

Nickel Unearthed

The Human and Climate Costs of Indonesia's
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Summary

Max Sigoro, a 51-year-old Sawai fisherman, began fishing the blue waters near his coastal community, Gemaf, on the remote island of Halmahera in Eastern Indonesia, in his youth. For decades, he caught skipjack tuna and groupers, which fed his family and has been a major source of income. Today, because of pollution from smelting operations at the Indonesia Weda Bay Industrial Park (IWIP) and nickel mining in the area, Max's catch has dropped significantly, making it harder to sustain himself and his family.

Before the mining, the fish stock was abundant, the sea was clear. Now, I can't catch fish near [IWIP]. The water is dirty, and the security chases us away. The water pollution is from mining. There is oil in the water from the machines. Also, hot water from the power plants is polluting the ocean. Sometimes the water is reddish. We used to row our boats close to the shore to fish, now we have to go further out. It's more dangerous to go further out and we have to calculate the tides. It's also more expensive. The fish are the same size. But we worry about the fish being polluted.¹

Maklon Lobe, a 42-year-old Sawai man from Gemaf, owned farmland within the current boundaries of IWIP, where he grew cocoa, sago, and nutmeg. Maklon told Climate Rights International that, without his permission, in 2018 representatives of IWIP cut down his trees, blocked the road to cut off access to his land, and began excavating his land. Maklon says he met with IWIP representatives multiple times between 2018 and August 2022 to discuss compensation. During this period, police officers visited his home "countless times," demanding to know why he refused to sell his land to IWIP. Eventually, Maklon gave in. Despite holding a land certificate confirming his legal ownership of 38 hectares of land, IWIP only agreed to pay for eight hectares, taking the rest without compensating him.²

This report documents the environmental and human impacts of IWIP, a huge nickel smelting and processing project, and surrounding nickel mines in Halmahera. The construction and operation of IWIP and upstream nickel mining has devastated the lives of many Indigenous Peoples and other rural community members, like Max and Maklon, and caused significant harms to the local environment and global climate.

Climate Rights International interviewed 45 people living near nickel mining and smelting operations who described serious threats to their land rights, rights to practice their traditional ways of life, right to access clean water, and right to health due to the mining and smelting activities at IWIP and nearby nickel mining

¹ Climate Rights International interview with Max Sigoro, February 8, 2023, Gemaf, North Maluku, Indonesia.

² Climate Rights International interview with Maklon Lobe, February 10, 2023, Gemaf, North Maluku, Indonesia.

areas. Some companies, in coordination with Indonesian police and military personnel, have engaged in land grabbing, coercion, and intimidation of Indigenous Peoples and other communities, who are experiencing serious and potentially existential threats to their traditional ways of life.

Indonesia is the world's largest producer of nickel, supplying 48 percent of global demand in 2022. Across the country, massive nickel industrial parks are being built, where nickel ore is refined into usable materials for industrial applications and consumer products. While for decades nickel has primarily been used in the production of stainless steel, demand has skyrocketed in recent years due to increasing use in renewable energy technologies, including in electric vehicle (EV) batteries. To meet the growing demand for EVs and other renewables, and in a scenario aligned with the Paris Agreement's climate goals, global nickel demand is expected to increase roughly 60 percent by 2040.



IWIP industrial complex. Credit: Muhammad Fadli for CRI.

Perversely, although the purpose of the EV transition is to reduce the carbon footprint of the automobile industry, nickel smelting at IWIP has a massive carbon footprint. Instead of using plentiful renewable solar and wind power, IWIP has already built at least five captive coal-fired plants and ultimately will be home to

twelve new coal-fired power plants. In total, these coal plants will provide an estimated 3.78 gigawatts per year of energy by burning low quality coal from Kalimantan on the island of Borneo. Once fully operational, they will use more coal than Spain or Brazil in a single year.

Indonesia's President, Joko Widodo (popularly known as "Jokowi"), has made the nickel and battery industries the centerpiece of his plans for Indonesia's economic development. In his November 2023 visit to the White House, it was the top agenda item in his talks with U.S. President Joe Biden.

The transition to renewable energy is essential, but strong government regulation and oversight is necessary to ensure that the growing critical mineral industry and related supply chains do not replicate the appalling labor and environmental practices that have long characterized the extractive industries in Indonesia and around the globe. Electric vehicle companies, such as Tesla, Ford, and Volkswagen that have contracts to source nickel from Indonesia, including from companies that have operations at IWIP, should push for sustainable, just supply chains and call on the Indonesian government and mining and smelting companies to protect the land and other rights of Indigenous Peoples and communities in resource-rich areas, minimize deforestation, mitigate air and water pollution, and ensure that the rights of activists and local residents to organize and protest are upheld.

The Human and Environmental Cost of Nickel Mining and Smelting

Halmahera Island in North Maluku province is one of the "Spice Islands," home to nutmeg, mace, cloves, and other products that drove European colonial interest in the area starting in the 16th century. The island is largely forested, mountainous, and sparsely populated. The Maluku Islands are home to a diverse population, with approximately 28 ethnic groups and languages, including Sawai and Tobelo.

As in the colonial era, outside interests are again staking their claim on Halmahera's natural resources. In 2018, construction began on IWIP, a 5,000-hectare, multi-billion-dollar industrial complex located in Lelilef Village, Central Halmahera, North Maluku, roughly three kilometers from Max Sigoro's home in Gemaf. IWIP was built at breakneck speed, beginning operations in 2020, less than two years after the project was announced. The mountainous area just north of the industrial park is rich with nickel deposits.



Children playing at the beach in Lelilef, just outside of the Indonesia Weda Bay Industrial Park.
Credit: Muhammad Fadli for CRI.

In addition to the greenhouse gas emissions from coal plants at IWIP, nearby nickel mining is a significant driver of deforestation, another contributor to the climate crisis and biodiversity loss. Using geospatial analysis, Climate Rights International (CRI) and the University of California, Berkeley, AI Climate Initiative determined that at least 5,331 hectares of tropical forests have been cut within nickel mining concessions on Halmahera, totaling a loss of approximately 2.04 metric tons of greenhouse gases (CO₂e) previously stored as carbon in those forests.

Individuals interviewed by Climate Rights International reported that the process of land acquisition has been marred by land grabbing, little or no compensation, and unfair land sales. People living near IWIP have had their land taken, deforested, or excavated by nickel companies and developers without their consent. Some community members who refused to sell their land or contested the set land price offered experienced intimidation, received threats, and faced retaliation from company representatives, police officers, and members of the military. The arrival of the nickel industry has led to a growth in police and military presence in the villages

near IWIP, including a Mobile Brigade for the Indonesian National Police and an Indonesian National Army outpost.

As the nickel industry transforms this region, both coastal and forest communities are experiencing existential threats to their livelihoods and traditional ways of life. For generations, communities living in Central and Eastern Halmahera have depended on natural resources to sustain themselves and their families as artisanal fisherfolks, farmers, sago-makers, and hunters. People interviewed by Climate Rights International reported that the nickel industry's destruction of forests, acquisition of farmland, degradation of freshwater resources, and harm to fisheries has made it difficult, if not impossible, to continue their traditional ways of life.

For most of his life, Felix Naik, 65, used water from the Ake Doma River, a small river near Lelilef, for nearly everything. Yet since mining companies came to the area, he avoids using the water. Felix told Climate Rights International, "There is deforestation on the river upstream. So if it rains, the river turns dark brown and muddy," indicating that the water is mixed with soil sediment from the upstream area, which may also indicate harmful heavy metal pollution.³ Felix has dug three wells to survive, but the water is not enough to support his family, so he must buy gallons of water every two to three days for IDR5,000 (US\$0.33) per gallon.

Rampant deforestation, air and water pollution, and habitat destruction from nickel mining and smelting activities are seriously harming the environment. Nickel mining and smelting operations are threatening local residents' right to safe, clean drinking water, as industrial activities and deforestation are polluting the waterways on which local communities depend for their basic needs. Community members are also concerned that increasingly common flooding events are linked to deforestation by nickel mining companies.

Residents in villages near IWIP also fear that newly developed health problems, including respiratory and skin problems, are related to pollution from the construction and operation of IWIP and its coal power plants. Although the public health studies needed to directly attribute the reported health problems to industrial nickel activities at IWIP are lacking, the types of health impacts reported are in line with what studies suggest may be expected with exposure to pollution from industrial sources and coal plants.

A lack of transparency or provision of basic information by companies and the Indonesian government is making the situation worse. Community members have

³ W Wei et al., "Effects of Mining Activities on the Release of Heavy Metals (HMs) in a Typical Mountain Headwater Region, the Qinghai-Tibet Plateau in China," *Intl J Environ Res Public Health* 15,9 (2018), doi: 10.3390/ijerph15091987 (accessed December 14, 2023).

difficulties accessing information about the consequences of industrial pollution on their health. Neither IWIP nor the government provides publicly available or accessible information on air and water quality to local residents.

Indigenous Peoples have the right to participate in decision-making in matters which would affect their rights. States should consult and cooperate in good faith in order to obtain their free, prior, and informed consent (FPIC) prior to the approval of any project affecting their land or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources. Yet, Indigenous Peoples interviewed by Climate Rights International in Central and East Halmahera repeatedly said that they were not told the purpose of land acquisition or any other details of the project by any nickel mining or smelting companies.

For Novenia Ambuea, an Indigenous rights activist in Minamin, East Halmahera, land represents her connection with her ancestors. In Novenia's spare time, she and her husband manage their 2-hectare farm where they grow coconuts, nutmegs, bananas, and vegetables. Yet this way of life is threatened as Novenia's land is now surrounded by mining concessions. Novenia told Climate Rights International,

The land comes from our parents. If we sold it, then we also sold our history and memories. Life in Minamin is about fishing and farming, since a very long time ago. We are fisherfolk, hunters, and farmers. Our life now is still the same but soon that will change.⁴

Corporations and Governments are Driving Local and Global Harms

These harms to local communities and the environment are being driven by the activities of the dozens of domestic and foreign-based companies engaged in nickel mining and refining in Central and East Halmahera, including at IWIP.

IWIP is a joint venture of three private companies headquartered in the People's Republic of China: Tsingshan Holding Group, Huayou Cobalt, and Zhenshi Holding Group. In addition to these three shareholders, a growing number of companies have announced plans to build industrial facilities within IWIP to produce nickel materials needed for EV batteries. Eramet and BASF have announced plans to build a nickel and cobalt refining facility, called Sonic Bay, that would produce 67,000 tons of nickel and 7,500 tons of cobalt per year, using potentially dangerous high-pressure acid leach (HPAL) technology. In addition, South Korean giant POSCO has

⁴ Climate Rights International interview with Novenia Ambuea, March 24, 2023, Minamin, North Maluku, Indonesia.

announced plans for a \$441 million plant in IWIP with the capacity to produce 52,000 metric tons of refined nickel per year, enough for roughly one million EVs.

The Indonesian government is actively promoting the nickel industry over the wellbeing of its citizens. Over the past decade, the Indonesian government has enacted policies and laws to prioritize the growth of the nickel industry and weaken environmental protection and the rights of Indigenous communities. In doing so, it has failed to fulfill its obligation to protect and respect the rights of those affected by mining and smelting operations. The Indonesian government is also failing to protect the climate and mitigate climate change.

President Jokowi should strengthen laws and regulations to minimize the impacts of nickel mining and refining on communities, including on Indigenous communities. The Ministry of Energy and Mineral Resources should ensure that mining companies follow strict mining operations procedures that respect the environment and human rights and should fully assess, monitor, and investigate alleged environmental pollution and make the findings of that investigation publicly available and accessible. The Ministry of Agrarian Affairs and Spatial Planning should immediately recognize Indigenous communities' customary land and ensure that nickel mining and refining companies respect the rights of local and Indigenous communities. The Indonesian government should also immediately stop the permitting of all new coal plants, including captive coal plants used to power industrial areas.

Companies at IWIP and some nearby nickel mining companies are failing their human rights responsibilities under the United Nations Guiding Principles on Business and Human Rights. The three main stakeholders in IWIP – Tsingshan, Huayou, and Zhenshi – should conduct due diligence to fully identify the harms caused by their operations and engage in mediation with impacted communities near the Indonesia Weda Bay Industrial Park regarding how best to remedy those harms. IWIP and nickel mining companies should fully and fairly compensate all community members, including Indigenous Communities, for their lands. Nickel companies should properly dispose of mine tailings to minimize environmental pollution and stakeholders at IWIP should take immediate steps to remedy water and air pollution caused by their operations. All companies must ensure that Indigenous Peoples are able to provide full FPIC as established by international human rights law. Companies that have not yet begun construction on proposed developments at IWIP, including Eramet, BASF, and POSCO, should pause developments until a full, independent investigation of the human rights, environmental, and climate impacts of the project is conducted.

