level sourcing of critical minerals like nickel as a condition for importing goods.
- Implement mandatory human rights and environmental due diligence legislation, aligned with UN Guiding Principles and OECD guidelines.
- Offer technical and financial support for community-led environmental remediation in areas affected by mining, including Indonesia.
- Support and incentivize responsible sourcing frameworks such as the Initiative for Responsible Mining Assurance (IRMA) in global trade agreements and procurement rules.
- Fund independent monitoring and civil society oversight in nickel-producing regions.

CONCLUSION

The findings from Kabaena are both urgent and devastating. Testing of sea water, river water, shellfish, and urine has revealed dangerously high levels of toxic metals - including nickel, cadmium, and lead - far exceeding international safety thresholds. These pollutants are entering the bodies of Kabaena's residents through the food they eat, the water they drink and bathe in, and the air they breathe. The health implications are severe and far-reaching, including increased risks of cancer, neurological damage, reproductive issues, and respiratory illness. This pollution is not abstract, it is already reshaping lives and ending them. Children are drowning in murky, contaminated waters, and Bajau traditions built on marine knowledge are under existential threat.

Despite a constitutional court ruling that bans mining on small islands, Kabaena continues to be exploited for nickel, primarily for use in electric vehicle batteries and stainless steel. The responsibility lies with both the Indonesian government and the global corporations that continue to profit from this destructive industry. Companies including Ford, Vale, Huayou Cobalt, and major automakers connected to IMIP must urgently ensure that they are not sourcing materials from Kabaena. That includes stainless steel producers and battery manufacturers who are likewise implicated in this toxic supply chain.

Local communities, particularly the Bajau people, have made their demands clear. They want their island restored, their waters clean, and their health protected. To address these harms, the following actions are imperative:

Immediately halt all nickel mining on Kabaena and other small islands.

Provide urgent humanitarian support: clean food, drinking and bathing water, and access to health services.

Launch a large-scale clean-up and environmental rehabilitation program.

Offer fair compensation and long-term healthcare to affected communities.

Enforce transparent, mine-level supply chain traceability and conduct rigorous due diligence.

Kabaena is a warning. But it can also be a turning point, if companies, governments, and consumers act now. The environmental destruction and human suffering we are witnessing is not the cost of progress, it is the result of failing to uphold basic legal, environmental, and ethical standards. That failure must end here.



Satya Bumi is an environmental campaigning organization founded in August 2022. Satya Bumi has the objectives to conserve forests, biodiversity, and important ecosystems by prioritizing human rights as well as strengthening the roles of local and indigenous communities. Satya Bumi is committed to bring positive changes through alleviating threats to nature and urging the government and corporations to elevate environmental and human rights accountability in their policies and businesses

satyabumi.org



Mighty Earth is a global advocacy organization working to defend a living planet. Our goal is to protect half of Earth for Nature and secure a climate that allows life to flourish. We are obsessed with impact and aspire to be the most effective environmental advocacy organization in the world. Our team has achieved transformative change by persuading leading industries to dramatically reduce deforestation and climate pollution throughout their global supply chains in palm oil, rubber, cocoa, and animal feed, while improving livelihoods for Indigenous and local communities across the tropics.

mightyearth.org

The information in this document has been obtained in good faith from sources that are believed to be reliable, but any potential interpretation of this report as making an allegation against a specific company or companies named would be misleading and incorrect. The authors accept no liability whatsoever for any direct or consequential loss arising from the use of this document or its contents. 24