To prevent climate catastrophe, project developers should immediately stop the construction of all new coal plants at the Indonesia Weda Bay Industrial Park and instead power industrial operations with renewable energy sources like wind or solar power. Companies should also take steps to minimize air, water, and soil pollution from industrial activities.

Electric vehicle companies such as Tesla, Ford, and Volkswagen that have contracts to source nickel from Indonesia, including from companies that have operations at IWIP, should immediately use their leverage to push suppliers to address harms to local communities and the environment, and if necessary, stop sourcing nickel from companies responsible for such abuses. EV companies should also increase transparency about their critical minerals supply chains by providing public information about all suppliers, including those involved in mineral mining, refining, smelting, and battery production. In addition, they should conduct regular, transparent, and genuinely independent audits of mines and facilities where critical minerals are mined and refined.

As noted by United Nations Secretary General António Guterres, “The extraction of minerals for a clean energy revolution must be done in a sustainable, fair & just way.”⁵ Climate Rights International believes that the transition to electric vehicles is an essential part of the renewable energy and green transportation transition, but this transition will only be “green” and “just” if it respects human rights throughout the supply chain for materials and does not perpetuate the same abusive, climate-intensive practices followed for decades by extractive industries. Governments and regulators should also increase access to public transit and alternative methods of transport to decrease emissions from private vehicles, and mandate minimum levels of recycled content in EV batteries to decrease the demand for virgin critical minerals.

Key Recommendations

To IWIP and all nickel mining and smelting companies in Central and East Halmahera:

- Fully and fairly compensate all community members with land conflicts with mining companies and/or the industrial park.
- Minimize air, water, and soil pollution from industrial activities by installing air pollution control mechanisms, properly disposing of industrial waste and coal ash, and treating wastewater from industrial facilities and coal plants based on the best available science and technologies.

⁵ A Guterres, X post, December 2, 2023, <https://twitter.com/antonioguterres/status/1730994288551510362> (accessed December 2, 2023).

- Immediately stop the construction of all new coal plants at the Indonesia Weda Bay Industrial Park and announce a time-bound plan to replace existing coal plants with renewable energy sources as soon as possible.
- Share all information related to future expansion, deforestation, land acquisition, and industrial activities with the public, and make that information accessible to local communities, including by holding public meetings and providing information in local languages, and ensure that indigenous communities give full Free, Prior, Informed Consent as required by international law.

To the Indonesian government:

- Immediately stop the permitting of all new coal plants, including captive coal plants used in industrial areas.
- Ensure that mining, smelting, and all related activities do not lead to serious or preventable environmental damage and other human rights abuses of affected communities.
- Ratify ILO Convention 169, the Indigenous and Tribal Peoples Convention, and enact the Indigenous Peoples' Rights Bill in order to simplify the process of recognition of Indigenous Peoples and their customary lands.
- Hold accountable, including through criminal prosecutions and civil penalties, company representatives that violate individual and community rights.

To electric vehicle companies:

- Leverage buying power to pressure mines, mineral processors, and/or suppliers to change practices that cause environmental or human rights harm.
- Conduct regular, transparent, and genuinely independent audits of mines and facilities where nickel and other critical minerals are mined and refined to ensure that suppliers respect human rights and the environment.
- Increase transparency about EV supply chains by providing public information about all companies in your supply chain engaged in mineral mining, refining, smelting, and battery production.
- Demand that nickel suppliers stop the construction of all new coal plants and produce a time bound plan to power operations using renewables.

Glossary and Acronyms

AMAN	Aliansi Masyarakat Adat Nusantara (National Indigenous Communities Alliance)
AMDAL	Analisis Mengenai Dampak Lingkungan (Environmental Impact Assessment)
Beneficiation	The process of milling ore and separating out the small quantities of metal from the non-metallic materials
Captive coal plant	A coal-fired power plant that powers off-grid industrial activities and does not feed into the electricity grid.
CIPP	Comprehensive Investment and Policy Plan
Critical minerals	Also called transition minerals, these are mineral resources essential for clean energy technologies, economies, or national security
EIA	Environmental Impact Assessment
ESG	Economic, Social, and Governance
ESIA	Environment and Social Impact Assessment
FPIC	Free, Prior, and Informed Consent
FPM	PT First Pacific Mining
G20	Group of Twenty
HPAL	High pressure acid leach
IMIP	PT Indonesia Morowali Industrial Park
IRMA	Initiative for Responsible Mining Assurance
IWIP	PT Indonesia Weda Bay Industrial Park
JETP	Just Energy Transition Partnership
JV	Joint venture
Komnas HAM	Indonesian National Commission on Human Rights
LCA	Life cycle analysis
MHM	PT Mega Halmahera Mineral
NDC	Nationally Determined Contribution to the Paris Agreement
Overburden	Rock, soil, or other material lying above a mineral deposit.
Scope 3	Scope 3 emissions cover all indirect greenhouse gas emissions outside the control of a business or its direct energy sources that arise in a value chain (both upstream and downstream), such as emissions from the extraction and production of raw minerals
TDS	Total dissolved solids
UNFCCC	United Nations Framework Convention on Climate Change
WBN	PT Weda Bay Nickel
XUAR	Xinjiang Uygur Autonomous Region

Methodology

This report examines the human, environmental, and climate impacts of nickel mining and smelting operations in Halmahera, North Maluku, Indonesia. Our research focused on communities living near the Indonesia Weda Bay Industrial Park, as well as communities in and around nickel mining concessions.

Climate Rights International conducted this research because local residents and community groups had reported human rights abuses, deforestation, forced displacement, and pollution as the result of the Weda Bay nickel project. The climate change and human rights consequences of the extraction of critical minerals is a key aspect of the transition to Net Zero. Indonesia is important because it is the world's largest supplier of nickel, its nickel industry is growing at a rapid pace, and it has multiple large-scale nickel smelting industrial areas in various parts of the country. The Indonesia Weda Bay Industrial Park, which went into operation in 2022, is located in close proximity to multiple Indigenous communities, and has received less attention than other similarly-sized nickel industrial parks in Indonesia.

This report is based on information collected during field research in North Maluku between February and September 2023. Over the course of this research, Climate Rights International representatives visited the following villages and cities: Weda, Lelilef, Gemef, Fritu, Sagea, Waleh, Messa, Minamin, Tukur-Tukur, Saolat, and Ternate.

Climate Rights International interviewed 45 people living near nickel mines, concessions, or industrial areas for this research, including 26 men and 19 women. We did not interview any children. Thirty-nine community members interviewed for this report identified as Indigenous, including 20 Sawai and 19 Tobelo people.

All interviewees provided informed consent to participate in the interview. In some cases, we have given pseudonyms and withheld identifying information of interviewees to protect their identity over fears of retaliation. No financial incentives were provided to interviewees.

In addition, CRI also spoke with dozens of regional and international organizations on nickel operations in Indonesia.

To calculate deforestation levels, we partnered with researchers at the University of California, Berkeley Climate AI Lab to quantify the amount of forest lost within mining concessions. Researchers overlaid mining concessions in Indonesia using geospatial data available on the Indonesian Ministry of Energy and Mineral Resources website on deforestation maps by Global Forest Watch, and were able to

calculate forest loss within each mining concession across the country on an annual basis.

We also reviewed secondary resources, including peer reviewed literature, media reports, legal documents, and company reports. Climate Rights International also reviewed Indonesian laws and regulations.

Prior to the release of this report, Climate Rights International wrote to the Ministry of Agrarian Affairs and Spatial Planning, the Ministry of Energy and Mineral Resources, the Ministry of Environment and Forestry, the Ministry of Finance, the Coordinating Ministry of Maritime and Investment Affairs, the North Maluku Provincial Government, and the North Maluku Provincial Environmental Agency. Climate Rights International also wrote to 22 companies, including nickel mining, smelting, and electric vehicle companies. Copies of these letters and government or company responses may be found in Appendix I.

I. The Nickel Industry in Indonesia



Map of Indonesia. Red box around Halmahera.



Maluku Islands. By Lencer - own work, used: Maluku Locator Topography.png by User:Sadalmelik, CC BY-SA 3.0

The world is undertaking a massive energy transition to mitigate the climate crisis and decrease greenhouse gas emissions. To do this, governments and companies are making major investments to move away from fossil fuels to renewable energy. To power new energy systems, critical minerals – including nickel, lithium, copper, and cobalt – are needed to build new technologies, including batteries, solar panels, and onshore and offshore wind farms.⁶

Historically, nickel's primary use has been in the production of stainless steel. Now, nickel has been deemed a critical mineral due to its importance in solar infrastructure and rechargeable lithium-ion, nickel cadmium, and nickel metal hydride batteries. Nickel's relative abundance, resistance to corrosion, high energy density, and large storage capacity make it particularly useful in batteries. Battery technology development is also projected to shift towards higher percentages of nickel in battery cathodes as an alternative to cobalt, which is primarily mined in the

⁶ United States Department of the Interior, "2022 Final List of Critical Minerals," February 22, 2022, https://d9-wret.s3.us-west-2.amazonaws.com/assets/palladium/production/s3fs-public/media/files/2022%20Final%20List%20of%20Critical%20Minerals%20Federal%20Register%20Notice_222022-F.pdf (accessed March 27, 2023).

Democratic Republic of the Congo and has been linked with child labor, labor rights abuses, and armed conflict.⁷

To meet the growing demand for EV batteries and other renewable energy technologies and in a scenario aligned with the Paris Agreement goals, global nickel demand is expected to increase roughly 61 percent by 2040.⁸ The auto industry is – and will continue to be – responsible for a significant portion of that increased demand for nickel, as an average electric vehicle requires 39.9 kilograms of nickel.⁹ Indonesia is the world's largest producer of nickel and holds 21 percent of the 100 million metric tons of global nickel reserves.¹⁰ In 2022, Indonesia supplied 48.8 percent of the world's nickel.¹¹

Like other countries located near the equator, Indonesia is home to significant laterite nickel ore deposits, which are generally lower quality and found closer to the surface than the nickel sulfide deposits found in temperate countries, including the U.S., Canada, and Russia. Because of its lower quality, laterite nickel ore is significantly more carbon intensive to process into high-quality nickel that can be used in the production of batteries.¹² In addition, large industrial areas in Indonesia where nickel ore is processed are powered by high-emitting coal-fired power plants, which have been constructed for the sole purpose of powering nickel processing operations.¹³

⁷ L Prause, "Chapter 10 - Conflicts related to resources: The case of cobalt mining in the Democratic Republic of Congo," *The Material Basis of Energy Transitions* (2020): 153-167, <https://doi.org/10.1016/B978-0-12-819534-5.00010-6> (accessed April 1, 2023); Amnesty International, "Exposed: Child labour behind smart phone and electric car batteries," January 19, 2016, <https://www.amnesty.org/en/latest/news/2016/01/child-labour-behind-smart-phone-and-electric-car-batteries/> (accessed April 1, 2023); RAID, "Exploitation of workers in DR Congo taints electric vehicles," November 7, 2021, <https://raid-uk.org/exploitation-of-workers-in-dr-congo-taints-electric-vehicles/> (accessed December 12, 2023).

⁸ International Energy Agency, "The Role of Critical Minerals in Clean Energy Transitions," May 2021, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/executive-summary> (accessed April 5, 2023).

⁹ Ibid.

¹⁰ Other countries with significant nickel deposits include Australia (21 million metric tons), Brazil (16 million metric tons), Russia (7.5 million metric tons), New Caledonia (7.1 million metric tons), Philippines (4.8 million metric tons), Canada (2.2 million metric tons), China (2.1 million metric tons), and the United States (0.37 million metric tons). Statista, "Reserves of nickel worldwide as of 2022, by country," January 2023, <https://www.statista.com/statistics/273634/nickel-reserves-worldwide-by-country/> (accessed April 4, 2023).

¹¹ IRENA, "Geopolitics of the Energy Transition: Critical Minerals," July 2023, <https://www.irena.org/Publications/2023/Jul/Geopolitics-of-the-Energy-Transition-Critical-Materials> (accessed July 21, 2023).

¹² International Energy Agency, "GHG emissions intensity for class 1 nickel by resource type and processing route," May 2021, <https://www.iea.org/data-and-statistics/charts/ghg-emissions-intensity-for-class-1-nickel-by-resource-type-and-processing-route> (accessed April 5, 2023).

¹³ For more information about coal use at the Indonesia Weda Bay Industrial Park, see Chapter VII on Climate Impacts.

Regional Autonomy and Governance of the Mining Sector

During former President Suharto's New Order regime, corruption was widespread and governance was heavily centralized. Uneven distribution of government and private resources created economic imbalances between Java and the rest of the regions, particularly Eastern Indonesia.¹⁴ These problems remain to date.¹⁵

After the fall of the New Order era, which lasted from 1966 to 1998, the Indonesian government increased regional autonomy through the passage of laws enabling regional governments to better distribute welfare, manage their own budget and finances through regionally owned enterprises, and streamline bureaucracy.¹⁶ In addition, decentralization led to the establishment of new provinces that reflect the distribution of development and welfare across the country.¹⁷

In recent years, control over the mining sector has fluctuated between the central and regional governments. The Mineral and Coal Mining Law, which was passed in 2020, redistributed power back to the central government to issue mining permits, leaving regional governments and local officials without the authority to approve, deny, or manage mining activities.¹⁸ The highly controversial Job Creation Law, commonly known as the Omnibus Law, was also passed in 2020 despite massive public protests, weakening environmental protections, workers' rights, and

¹⁴ HY Prabowo and K Cooper, "Re-understanding corruption in the Indonesian public sector through three behavioral lenses," *Journal of Financial Crime*, 23, 4 (2016): 1028-1062, <http://dx.doi.org/10.1108/JFC-08-2015-0039>; SHB Harmadi and A Adji, "Regional Inequality in Indonesia: Pre and Post Regional Autonomy Analysis," TNP2K Working Paper, December 2020, <https://www.tnp2k.go.id/download/11191WP%2050%20Regional%20Inequality%20in%20Indonesia.pdf> (accessed October 16, 2023).

¹⁵ Corruption in Indonesia continues to be a serious problem. The country scored a 34/100 on Transparency International's Corruption Perception Index in 2022, and 92 percent of people surveyed in 2020 for the Global Corruption Barometer indicating they believed government corruption to be a big problem. Transparency International, "Indonesia: Country Data," n.d., <https://www.transparency.org/en/countries/indonesia> (accessed December 12, 2023).

¹⁶ For more information, see Law No. 22 on Regional Administration and Law No. 25 on Financial Balance Between Regional and Central Government, both of which were passed in 1999. S Usman, The SMERU Research Institute, "Regional Autonomy in Indonesia: Field Experiences and Emerging Challenges," June 2002, <https://smeru.or.id/sites/default/files/publication/regautofieldexpchall.pdf>; SHB Harmadi and A Adji, "Regional Inequality in Indonesia: Pre and Post Regional Autonomy Analysis," TNP2K Working Paper, December 2020, <https://www.tnp2k.go.id/download/11191WP%2050%20Regional%20Inequality%20in%20Indonesia.pdf>.

¹⁷ Indonesia now has 38 provinces, compared to 27 under Suharto's New Order. SD Negara and FE Hutchinson, "The Impact of Indonesia's Decentralization Reforms Two Decades On," 38, 3 (2021): 289-295, <https://www.jstor.org/stable/27096079> (accessed August 28, 2023).

¹⁸ FQ A'yun and AM Mudhoffir, "Omnibus law shows how democratic process has been corrupted," October 12, 2020, <https://indonesiaatmelbourne.unimelb.edu.au/omnibus-law-shows-how-democratic-process-has-been-corrupted/> (accessed October 16, 2023); I Pratiwi and T Firmansyah, "Izin Pertambangan Diambil Alih Pemerintah Pusat," December 11, 2020, <https://ekonomi.republika.co.id/berita/ql5bva377/izin-pertambangan-diambil-ali-h-pemerintah-pusat> (accessed October 16, 2023).

Indigenous Peoples' access to their customary land by simplifying and accelerating infrastructure development and other business activities.¹⁹

In July 2022, the central government, through the Ministry of Energy and Mineral Resources, issued regulations that gave regional governments the power to issue permits for domestic mining companies to extract non-metallic minerals, like coal or gravel.²⁰ The central government retains the power to issue permits for all metallic minerals, including nickel, and to issue permits to and monitor international companies.

Indonesia's Nickel Ore Export Ban

For more than a decade, the Indonesian government has been taking steps to ban the export of nickel ore in an attempt to develop the country's domestic mineral refining industry and boost export values. In 2009, the government passed Law No. 4 on Coal and Mineral Mining, which stipulated that companies with a mining business license or special mining business permit were required to process and refine mining products domestically within five years, effectively introducing a ban on the export of ore starting in 2014.²¹ In 2014, a Ministry of Energy and Mineral Resources regulation postponed the ban on the export of mineral ore until 2017.²² After a series of additional postponements, the nickel ore export ban was finally implemented in 2020.

In a case brought by the European Union, the World Trade Organization (WTO) found in November 2022 that Indonesia's ban on export of nickel ore violates article XI:1 of the 1994 General Agreement on Tariffs and Trade.²³ The Indonesian government rejected this decision and promptly appealed the WTO's ruling.²⁴ As of

¹⁹ Human Rights Watch, "Indonesia: New Law Hurts Workers, Indigenous Groups," October 15, 2020, <https://www.hrw.org/news/2020/10/15/indonesia-new-law-hurts-workers-indigenous-groups> (accessed July 7, 2022).

²⁰ P Guitarra, CNBC Indonesia, "Sah! Gubernur Sudah Bisa 'Lagi' Berikan Izin Pertambangan," July 7, 2022, <https://www.cnbcindonesia.com/news/20220707100201-4-353615/sah-gubernur-sudah-bisa-lagi-berikan-izin-pertambangan> (accessed August 28, 2023).

²¹ Law No. 4 of 2009 on Coal and Mineral Mining, <https://peraturan.bpk.go.id/Details/38578/uu-no-4-tahun-2009> (accessed September 19, 2023).

²² Ministry of Energy and Mineral Resources, 2014, <https://jdih.esdm.go.id/index.php/web/result/39/detail> (accessed September 19, 2023).

²³ World Trade Organization, WT/DS592/R, "INDONESIA – MEASURES RELATING TO RAW MATERIALS," November 30, 2022, https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S009-DP.aspx?language=E&CatalogueIdList=290011,290012,278387,273530,270196,259634,259248&CurrentCatalogueIdIndex=0&FullTextHash=&HasEnglishRecord=True&HasFrenchRecord=True&HasSpanishRecord=True (accessed November 28, 2023).

²⁴ Reuters, "Indonesia appeals WTO ruling in nickel dispute against EU," December 12, 2022, <https://www.reuters.com/article/indonesia-eu-nickel/indonesia-appeals-wto-ruling-in-nickel-dispute-against-eu-idUSKBN2SW1PR> (accessed March 15, 2023).

the time of writing, the appeal had not been heard by the WTO's appellate body, and Indonesia's nickel ore export ban remains in place.

In January 2023, Indonesian Minister of Investment Bahlil Lahadalia announced that the country is considering forming an "OPEC-style cartel" for nickel and other raw materials used in battery production.²⁵ A June 2023 International Monetary Fund report on Indonesia notes that foreign direct investments to Indonesia, in particular from China and Hong Kong, have increased since Indonesia implemented the export ban on nickel ore.²⁶

History of Weda Bay Nickel and the Indonesia Weda Bay Industrial Park

Nickel deposits were discovered in Halmahera in 1996 and plans to mine nickel in the region began in the late 1990s. In early 1998, PT Weda Bay Nickel (WBN), a multinational corporation, signed a contract with the Indonesian government to explore for and eventually mine nickel.²⁷ At the time, the concession granted to WBN Nickel was the largest mining concession in Halmahera, comprising nearly 55,000 hectares of land, with more than 35,000 hectares located inside Protected Forests, recognized under the 1999 Law No. 41 on Forestry.²⁸

However, the 1997-98 Asian financial crisis, which triggered the fall of President Suharto and his authoritarian New Order regime, led to years of negative and stagnant economic growth and stalled investments in Indonesia.²⁹ In addition to the financial crisis, the sectarian conflict described below in Chapter II meant that the entire mining operation was put on hold until the mid-2000s.

²⁵ J Guild, "Indonesia wants more than a nickel for natural resources," January 26, 2023, <https://www.eastasiaforum.org/2023/01/26/indonesia-wants-more-than-a-nickel-for-natural-resources/> (accessed November 30, 2023).

²⁶ International Monetary Fund, "Indonesia: 2023 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for Indonesia," June 25, 2023, <https://www.imf.org/en/Publications/CR/Issues/2023/06/22/Indonesia-2023-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-535060> (accessed November 30, 2023).

²⁷ The shareholders of Weda Bay Nickel have changed over time. Currently, Strand Minerals (in which Tsingshan Holding Group holds a 57 percent stake and Eramet holds a 43 percent stake) holds a 90 percent stake in WBN, and PT Antam holds the remaining 10 percent. Ministry of Energy and Mineral Resources, "Weda Bay Nickel," <https://modi.esdm.go.id/portal/detailPerusahaan/8025> (accessed November 30, 2023).

²⁸ As of 2023, the Weda Bay Nickel concession is 45,065 hectares. S Saturi, "Weda Bay Nickel, Berkonflik dengan Masyarakat Adat, Hutan Lindung pun Terancam," *Mongabay*, June 7, 2013, <https://www.mongabay.co.id/2013/06/07/weda-bay-nickel-berkonflik-dengan-masyarakat-adat-hutan-lindung-pun-terancam/> (accessed September 25, 2023); Ministry of Energy and Minerals Resources, "Minerba One Map Indonesia," <https://momi.minerba.esdm.go.id/public/> (accessed March 2, 2023).

²⁹ AD Ba, "Asian Financial Crisis," *Britannica*, October 6, 2023, <https://www.britannica.com/money/topic/Asian-financial-crisis> (accessed November 30, 2023); East-West Center, "Indonesia in Crisis," May 1998, <https://www.files.ethz.ch/isn/28415/api036.pdf> (accessed November 30, 2023).

The Weda Bay Nickel project began picking up steam again after Eramet gained majority control of the project in 2006. Following the 2010 release of Eramet-PT Weda Bay Nickel's Exploration and Development Environmental and Social Impact Assessment (ESIA), a report by Earthworks, a US-based environmental NGO, found that the WBN project was likely, "to harm aquatic biodiversity in the streams, rivers and the ocean for extended periods of time."³⁰ The report also predicted that the project was likely to destroy large areas of protected tropical forest and that additional social and water quality impacts would also be severe, suggesting that, "the risks of proceeding with such a project are extremely high and a precautionary approach dictates that the project not proceed."³¹

In 2015, President Jokowi announced plans to build up Indonesia's downstream minerals markets by incorporating nickel and EV production into the 2015-2035 national industrial master plan, setting the stage for the development of several large nickel industrial parks in the country, including IWIP.³²

The Indonesia Weda Bay Industrial Park (IWIP) is a 5,000-hectare integrated smelter mega-project located in Lelilef Village, Central Halmahera, North Maluku. IWIP is a joint venture between three private Chinese companies, Tsingshan Group, Huayou Cobalt, and Zhenshi Group, and was designated in 2020 as a "national strategic project" by the Indonesian government. The concept of national strategic projects was announced by President Jokowi in 2016 and prioritizes large-scale economic development projects across the country. These projects receive special benefits, including accelerated land acquisition and a guarantee that projects will not face political barriers – a guarantee that some believe has led to an increase in land conflicts between project developers and local communities, including Indigenous Peoples, and serious environmental damage.³³

IWIP began construction in August 2018 and nickel smelting operations at the industrial park began less than two years later in April 2020.³⁴ IWIP also provides space for tenants to process ferronickel, ferrochrome, stainless steel, nickel for

³⁰ While Climate Rights International is not aware of an online copy of the ESIA, we have a copy on file. Earthworks, "Supplemental Biodiversity Review of Weda Bay Nickel Project," July 2010, https://earthworks.org/files/publications/EW_review_WedaBayNickel_biodiversity.pdf (accessed July 10, 2023).

³¹ Ibid.

³² Ministry of Industry, "INDONESIA: National Industry Development Master Plan (RIPIN) 2015-2035 (Government Regulation No. 14/2015 of 2015)," <https://policy.asiapacificenergy.org/node/4174> (accessed September 25, 2023).

³³ A Barahamin, "'Infrastructure-first' approach causes conflict in Indonesia," *China Dialogue*, May 11, 2022, <https://chinadialogue.org.cn/en/business/infrastructure-first-approach-causes-conflict-in-indonesia/> (accessed September 26, 2023).

³⁴ Reuters, "Tsingshan and Eramet's Weda Bay nickel project starts production," April 30, 2020, <https://www.reuters.com/article/us-indonesia-nickel-idUSKBN22C1UK> (accessed September 15, 2023).

electric vehicle batteries, and hydrometallurgical plants. (For a fuller discussion on the companies operating at IWIP see Chapter VIII on Corporate Actors.)

Overview of Nickel Mining and Refining

Once a nickel deposit is identified, it must go through a multi-step process to be extracted and refined into a usable mineral. As shown in Figure 1, the process for nickel mining and refining includes exploration, development, active mining, and refining. This process can pose serious threats to nearby communities and the environment.

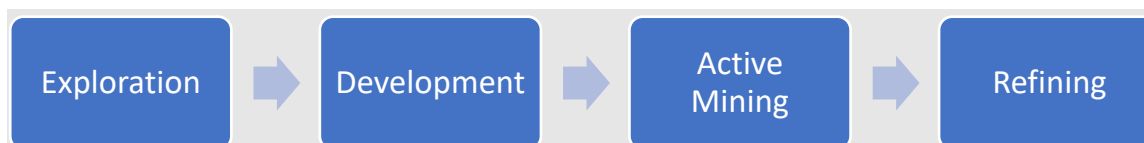


Figure 1. Nickel Mining and Refining Process.

In the first stage of the mining process, a company conducts exploratory activities to determine the location, quality, and value of the ore deposit. Laterite nickel deposits, such as those found in Indonesia, are near the Earth's surface, with nickel making up only a small percentage of the ore. Nickel ore deposits in Central Halmahera are typically between 10-20 meters deep and range from 1.2 to 2.5 percent of the earth collected.³⁵ The exploration phase may include surveys, field studies, and drilling of test boreholes to determine the quantity of nickel deposits.³⁶

In the development phase, a company constructs mining roads, brings in heavy equipment and machinery, secures necessary permits, and acquires land from landowners or the state. The company must also build substantial infrastructure to support mining operations, including employee housing, processing facilities, and utilities. In the case of WBN in Central Halmahera, this step included construction of an airport near the town of Lelilef and a port to transport ore and refined nickel. The development phase includes the clearing of land or forests to prepare for mining operations.

Active mining is defined as the physical extraction of a mineral deposit from the earth. Because laterite nickel deposits are located near the surface, they are most easily accessible through open pit mining, a type of strip mining where layers of topsoil, overburden, and ore are removed. This requires the use of heavy equipment, including excavators, bulldozers, and trucks. Open pit mining poses serious threats

³⁵ PT. ERM Indonesia, "Eramet-PT Weda Bay Nickel Exploration and Development ESIA," February 2010, page I-10, accessed March 14, 2023).

³⁶ Environmental Law Alliance Worldwide, "Guidebook for Evaluating Mining Project EIAs," July 2010, <https://www.elaw.org/files/mining-eia-guidebook/Full-Guidebook.pdf> (accessed February 22, 2023).

to the local environment, including water and air pollution, permanent habitat loss, and increased risk of erosion and landslides. This phase also includes the disposal of waste rock and tailings, often in tailing ponds, which can pollute water resources with heavy metals and toxins if not managed properly.³⁷

While outside of the scope of this report, the active mining phase ends with reclamation and closure plans, which are key to ensuring the mine does not have devastating environmental and social impacts after mining operations cease.

Once ore is extracted from the deposit, it is transported to a processing facility where it is refined. Refining, or beneficiation, is the process of milling ore and separating out the small quantities of metal from the non-metallic materials.³⁸ Because of Indonesia's ban on ore exports, ore extraction is exclusively done at domestic processing facilities and smelters. For nickel ore mined in Halmahera, it is largely transported to IWIP to be processed.

While there are multiple ways to refine nickel ore, conventional refining involves the grinding of ore into small particles, heating the materials in a rotary kiln, and extracting the metallic minerals through smelting.³⁹ High-pressure acid leach (HPAL) is an energy-intensive process used to separate nickel and cobalt from low-quality laterite nickel ores to obtain high-quality battery-grade nickel. HPAL operates by mixing milled nickel ore and an acid in a container where it is subjected to extremely high temperatures and pressures.⁴⁰ Currently, French mining company Eramet and German chemical giant BASF have plans to develop a USD\$2.6 billion HPAL plant in the Indonesia Weda Bay Industrial Park (for more, see Chapter VI).⁴¹

³⁷ For examples of the risks of exposure to pollutants in mine tailings, see: J Liu et al., "Risks to Human Health of Exposure to Heavy Metals through Wheat Consumption near a Tailings Dam in North China," *Pol J Environ Stud* 32,4 (2023): 3195-3207, <https://doi.org/10.15244/pjoes/163442>; VM Ngole-Jeme and P Fantke, "Ecological and human health risks associated with abandoned gold mine tailings contaminated soil," *PLoS One* 12,2 (2017), doi: 10.1371/journal.pone.0172517; R Liu et al., "Accidental Water Pollution Risk Analysis of Mine Tailings Ponds in Guanting Reservoir Watershed, Zhangjiakou City, China," *Int J Environ Res Public Health* 12,12 (2015): 15269-15284, doi: 10.3390/ijerph121214983; U.S. Environmental Protection Agency, "Superfund Site: BIG RIVER MINE TAILINGS/ST. JOE MINERALS CORP.," n.d., <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.Healthenv&id=0701639> (accessed December 6, 2023).

³⁸ Ibid.

³⁹ E Keskinkilic, "Nickel Laterite Smelting Processes and Some Examples of Recent Possible Modifications to the Conventional Route," *Metals* 9,9 (2019), <https://doi.org/10.3390/met9090974> (accessed April 10, 2023).

⁴⁰ H Ribeiro et al., *S&P Global*, "Rising EV-grade nickel demand fuels interest in risky HPAL process," March 3, 2021, <https://www.spglobal.com/commodityinsights/en/market-insights/blogs/metals/030321-nickel-hpal-technology-ev-batteries-emissions-environment-mining> (accessed December 5, 2023).

⁴¹ As of December 2023, neither BASF nor Eramet have made a final investment decision about the project, according to statements provided by the two companies (see Appendix I). BASF, "BASF and Eramet partner to assess the development of a nickel-cobalt refining complex to supply growing electric vehicle market," December 15, 2020, <https://www.basf.com/global/en/media/news-releases/2020/12/p-20-388.html> (accessed December 6, 2023).

At each stage of the nickel mining and refining process, industrial operations pose significant and long-lasting threats to ecosystems, biodiversity, and water resources. Open-pit mining is one of the most environmentally destructive forms of mining and can lead to permanent habitat destruction without proper remediation efforts. Mining is linked with erosion, increased risk of landslides, and flooding.⁴² Mining operations also drive deforestation; more than 1,900 km² of forest were lost to industrial mining in Indonesia between 2000 and 2019, an area one and half the size of Los Angeles or almost three times as large as the city of Jakarta.⁴³ Deforestation is a significant contributor to climate change, as carbon stored in biomass is released as carbon dioxide in the atmosphere when it is cut.

⁴² Frank Lehmkuhl and Georg Stauch, "Anthropogenic influence of open pit mining on river floods, an example of the Blessem flood 2021," *Geomorphology* 421 (2023), <https://doi.org/10.1016/j.geomorph.2022.108522>, accessed April 9, 2023; Tao Chen et al., "Landslide mechanism and stability of an open-pit slope: The Manglai open-pit coal mine," *Frontiers in Earth Science* (2023), doi: 10.3389/feart.2022.1038499, accessed April 9, 2023.

⁴³ S Giljum et al., "A pantropical assessment of deforestation caused by industrial mining," *PNAS* 119, 38 (2022), <https://doi.org/10.1073/pnas.2118273119> (accessed December 6, 2023).

II. Sectarian and Communal Conflict in North Maluku

The economic crisis of the late 1990s had a significant impact on economic, political, and social conditions in Indonesia. The crisis contributed to the fall of Suharto and then played a part in triggering violent conflicts in several parts of the country, including the Maluku island chain.⁴⁴

The Malukus experienced escalating conflict beginning in early 1999 until the signing of the Malino II Charter on February 13, 2002.⁴⁵ Sectarian conflict, particularly on Ambon and Halmahera Islands, manifested itself in collective acts of ethno-political violence using religious symbols.⁴⁶ As commercial, political, and criminal factions, long organized around religious identities, jockeyed for power in a changing landscape, conflict broke out largely between Christian and Muslim militias, but with many civilian casualties.

On Halmahera, relevant economic pressures included government plans to bring in up to 68,000 transmigrants from other parts of the country, the expansion of plantation agriculture and the development of the Nusa Halmahera Mineral gold mine in the subdistrict of Kao.⁴⁷ The conflict in North Maluku was largely between the “Laskar Putih” (white warriors), primarily ethnic Makian, Tidore, and Muslim militants from Java and other parts of Indonesia, and the “Laskar Kuning” (yellow warriors), primarily Muslim supporters of the Ternate sultanate and ethnic Kao people, a predominately Christian group with some Muslim members.⁴⁸ The names Laskar Putih and Laskar Kuning originated from the color of the headbands worn by members of each group.

⁴⁴ J Bertrand, “Nationalism and Ethnic Conflict in Indonesia,” Cambridge University Press, <https://books.google.co.id/books?id=2oZQRuT78JlC&printsec=frontcover&hl=id#v=onepage&q&f=false> (accessed December 6, 2023).

⁴⁵ The 2002 peace process was led by the Indonesian central government. U.S. Embassy of the Republic of Indonesia, “The Moluccas Agreement in Malino (Malino II) Signed to End Conflict and Create Peace in the Moluccas,” February 14, 2002, <https://www.peaceagreements.org/viewmasterdocument/579> (accessed December 6, 2023); UN RC Indonesia, “UN Consolidated Inter-Agency Appeal for the Maluku Crisis 16 Mar - 30 Sep 2000,” March 2000, <https://reliefweb.int/report/indonesia/un-consolidated-inter-agency-appeal-maluku-crisis-16-mar-30-sep-2000-0> (accessed December 6, 2023).

⁴⁶ F Mursyidi, “The ambivalent role of religion in the Ambon conflict,” November 6, 2018, <https://crcs.ugm.ac.id/the-ambivalent-roles-of-religion-in-the-ambon-conflict/> (accessed December 6, 2023); Bertrand, Jacques (2004). Nationalism and ethnic conflict in Indonesia. Cambridge University Press. ISBN 0-521-52441-5.

⁴⁷ CR Duncan, “Violence and Vengeance: Religious Conflict and its Aftermath in Eastern Indonesia,” Chapter 2, 2013, Cornell University Press, ISBN 978-0801479137.

⁴⁸ CR Duncan, “Violence and Vengeance: Religious Conflict and its Aftermath in Eastern Indonesia,” Chapter 2, 2013, Cornell University Press, ISBN 978-0801479137; A Harsono, “Race, Islam and Power,” May 2021, Monash University Publishing, ISBN 978-1925835090; Lestari, Dewi Tika, 2019, Religious Conflict Transformation through Collective Memory and the Role of Local Music. Advances in Social Science, Education and Humanities Research (ASSEHR), Volume 187: 119-123.

A 2000 Human Rights Watch report described how security forces deployed in the Maluku aggrivated the situation: “Distrust of security forces is widespread, in large part because some members of military and police units have broken ranks and taken sides in the conflict. There have long been reports that army and police weapons and ammunition have found their way into the hands of partisans, but reports of direct participation in the violence by members of the armed forces are now increasingly common, with Christian soldiers supporting Christian groups and Muslim soldiers supporting the Muslim side.”⁴⁹

The conflict, which remains one of the country’s most violent in the post-Suharto era, killed more than 10,000 people and displaced an estimated 700,000.⁵⁰ Despite de-escalation in 2002, violence remains a potentially serious risk.⁵¹ In addition, the involvement of military and police forces in the conflict is likely to influence how local communities in Central and East Halmahera experience the increased presence of military and police brigades in and around IWIP and other nickel mining areas.

⁴⁹ Human Rights Watch, “Moluccan Islands: Communal Violence in Indonesia,” May 31, 2002, <https://www.hrw.org/news/2000/05/31/moluccan-islands-communal-violence-indonesia> (accessed October 25, 2023).

⁵⁰ A Harsono, “Race, Islam and Power,” May 2021, Monash University Publishing, ISBN 978-1925835090; Lestari, Dewi Tika, 2019, Religious Conflict Transformation through Collective Memory and the Role of Local Music. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, Volume 187: 119-123.

⁵¹ M Björkhagen, “The Conflict in the Moluccas: Local Youths’ Perceptions Contrasted to Previous Research,” 2013, <https://www.diva-portal.org/smash/get/diva2:1483753/FULLTEXT01.pdf> (accessed October 25, 2023).

III. Land Grabbing, Lack of Compensation, and Failure of Free, Prior, and Informed Consent

The following section documents the many ways that nickel mining and smelting activities have threatened land rights of local communities in Central and Eastern Halmahera. Individuals interviewed by Climate Rights International reported that the process of land acquisition has been marred by land grabbing, little or no compensation, unfair land sales, and a failure to obtain free, prior, and informed consent from affected communities. In some cases, individuals faced intimidation or retaliation for refusing to sell their land or for opposing the nickel industry.

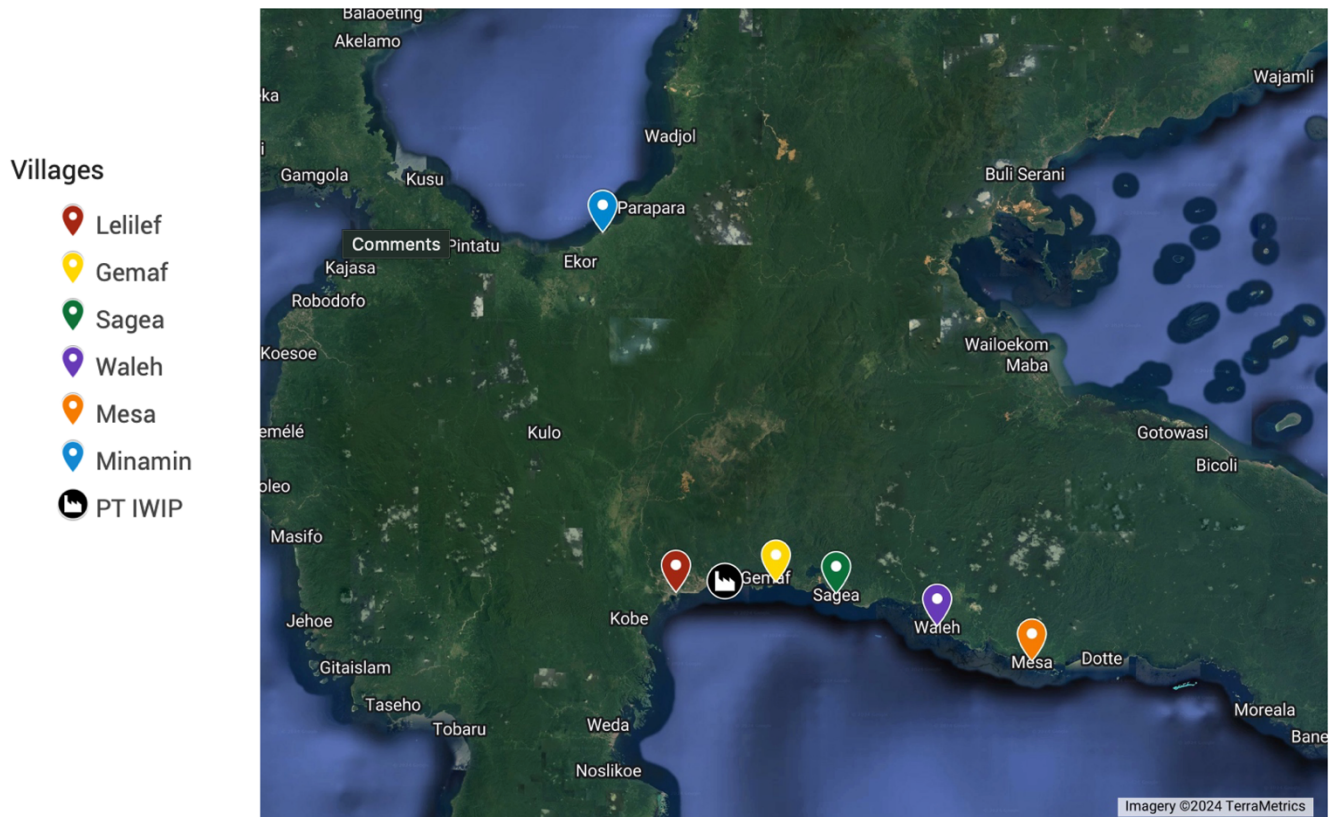
Under Indonesian law, an appraised value of a plot of land must be “adequate and fair to the entitled party,” and valuations must include structures, plants, objects, and other losses such as loss of income.⁵² In addition, throughout Indonesia, regional governments set a base land tax value, calculated on a per square meter basis, through Ministry of Finance regulation No. 150 of 2010, which regulates the Land and Business Tax.⁵³ This tax value does not include the value of crops or underlying minerals. The additional value of the land beyond the base tax value, including compensation for crops or buildings, is usually determined by both landowners and acquirers. In more developed parts of the country, such as Java, residents can find the tax value on the Regional Revenue Agency website.⁵⁴ However, online information is not posted for underdeveloped regions, including North Maluku province, so local residents are not able to easily access the tax value.⁵⁵ Because of this lack of information regarding the base value of the land for tax purposes, residents in North Maluku are unable to ascertain how a proposed land sale price compares to base market value. Climate Rights International wrote to the Ministry of Finance seeking information on how the Ministry values land and how residents in North Maluku and other less developed regions can access this information, but they did not respond.

⁵² Law No. 2 of 2012, <https://peraturan.bpk.go.id/Home/Details/39012>.

⁵³ The Land and Building Tax are calculated based on the ‘Zone’, which varies between each province. For example, the more strategic the location, the more expensive the land price. Ministry of Finance Regulation No. 150 of 2010, <https://jdih.kemenkeu.go.id/fulltext/2010/150~PMK.03~2010Per.htm>.

⁵⁴ For the neighboring province of Ambon, the province is divided into eight zones, each with a different Land and Building Tax amount, ranging between IDR200,000-IDR6,000,000 (\$13-\$390) in 2022. Ambon Mayoral Decree, August 2022, <http://jdih.ambon.go.id/uploads/lampiran/2022sk8110597.pdf>.

⁵⁵ Bapenda Maluku Utara (Revenue Agency), <https://bapendamalut.id/> (accessed December 6, 2023).



Villages near IWIP. Map data: Google, TerraMetrics.

Land Grabbing

Community members living near the Indonesia Weda Bay Industrial Park told Climate Rights International that their land had been taken, deforested, or excavated by IWIP without their consent. In some cases, land was taken from individuals who held land certificates confirming their legal ownership, while in other instances customary land held by Indigenous groups was summarily grabbed. In other cases, landowners were only compensated for a portion of their land.

In addition, local residents reported that nickel companies cut down or otherwise destroyed natural features, such as coconut trees, that were used to identify and demarcate boundaries between plots of land to expedite the land acquisition process.

Yulius Burnama, 74, said that IWIP representatives grabbed two hectares of his land in Lelilef to expand the airport in January 2019. Under Law No. 24 of 1997, if ownership of a plot of land cannot be confirmed through land registration, then the physical control of that land for twenty years or more can be used as the basis for recording land ownership. While Yulius did not hold a formal land certificate, which is common in less developed parts of Indonesia like North Maluku, he built fishing ponds on the land in 1995 and held the land for 24 years without dispute. For this

reason, Yulius claimed legal ownership of the two-hectares and fishing ponds. Yulius said that all of the 600,000 fish in his three ponds died as a result of IWIP clearing his land and destroying the fishing ponds.



One of Yulius Bernama's destroyed fishing ponds in 2019. Photo provided to Climate Rights International by Yulius Bernama.

Yulius first complained to IWIP management on May 24, 2019, about the taking of his land. On May 26, 2019, Yulius met with the External Relations division of IWIP at the Central Halmahera Police Headquarters. According to a legal complaint later filed by Yulius and shared with Climate Rights International, both Yulius and IWIP agreed that Yulius and his family would not protest or take action that would disrupt IWIP's construction or operations in exchange for compensation that would be provided after he filed a written complaint with IWIP's management, which he did a few days after the meeting. In September 2021, he still had not received any compensation, so Yulius hired a lawyer to file a legal complaint against IWIP. At the time of writing, IWIP had not provided compensation.

They [the police and village leader] said the company has paid for the land, which I never received. I even hired a lawyer to settle this case, but so far nothing.⁵⁶

Jeffry, a 33-year-old trained lawyer from East Halmahera, owned a two-hectare plot of land in Gemaf, Central Halmahera, within the current boundaries of IWIP. Jeffry told Climate Rights International that IWIP began excavating and deforesting his land without his consent and prior to any discussion of a land sale. After learning that his land was being destroyed by developers, Jeffry said he had protested the destruction of his land to IWIP. To defend his land from future destruction, Jeffry built a bamboo barricade to block access.

Jeffry told Climate Rights International that police and military personnel pressured him to relinquish his land, including by frequently visiting his home. On one occasion, police visited his house at 2 a.m. to demand that he sign a letter that said he would stop obstructing the sale of his land to IWIP, which he refused to sign.

Under pressure, in 2019, Jeffry and the company met but couldn't reach an agreement because the company refused to recognize the full extent of Jeffry's ownership of the land, despite Jeffry's possession of a land certificate. Nevertheless, IWIP continued to cut down trees on his land. Eventually, Jeffry sold his land because he felt that he had no other option.

I was indirectly threatened. I had no choice but to settle with the company. I was trying to defend my rights, my constitutional rights.⁵⁷

Jeffry says that he was only compensated for roughly 25 percent of his land, with the rest of his land taken by IWIP without compensation. According to Jeffry:

I got data from the agrarian state company that states I owned more than 4 hectares. My land measures 41,560.72 m² by GPS. The company measured 2 hectares then measured again at only 5,000 m². They only paid me for 5,000 m².⁵⁸

In a similar case, Maklon Lobe, a 42-year-old man from Gemaf, also claims that his land was illegally excavated and taken by IWIP. Maklon owned 38 hectares of farmland within the current boundaries of IWIP, where he grew cocoa, sago, and nutmeg. Without Maklon's permission, in 2018 representatives of IWIP cut down his

⁵⁶ Climate Rights International interview with Yulius Burnama, May 12, 2023, Lelilef, North Maluku, Indonesia.

⁵⁷ Climate Rights International interview with Jeffry, February 10, 2023, Gemef, North Maluku, Indonesia.

⁵⁸ Ibid.

trees and blocked the road to cut off access to his land, leaving Maklon with no option but to sell his degraded land.

Maklon met with IWIP representatives multiple times between 2018 and August 2022 to discuss compensation for his land. Maklon asked IWIP to pay IDR100,000 per square meter (m²), but IWIP only agreed to pay IDR15,000/m². Despite holding a land certificate, representatives of IWIP only agreed to pay for a portion of the land, taking the rest without compensation.

I owned 38 hectares of land, but they only paid me for 8 hectares. They said that the rest of the money was paid to someone else who claimed they owned the land... The company excavated my land without my consent while I owned it.

Maklon told Climate Rights International that, in a meeting on August 18, 2022 at the Central Halmahera police station, IWIP agreed to pay for his child's university tuition and construction material to build a dormitory for workers if Maklon accepted the offer of IDR15,000/m² for eight hectares.⁵⁹ According to Maklon, IWIP failed to keep its commitment to compensate Maklon at the agreed level, so in January 2023, he filed a lawsuit against IWIP for its failure to compensate, a copy of which was shared with Climate Rights International.

Failure to Recognize Indigenous Peoples' Customary Lands

Across Indonesia, the state has failed to recognize customary land and has instead claimed these areas as state-owned assets.⁶⁰ As of November 2023, the Indonesian government recognized 219 Indigenous territories covering a total of 3.73 million hectares, only about fourteen percent of the estimated Indigenous territories mapped in Indonesia by the Ancestral Domain Registration Agency, an independent,

⁵⁹ It is becoming common for residents in villages near IWIP to build and manage small worker dormitories to earn an income in the absence of income from traditional livelihoods, like fishing or farming. IWIP's website states that it aimed to hire roughly 36,000 employees by 2022, and many of those workers live in small one-room dormitories. In addition, mining companies across Indonesia provide scholarships for local youth as part of their corporate social responsibility practices. According to IWIP's website, it provided scholarship assistance for 77 students at the Tidore Mandiri College of Management and Computer Science in 2023 and has previously provided scholarships for 32 youth from Central and East Halmahera. IWIP, "Contribution to Economy," n.d., <https://iwip.co.id/en/home/> (accessed November 15, 2023); IWIP, "IWIP Gives Scholarship for 77 STMIK Tidore Mandiri Students," February 23, 2023, <https://iwip.co.id/en/2023/02/23/iwip-berikan-beasiswa-untuk-77-mahasiswa-stmik-tidore-mandiri-2/> (accessed November 22, 2023).

⁶⁰ M Safitri, "Dividing the Land: Legal Gaps in the Recognition of Customary Land in Indonesian Forest Areas," *Kasarinlan* 30,2 and 31,1 (2015-2016), <https://sisdam.univpancasila.ac.id/uploads/repository/lampiran/DokumenLampiran-28062021130151.pdf> (accessed December 12, 2023).

nongovernmental initiative.⁶¹ This failure by the Indonesian government to recognize customary land rights has directly contributed to land conflict for communities in East Halmahera.

Residents in Minamin and Saolat villages, in East Halmahera, told Climate Rights International that, in 2020, a mining company which they believed to be WBN took approximately 140 hectares of their customary land inside the Kao Rahai forest to develop a mining road without informing or compensating the community. While Climate Rights International was not able to confirm whether this company was indeed WBN or another mining company operating in the same area, the WBN mining concession overlaps with the taken customary land. Climate Rights International wrote to Eramet, Tsingshan, and WBN to ask how they compensated landowners, including Indigenous Peoples for their customary lands. While we did not receive a response from either Tsingshan or WBN, Eramet stated:

Besides coastal areas, most of the mining concession is located in a forested area which is owned by the government. To exploit these areas WBN goes through a forestry “borrow and use” permitting process including stringent requirements on compensation, rehabilitation, revegetation, and relinquishment. The local communities do not have legal nor customary ownership of the land in these forested areas.⁶²

Paulus Papua, a 58-year-old Minamin Indigenous community leader, said residents learned that the land was being developed when the Minamin forest guardian went into the forest and saw that a mining company had built a road.⁶³ Paulus said that the company was able to take the land because the government failed to recognize the Kao Rahai as customary forest and instead recognized it as state land that could be handed over to companies.

They came without consulting us, no dialogues whatsoever, and they came here stealing from us. It’s our customary land, but the government doesn’t recognize it. Our ancestors lived here long before independence.⁶⁴

Artones, a 49-year-old Tobelo farmer from Minamin, also stated that, before the nickel company cleared the 140 hectares of customary forest of Indigenous Tobelo

⁶¹ HN Jong, “Independent project steps in as government slow to map Indonesian ancestral lands,” *Mongabay*, November 3, 2023, <https://news.mongabay.com/2023/11/independent-project-steps-in-as-government-slow-to-map-indonesian-ancestral-lands/> (accessed November 30, 2023).

⁶² Eramet letter to Climate Rights International, December 15, 2023, Appendix I.

⁶³ Forest guardians are local and/or Indigenous community members who manage and protect forests. For more on forest guardians in Indonesia, see: Mongabay, “Mongabay series: Indonesia’s Forest Guardians,” <https://news.mongabay.com/series/indonesias-forest-guardians/> (accessed November 30, 2023).

⁶⁴ Climate Rights International interview with Paulus Papua, March 26, 2023, Minamin, North Maluku, Indonesia.

people in Minamin, company representatives did not consult with residents and never paid compensation.

At that time, we got information from our Kapita [forest guardian] that the company cleared the forest for a mining road. There's no dialogue or any kind of information from the company.⁶⁵

The prioritization of extractive industries by the government over recognition and protection of customary forests has long been a driver of conflict between Indigenous communities and governmental or private actors.⁶⁶ For example, the International Work Group for Indigenous Affairs (IWIGA) documented 301 cases of takings of customary land in Sulawesi and Kalimantan between 2019 and 2023.⁶⁷ A 2016 report by the Indonesian National Commission on Human Rights (*Komnas HAM*) found that the dispossession of Indigenous Peoples from their customary lands contributed to abuses, including forced displacement, violence, and intimidation.⁶⁸ While the report does not explicitly look at specific sectors like mining, it notes that the arbitrary takeover of indigenous forest areas for the use of other parties, including concessions for mining, logging, and plantations, has led to human rights harms, including threats to the right to a clean and healthy environment, right to education, right to traditional knowledge, right to survival and improved living standards, and right to practice and take part in traditional cultural activities.

Failure to Provide Basic Information to Local Residents and Landowners

Numerous Indigenous Peoples interviewed by Climate Rights International in Central and East Halmahera said that they were not told the purpose of land acquisition or any other details of the project by any nickel mining or smelting companies, and thus were not able to give their full Free, Prior, and Informed Consent.

⁶⁵ Climate Rights International interview with Artones, May 8, 2023, Minamin, North Maluku, Indonesia.

⁶⁶ R Ariadi, "Perampasan Tanah Adat Masih Marak, 301 Kasus Mayoritas di Sulawesi-Kalimantan," August 9, 2023, <https://www.detik.com/sulsel/berita/d-6867939/perampasan-tanah-adat-masih-marak-301-kasus-mayoritas-di-sulawesi-kalimantan> (accessed November 30, 2023).

⁶⁷ IWIGA, "The Indigenous World 2023: Indonesia," March 29, 2023, <https://www.iwgia.org/en/indonesia/5120-iw-2023-indonesia.html> (accessed October 2, 2023); R Rahman, "Konflik Masyarakat Dengan Pemerintah," *Sosioreligius: Jurnal Ilmiah Sosiologi Agama* 2:1 (2017), http://portalriset.uin-alauddin.ac.id/bo/upload/penelitian/penerbitan_jurnal/Konflik%20Masyarakat%20Dengan%20Pemerintah.pdf (accessed September 15, 2023); R Ariadi, "Perampasan Tanah Adat Masih Marak, 301 Kasus Mayoritas di Sulawesi-Kalimantan," *detiksulsel*, <https://www.detik.com/sulsel/berita/d-6867939/perampasan-tanah-adat-masih-marak-301-kasus-mayoritas-di-sulawesi-kalimantan> (accessed September 24, 2023).

⁶⁸ Komnas HAM, "National Inquiry of the Right of Indigenous Peoples on Their Territories in the Forest Zones," January 2015, https://rightsandresources.org/wp-content/uploads/2016/04/Komnas-HAM-National-Inquiry-on-the-Rights-of-Customary-Law-Abiding-Communities-Over-Their-Land-in-Forest-Areas_April-2016.pdf (accessed July 15, 2023).

In the Environmental Impact Assessment (EIA) filed by IWIP in 2018, the company claimed that it conducted a public dialogue related to the construction of IWIP on May 22, 2018 at a PT Weda Bay Nickel office in Central Halmahera.⁶⁹ IWIP's EIA states that this meeting was "attended by agencies and related parties, such as representatives of North Maluku Province Dill, Central Weda District Muspika and North Weda District Muspika, NGOs, as well as community representatives from Lelilef Sawai Village, Lelilef Waibulan Village, Central Weda District and Gemaf Village, North Weda District."⁷⁰ In addition, the EIA states that only five percent of Lelilef residents queried by IWIP had learned about the project from public consultations led by the company, with the majority of residents hearing about the project by word of mouth.⁷¹ No one interviewed by Climate Rights International reported knowing about or attending this public dialogue, and Climate Rights International is not aware of any other public dialogues or consultations hosted by IWIP prior to the approval of its EIA.

Residents interviewed by Climate Rights International claimed that information related to IWIP was not disseminated. According to Max Sigoro, a 51-year-old fisherman in Gemaf,

We residents didn't know what they were building. The company [IWIP] didn't explain what the land was for when they were buying land from people.⁷²

In Sagea, rumors about a plan to turn the village into an industrial complex with nickel smelters have been circulating for years. While a map about such a plan has been informally shared between residents verbally and over WhatsApp, no reliable information has been provided by the government or company officials, according to residents, and it is unclear where the map originated from. Climate Rights International wrote to the North Maluku Provincial Government to ask how information about the development and expansion of nickel mining and smelting operations and information about long-term spatial planning is shared with impacted communities, but we did not receive a response.

"Humam," 41, has not heard any official information about plans to industrialize Sagea, yet is concerned that the unofficial information about the nickel industry expansion in the village could harm the future of the village by destroying nature and the local culture of the Sawai people.

We saw [in unofficial information over WhatsApp] the local government's plan to change Sagea into some kind of housing complex for workers. There

⁶⁹ While the IWIP EIA is not available online, Climate Rights International has a copy of the document on file.

⁷⁰ IWIP EIA, page 4-2.

⁷¹ IWIP EIA, page 3-135.

⁷² Climate Rights International with Max Sigoro, February 8, 2023, Gemef, North Maluku, Indonesia.

are rumors too about building smelters in this area. The problem is we don't know what it is for. They don't even show us the mining permit or AMDAL [EIA], let alone explain their activities. So there's no discussion on this matter.⁷³

Mariama, a farmer in her fifties, says she has also heard rumors for years that smelters and workers' dormitories would be constructed in Sagea. She expressed concern that there has not been any transparency regarding these possible plans or other plans for nickel mining near Sagea.

I don't want this village to be the next factory. It will destroy the water resources. The land clearance process here started in 2010. They proposed to buy my land last year. But there hasn't been transparency. They haven't been transparent on the size of the mining concession.⁷⁴



Portrait of Mariama, a farmer from Sagea, November 2023. Credit: Muhammad Fadli for Climate Rights International.

In addition, residents in East Halmahera say they were left in the dark when PT Mega Haltim Mineral (MHM), a separate mining company, started acquiring land

⁷³ Climate Rights International interview with "Humam," March 28, 2023, Sagea, North Maluku, Indonesia.

⁷⁴ Climate Rights International interview with Mariama, February 9, 2023, Sagea, North Maluku, Indonesia.

without conducting consultations with residents.⁷⁵ The company offered between IDR2,500 to IDR5,000 (US\$0.16 to US\$0.32) per square meter, roughly the price of a package of instant noodles.⁷⁶ This price is approximately a fifth to two fifths of what communities in Central Halmahera have been offered by IWIP and other mining companies, which was itself viewed as inadequate compensation.

“Helmi,” 46, lives in Saolat, East Halmahera, and told Climate Rights International that local residents received no information about the purpose of land acquisition by PT MHM, leaving him unsure about how mining operations might impact his way of life. Helmi said the company did not provide documents such as an EIA or a mining permit to residents. According to Helmi:

Mentally, we're tortured, because we're scared and restless because we keep wondering about the future of our village...Without dialogues, we don't know what kind of benefits that we'll receive. We've been here for generations. We have protected nature because our lives depend on nature. If this is all gone, how are we supposed to live? ⁷⁷

Unfair Negotiations and Compensation

Residents who agreed to sell their land to nickel mining companies said they often felt like they had little to no choice in the sale or the level of compensation. Some interviewees stated that they had no choice but to sell their land because they had already lost access to their farm, as the surrounding area had been acquired by a mining company or was now within a mining concession or industrial area.

Nearly everyone who spoke to Climate Rights International about selling their land reported being unsatisfied with the low price that they had been offered or received. Many residents told Climate Rights International that they did not want to sell their land at all, and that even if they received one-time payments of money or goods, this was insufficient to compensate for the lost income and food security provided by their land. Most current and former landowners said they had inherited their land and had planned to pass it on to future generations prior to the arrival of the nickel industry. The loss of their land and the income from farming would, they said, negatively impact future generations of people in Halmahera.

Jamaluddin “Dino,” a 28-year-old man from Sagea, said he felt that he had no choice when PT First Pacific Mining (FPM), a nickel mining company, wanted to acquire his

⁷⁵ While it is unclear when MHM began acquiring land, its mining permit was issued in 2016, and since 2016, 520.65 hectares of the 13,510-hectare concession has been deforested. For more on the size of MHM, see Appendix III.

⁷⁶ Climate Rights International interview with Ike, March 25, 2023, Minamin, North Maluku, Indonesia.

⁷⁷ Climate Rights International interview with “Helmi,” May 8, 2023, Saolat, North Maluku, Indonesia.

eight-hectares of land. Dino initially refused to sell his land because the price was too low, but ultimately felt pressured to sell even though FPM did not compensate him for the crops and trees on his land.

All of the surrounding areas were sold, so I had no choice but to sell. There was no place for negotiation over the price. I tried to meet with company officials to negotiate but they said the price was fixed.⁷⁸

Local residents said that mining companies also illegally cleared land first then compensated the residents later. This practice left residents without room to negotiate because the inherent value of their farmland as a source of crops was already lost.

Felix Naik told Climate Rights International that WBN approached him in 2009 and asked to buy his 2.5-hectare land for IDR8,000/m²(US\$0.5/m²).⁷⁹ At that price, Felix and 66 other Lelilef residents refused and asked for IDR50,000/m² instead. Felix and others protested the sale of their land for a few months before giving up.

We tried everything in our disposal to get what we asked for. We tried communicating with Komnas HAM, sending a letter to the Governor, and including hiring a lawyer to fight for this matter. But all the doors were closed. We can't fight the giant because they have power and money. So we gave up.⁸⁰

During a meeting with WBN, the company offered a IDR500 million (US\$32,000) payment for Felix's land.⁸¹ Felix said there was no negotiation and he felt it was a take-it-or-leave-it pressure tactic. Felix said he felt that he had no option but to accept under one condition: that the company would provide construction material for Felix to expand his house into a worker dormitory. Like many others in Lelilef and nearby coastal communities, Felix's home is in the village of Lelilef, while his farmland was a few kilometers away. The company delivered what Felix requested: 100 sacks of cement, 100 boxes of ceramic tiles, and 125 sheets of zinc roof.

Intimidation and Legal Retaliation

⁷⁸ Climate Rights International interview with Jamaluddin "Dino," February 9, 2023, Sagea, North Maluku, Indonesia.

⁷⁹ Eramet provided Climate Rights International with details regarding land acquisition for WBN starting in 2008. In their response, Eramet stated, "PT WBN compensated all claimants even though most of them did not have a legal title." For the full response, see Appendix I.

⁸⁰ Climate Rights International interview with Felix Naik, May 12, 2023, Lelilef, North Maluku, Indonesia.

⁸¹ This payment is equivalent to IDR20,000/m².

Community members who refused to sell their land or contested the set land price told Climate Rights International they experienced intimidation, received threats, and faced retaliation by police and company representatives.

The arrival of the nickel industry has led to a growth in police and military presence in Central and East Halmahera. The involvement of police and military in the sectorial conflict in North Maluku, described in Chapter II, makes this new presence particularly concerning for some local residents. In 2021, IWIP helped build a police station for the Mobile Brigade, a special operations branch of the Indonesian National Police, near the industrial complex in Lelilef to “maintain stability, security, and order within society and industry.”⁸² The headquarters consists of two dormitories for about 140 personnel, an office, and a shooting range. In the nearby town of Weda, an Indonesian National Army outpost was established in 2020, the same year that IWIP began operations.⁸³

Although legal regulations, including Presidential Decree No. 109 of 2018 on the Acceleration on Implementation of National Strategic Projects, do not stipulate the deployment of security forces for national strategic projects, deployments of the national military and police to guard these projects have been reported.⁸⁴ The Indonesian Legal Aid Foundation has documented at least fifty cases of conflicts between national security forces and local residents regarding national strategic projects between 2017 and 2023.⁸⁵

Hernemus Takuling, a 56-year-old Sawai Indigenous community member and activist, told Climate Rights International that WBN began pressuring him to sell his farmland starting in 2009, which he refused. WBN offered to buy his land, which is located in what is now the center of IWIP, for IDR8,000/m² (US\$0.88).⁸⁶ Instead, Hernemus organized a movement with his neighbors to reject the offer. The movement did not last long, as neighbors sold their land to the company. Hernemus says he was charged with carrying a knife while blockading a WBN mining road as

⁸² Kompas, “Jaga Stabilitas Keamanan, PT IWIP Terlibat dalam Pembangunan Mako Brimob Malut,” May 2, 2021, <https://kilaskorporasi.kompas.com/kawasan-industri-weda-bay/read/2021/05/04/141121278/jaga-stabilitas-keamanan-pt-iwip-terlibat-dalam-pembangunan-mako-brimob> (accessed November 27, 2023).

⁸³ Republika, “Pangdam Pattimura Inaugurates Kodim 1512/Weda,” November 18, 2020, <https://news.republika.co.id/berita/qjytje484/pangdam-pattimura-resmikan-kodim-1512weda> (accessed November 20, 2023).

⁸⁴ Presidential Regulation No. 109 of 2020, <https://peraturan.bpk.go.id/Details/152706/perpres-no-109-tahun-2020> (accessed November 27, 2023).

⁸⁵ Indonesian Legal Aid Foundation (YLBHI), “Proyek Strategis Nasional Pemerintahan Jokowi 2017-2023 : Epicentrum Kekerasan bagi Rakyat dan Petani,” September 24, 2023, <https://ylbhi.or.id/informasi/siaran-pers/proyek-strategis-nasional-pemerintahan-jokowi-2017-2023-epicentrum-kekerasan-bagi-rakyat-dan-petani/> (accessed December 4, 2023).

⁸⁶ According to a statement provided to Climate Rights International by Eramet, WBN sold 1432.22 hectares of land near the coast that it had acquired from the Indonesian government to IWIP in 2018. Appendix I; On January 1, 2012, the exchange rate from IDR to USD was 9,093IDR to 1USD. UK Exchange Rates, “US Dollar Exchange Rates,” https://www.exchangerates.org.uk/historical/USD/01_01_2012 (accessed October 17, 2023).

part of a protest with sixty families to reject nickel mining, although he believes he was targeted as “a mastermind” of the movement. Hernemus was jailed for a year.⁸⁷ He told Climate Rights International that:

I consider this to be the total destruction of the village and marine life. They are dumping coal waste in the ocean. Fishing this coastal area is long gone. There is a change in the color and the texture of the water...The culture has been destroyed. The village is becoming more capitalistic. There's become social jealousy.⁸⁸

In Gemaf village, several interviewees said that they have been intimidated or subject to retaliation during the construction and expansion of IWIP. Max Sigoro, a Sawai fisherman in his early 50s, is one of the few residents who still refuses to sell his one-hectare plot of land to IWIP because he thinks the price offered is too low. His land is now surrounded by IWIP, so Max built a private road to access his farm, where he grows cocoa, nutmeg, and cloves. Max told CRI that his son worked for IWIP until the company fired him, which Max suspects is due to his refusal to sell his land to IWIP.

If a father wants their kids to work at IWIP, then they need to sell their land. I wanted my kids to work there but they can't because I didn't sell my land. My son used to work in the industrial park, but he was fired because I didn't sell my land.⁸⁹

Jeffry, 33, told Climate Rights International he was often visited by police and military personnel before he agreed to sell his land to IWIP.

The police and military personnel came to my home and to my farm to ask me why I wouldn't sell. They threatened to arrest me for obstructing company operations...I was a little scared. I was trying to defend my rights, my constitutional rights.⁹⁰

Jeffry said the police gave him a letter to sign saying that he would stop obstructing, but he refused to sign. The harassment stopped when he sold the land.

⁸⁷ C Belseran, *Mongabay*, “Lahan Terakhir Warga Halmahera di Tengah Pusaran Industri Nikel,” July 29, 2022, <https://www.mongabay.co.id/2022/07/29/lananterakhir-warga-halmahera-tengah-pusaran-industri-nikel-3/> (accessed March 1, 2023).

⁸⁸ Climate Rights International interview with Hernemus Takuling, February 9, 2023, Lelilef, North Maluku, Indonesia.

⁸⁹ Climate Rights International interview with Max Sigoro, February 8, 2023, Gemef, North Maluku, Indonesia.

⁹⁰ Climate Rights International interview with Jeffry, February 10, 2023, Gemef, North Maluku, Indonesia.

Maklon Lube, a Gemef resident, told Climate Rights International that police officers visited his home “countless times” before he ultimately agreed to sell his land to IWIP in August 2022. Maklon did not receive the agreed-upon compensation, so he filed a legal complaint against IWIP in January 2023. Maklon is concerned that his legal complaint may have negative ramifications on his family, including his six children, as he said he has heard stories of other children being cut off from government services because of their parents’ opposition to IWIP.

We don’t want our children to be affected. We could win, but it could affect our children...IWIP has many tentacles.⁹¹

People interviewed by Climate Rights International said that protests against mining projects were frequently met with threats of arrest and intimidation by police or military personnel. During a protest in 2020 near Minamin on a WBN mining road, hundreds of residents demanded a dialogue with the company’s management, but the company did not respond. Instead, residents were told to leave the road, which was a two-day walk from their village, by a police mobile brigade (BRIMOB) unit deployed to halt the protest. According to Paulus, a Minamin community leader:

We only want to tell the management to sit down together and discuss the issue so that we’re both happy. But they intimidated us instead, saying we don’t have any rights and legal basis and that we would only get in trouble with the government.

“Eka,” a Tobelo activist who has organized several protests in East Halmahera opposing the expansion of IWIP, stated that demonstrations were always met with what he viewed as intimidation tactics, such as by deploying dozens of police and military personnel to “guard” demonstrations.

They always threatened to arrest us for disrupting national strategic projects.⁹²

“Arif,” a Tobelo indigenous rights defender in East Halmahera, has also organized protests against mining companies. He told Climate Rights International that local police attempted to intimidate protestors. As an organizer, he is also concerned about the criminalization of other activists who have challenged mining projects.

The police have become the actor that represses the community, for the sake of protecting state interests or strategic national projects. When we staged

⁹¹ Climate Rights International interview with Maklon Lube, February 10, 2023, Gemef, North Maluku, Indonesia.

⁹² Climate Rights International interview with “Eka,” May 6, 2023, East Halmahera, North Maluku, Indonesia.

protests in 2020 and last year, police always try to disperse us and said something like, “We can arrest you for disrupting state projects.”

There has been concern over criminalization of course. We read the news about farmers and activists being criminalized by companies or governments, but we’re fighting for what is ours, so that outweighs our concerns.⁹³

⁹³ Climate Rights International interview with “Arif,” March 25, 2023, East Halmahera, North Maluku, Indonesia.

IV. Loss of Traditional Livelihoods

For generations, communities living in Central and Eastern Halmahera have depended on natural resources for their livelihoods, sustaining themselves and their families as artisanal fisherfolk, farmers, sago-makers, and hunters. These traditional livelihoods are now at risk.

People interviewed by Climate Rights International reported that the nickel industry's destruction of forests, acquisition of farmland, degradation of freshwater resources, and harm to fisheries has made it difficult, if not impossible, to continue their traditional ways of life.

Fisherfolk in Gemaf and Lelilef, coastal villages located near IWIP, say that their catch has decreased considerably since the early stage of construction of IWIP.

Max Sigoro, 51, operates a small 50-horsepower motorboat to catch skipjack tuna and groupers around the coast of Gemaf, where he has fished since his youth. Max's catch is decreasing, which he links to increased water pollution in the sea from the nickel industry. Prior to the arrival of the nickel industry, Max fished a few miles off the coast of Gemaf, but since his catch is decreasing, he now must go much further, which increases his operational costs.

Before the mining, the fish stock was abundant, the sea was clear. Now, I can't catch fish near [IWIP]. The water is dirty, and the security chases us away. The water pollution is from mining. There is oil in the water from the machines. Also, hot water from the power plants is polluting the ocean. Sometimes the water is reddish. We used to row our boats close to the shore to fish, now we have to go further out. It's more dangerous to go further out and we have to calculate the tides. It's also more expensive. The fish are the same size. But we worry about the fish being polluted.⁹⁴

Dullah Ambar, 63, has been fishing the waters near Lelilef for thirty years, but land reclamation and destruction of mangroves by IWIP to build the seaport has destroyed the fishing grounds on which he depended. Dullah used to fish in areas that are now part of IWIP, where he would catch tuna, halfbeaks, and giant trevallies, but those prime fishing grounds have been destroyed and are no longer accessible.

⁹⁴ Climate Rights International interview with Max Sigoro, February 8, 2023, Gemaf, North Maluku, Indonesia.

I used to fish around Weda Bay to Tanjung Ulie all the way through Sagea. But now the fish are getting harder to get. I'm not sure if this is because of climate change, the sea pollution, or a combination of both.⁹⁵

Felix Naik, 65, used to fish at the beach behind his house in Lelilef for additional income and for his own consumption. Three years ago, around the same time that construction at IWIP ramped up, fish became rarer, so he stopped fishing.

If you want fish, you just needed to go to the beach and use a fishing rod. It's not possible now, there are no fish near the beach anymore. So you have to buy at the market.⁹⁶

In Gemaf, Marzolina Kokene, a 50-year-old fisherwoman, has felt the impact of the industrialization at IWIP on her catch. As a traditional fisherwoman, she uses a rowboat and a fishing line to catch fish. She goes out to fish at 6 am and returns to her home in the afternoon. Prior to the development of IWIP, she was able to catch around ten kilograms of fish each day. Marzolina says she now rows two to three kilometers into the sea and brings home only about one kilogram of fish, which her family eats or she sells in Gemaf. Marzolina believes that pollution from the nearby coal power plants has affected her catch.

Before, the sea was clean. The waters were crystal clear blue. Now, it's muddy and a reddish or blackish color. I can't catch fish nearby anymore. Once I saw something black in the water and thought it was an animal so I ran away. Now I think it might have been coal spilled in the ocean.⁹⁷

Hersina Loha, 56, is from Gemaf and has been a fisherwoman since her youth. As the sole breadwinner of her family, she usually goes about five kilometers out to sea early in the morning to fish. The area where she used to fish is located near IWIP. She says that security personnel sometimes chase her off or tell her to leave. Hersina described the impacts of pollution on her livelihood.⁹⁸

My catch is decreasing...The sea is dirtier than before...I often see the waste from IWIP at the sea. All the fish near IWIP are dead, I see them floating, quite often. I think it's due to the hot water that came from the coal power plant. That's because they dumped the hot water directly into the sea.

⁹⁵ Climate Rights International interview with Dullah Ambar, May 13, 2023, Lelilef, North Maluku, Indonesia.

⁹⁶ Climate Rights International interview with Felix Naik, May 12, 2023, Lelilef, North Maluku, Indonesia.

⁹⁷ Climate Rights International interview with Marzolina Kokene, February 8, 2023, Gemaf, North Maluku, Indonesia.

⁹⁸ Scientists have established a clear link between thermal pollution and harm to marine life. For example, see: NA Gashkina et al., "Influence of Thermal Pollution on the Physiological Conditions and Bioaccumulation of Metals, Metalloids, and Trace Metals in Whitefish (*Coregonus lavaretus* L.)," *Int J Mol Sci* 21,12 (2020), doi: 10.3390/ijms21124343 (accessed December 14, 2023).

One day, the bottom of my boat also caught an oil-like sludge waste. It was black. I don't know what they are throwing into the sea, but I think it's harmful to fish or maybe even us.⁹⁹



Portrait of Marzolina Kokene, a fisherwoman from Gemaf, November 2023. Credit: Muhammad Fadli for Climate Rights International.

Waleh is a small village of 300 families located approximately 25 kilometers from IWIP. Most of the residents are farmers and fisherfolk. Nurma, a woman in her 50s, has experienced the negative impact of downstream pollution from nickel mining. Nurma and her neighbors produce sago starch, a staple food of the region, along the banks of the Ake Sil River, as production of sago starch requires constant running water. But years of nickel mining upstream has polluted the Ake Sil River, and Nurma said the river sometimes turns red or dark brown, especially during heavy rains.

⁹⁹ Climate Rights International interview with Hersina Loha, March 28, 2023, Gemaf, North Maluku, Indonesia.



A Sawai man from Waleh makes sago starch, a staple food of the region, near Waleh, North Maluku, February 2023. Credit: Climate Rights International.

It tastes different compared to sago processed using clean water from the mountain. But we have no choice because we have to keep our production. I can eat rice but sago is a better choice, it makes me full faster and longer than rice...Sago is part of our culture.¹⁰⁰

Arkipus Kone, 56, an Indigenous community leader in his 50s, is a traditional bushmeat hunter. Arkipus spends up to ten hours walking to the forest interior to hunt, where he stays for days or weeks before returning to the village with boars or deer. In recent years, Arkipus' hunt has been diminishing, which he blames on the deforestation linked to nickel mining in the mountainous forest areas where he has traditionally hunted.¹⁰¹

¹⁰⁰ Climate Rights International interview with Nurma, February 8, 2023, Waleh, North Maluku, Indonesia.

¹⁰¹ While Climate Rights International is not aware of any specific academic studies on the impacts of nickel mining in Central and East Halmahera on forest wildlife, there is strong scientific support for the claim that habitat destruction and fragmentation have a negative impact on wildlife. T Püttker et al., "Indirect effects of habitat loss via habitat fragmentation: A cross-taxa analysis of forest-dependent species," *Biological Conservation* 241 (2020), <https://doi.org/10.1016/j.biocon.2019.108368> (accessed November 30, 2023).

Because of the mining, it is rare to catch something. Before, I used to get 1 deer and 1 boar per day. Yesterday, I got nothing. It's getting rarer.¹⁰²

Artones, a Minamin community elder, used to hunt deer and boar in his youth. But a few years ago, when nickel mining companies began operating in the forest, he stopped.

I sold the antlers to make some money. It was good because I can help my relatives and send them to school, even university. Now I don't hunt anymore, because it's getting harder to find game. I just farm now. I have a few hectares of land in Minamin.¹⁰³

¹⁰² Climate Rights International interview with Arkipus Kone, February 8, 2023, Fritu, North Maluku, Indonesia.

¹⁰³ Climate Rights International interview with Artones, May 8, 2023, Minamin, North Maluku, Indonesia.

V. Violations of Cultural Rights

This is modern colonization. We're being colonized by our own government.¹⁰⁴

The Maluku Islands are home to a diverse population, with approximately 28 ethnic groups and languages, including Sawai and Tobelo. Tobelo is subdivided between Forest Tobelo and Tobelo. The Forest Tobelo, or O'Hongana Manyawa, are hunter-gatherer nomadic peoples, who avoid contact with other inhabitants of Halmahera. The Sawai and Tobelo people in Central and East Halmahera are farmers and fishers who live in coastal villages.

O'Hongana Manyawa

The O'Hongana Manyawa comprise roughly 300 to 500 individuals, living in approximately 30 different clans in the forests of Halmahera. Civil society groups told Climate Rights International that the way of life of the O'Hongana Manyawa is threatened by nickel mining activities, as mining concessions encroach on their territory.¹⁰⁵ Because the O'Hongana Manyawa people avoid exposure and contact with outsiders, civil society groups claim that they were unlikely consulted about the projects or able to give their Free, Prior, and Informed Consent to the use of their customary land.¹⁰⁶ Out of respect for their way of life, Climate Rights International did not attempt to contact them in the course of this research.

As the nickel industry has transformed Central and East Halmahera, both coastal and forest communities are experiencing existential threats to their traditional ways of life.

While Tobelo and Sawai are located in remote and isolated areas and are not participants in the national mainstream culture and economy, the National Indigenous Communities Alliance (AMAN), an NGO representing Indigenous Peoples' rights, has not officially registered the Sawai as an Indigenous community, although

¹⁰⁴ Climate Rights International interview with Novenia Ambeua, March 24, 2023, Minamin, North Maluku, Indonesia.

¹⁰⁵ Survival International, "Hongana Manyawa," n.d., <https://www.survivalinternational.org/tribes/honganamanyawa> (accessed April 5, 2023).

¹⁰⁶ Ibid.

AMAN has historically referenced the Sawai as an Indigenous group.¹⁰⁷ However, academics and civil society have designated these groups as Indigenous communities.¹⁰⁸ WBN's 2010 Exploration and Development Environmental and Social Impact Assessment (ESIA) also states that the Sawai people, "display characteristics commonly attributed to indigenous populations under the IFC's IP policy: self-identification, cultural distinctiveness, unique language, and collective attachment to traditional lands."¹⁰⁹ Importantly, Sawai people who were interviewed by CRI described themselves as Indigenous.¹¹⁰

Prior to the arrival of the nickel industry, Lelilef was home to roughly 1,440 people, most of whom were Sawai.¹¹¹ The majority of residents farmed or fished for a living, and the village was surrounded by forests and mangroves. Local residents told Climate Rights International that they would travel between the coastal communities of Gemaf and Lelilef by rowboat. After nickel was discovered, the village transformed into an economic hub, attracting new residents from across Indonesia, as well as Chinese workers.

Today, Lelilef is one of the most populous villages in North Maluku. A once paved road through Lelilef has been destroyed by thousands of worker motorbikes, mining trucks, and other vehicles that pass over it every day, kicking up dust on the newly built workers' dormitories, shops, and stalls along the main road. This current reality of Lelilef is a huge departure from what the village was like just a decade ago.

Felix Naik, 65, told Climate Rights International that no Lelilef residents are still farming as they all had sold their farmland to mining companies. He described a monumental shift in the culture of Lelilef from that of a small village of Sawai people to that of a big city, as the economic boom drove the residents toward a capitalistic way of life.

¹⁰⁷ AMAN, "Member Distribution Map," n.d., <https://www.aman.or.id/peta> (accessed October 19, 2023); AMAN, "Indigenous Peoples in North Maluku Implement Constitutional Court's Decision," July 17, 2013; <https://aman.or.id/index.php/news/read/masyarakat-adat-di-maluku-utara-laksanakan-putusan-mk> (accessed November 20, 2023).

¹⁰⁸ "The Sawai people may be considered indigenous under conventional definitions of the term which refer to long-standing association with a given area of land, a traditional way of life, and self-identification." S Marshall et al., "Access to Justice for Communities Affected by the PT Weda Bay Nickel Mine – Interim Report," page 6-7, September 2013, <https://media.business-humanrights.org/media/documents/files/media/weda-bay-public-report-oct2013.pdf> (accessed October 19, 2023); UNESCO, "Sawai in Indonesia," n.d., <https://en.wal.unesco.org/countries/indonesia/languages/sawai> (accessed November 20, 2023).

¹⁰⁹ Eramet-PT Weda Bay Nickel Exploration and Development ESIA, February 2010, Chapter 7.

¹¹⁰ While no ethnic Sawai people told Climate Rights International that they did not identify as indigenous, not all ethnic Sawai people interviewed explicitly described themselves as being indigenous.

¹¹¹ Prior to the arrival of the nickel industry, Lelilef was separated into two geographically overlapping villages based on religious beliefs, Lelilef Woebulen and Lelilef Sawai. In 2007, there were approximately 752 people in Lelilef Woebulen and 689 people in Lelilef Sawai. Corporate Accountability Research, "Case Study of the CAO's Approach to the PT Weda Nickel Mine Complaint," 2016, <https://corporateaccountabilityresearch.net/njm-report-x-weda-bay> (accessed February 14, 2023).

Nowadays, no residents have their ancestral land in Lelilef. [Their land is] all gone...[Before the nickel industry arrived], when you needed something to eat, you just took it from the farm. If you want fish, you just go to the sea to fish. But now you have to buy them, it's all about money. If you don't have money, you can't survive.¹¹²

For Novenia Ambuea, an activist and a member of the Indigenous Community Alliance (AMAN) in Minamin, East Halmahera, a half-day's drive from Lelilef, land represents her connection with her ancestors. In Novenia's spare time, she and her husband manage their 2-hectare farm where they grow coconuts, nutmegs, bananas, and vegetables. Yet this way of life is threatened as Novenia's land is now surrounded by mining concessions.

Most of us are not willing to sell our land. The land comes from our parents. If we sold it, then we also sold our history and memories. Life in Minamin is about fishing and farming, since a very long time ago. We are fisherfolk, hunters, and farmers. Our life now is still the same but soon that will change...The company [MHM] is now offering to buy our land, but I don't want to sell. Few people have already sold their land, about five people, but I don't want to, because it's our legacy for our grandchildren.¹¹³

Arkipus Kone, 56 and a father of six, feels that the quality of life in his village, Fritu, has decreased. Arkipus' Sawai ancestors founded Fritu generations ago. Now, deforestation from nickel mining has destroyed traditional crops, like nutmeg and coconuts. Some residents in Fritu, including Arkipus' family, are suffering from respiratory infections, which he blames on air pollution from the coal power plants at IWIP. Arkipus wants his children to move elsewhere to lead a better life. Nevertheless, he plans to stay in Fritu because of his cultural and ancestral ties to the land.

The biggest threat is the loss of livelihood and culture. Also, the loss of land and living space...I want to die here. This is my ancestor's land. I'm not sure about my grandkids, but I will die here.¹¹⁴

Hernemus Takuling, 56, a Lelilef village elder, said that the traditional culture and values in the village are dying as the society moved toward capitalism, valuing money and material possessions for the first time. Like many residents in Lelilef,

¹¹² Climate Rights International interview with Felix Naik, May 12, 2023, Lelilef, North Maluku, Indonesia.

¹¹³ Climate Rights International interview with Novenia Ambuea, March 24, 2023, Minamin, North Maluku, Indonesia.

¹¹⁴ Climate Rights International interview with Arkipus Kone, February 8, 2023, Fritu, North Maluku, Indonesia.

Hernemus was once a farmer and a fisherman. Since he sold his ancestral land to IWIP, he has spent most of his time advocating on behalf of farmers who defend their land against mining concessions.

Munadi Kilkoda is a member of the North Maluku House of Representatives and a Sawai activist from the village of Messa. Munadi is concerned about the impact of the nickel industry on the culture of Indigenous Peoples in Central Halmahera.

If the mining expansion continues and Indigenous Peoples are forced to leave [their traditional land], there will be a massive cultural change and people won't be able to practice their traditional way of life.¹¹⁵

The recent industrialization and influx of new residents and workers have also raised concerns that local languages will eventually become extinct, as Bahasa Indonesia, the national language, becomes the norm for people living in communities near nickel operations. "Humam," 41, a Sagea village elder, fears that the tight knit community will shift toward an individualistic community.

Being an indigenous community is about togetherness. We know each other's name, and we help each other whenever they need something. I'm not sure what will happen when more people come in to work for the companies. Probably the newcomers will outnumber the native villagers. Probably we'll use more Bahasa Indonesia instead of our own mother tongue to communicate.¹¹⁶

¹¹⁵ Climate Rights International interview with Munadi Kilkoda, February 8, 2023, Messa, North Maluku, Indonesia.

¹¹⁶ Climate Rights International interview with "Humam," March 28, 2023, Sagea, North Maluku, Indonesia.

VI. Environmental Destruction

Halmahera is home to many endemic species that are found nowhere else on earth, including 27 bird species, seven reptile species, and two mammal species.¹¹⁷

Rampant deforestation, air and water pollution, and habitat destruction from nickel mining and smelting activities are seriously harming the environment – including by destroying habitats for species located nowhere else on earth – and threatening the rights of local communities in Central and East Halmahera. According to Adlun Fikri, a 29-year-old activist from Sagea,

In the upstream area where they mine, it's destructive, degrading forest, destroying forest, and causing human rights violations. The local residents here bear the cost for global ambition [of net zero]. Western people enjoy the electric vehicle, and meanwhile we get the negative impact.¹¹⁸

Impact on the Right to Water

Nickel mining and smelting operations in East and Central Halmahera are causing pollution that threatens local residents' right to safe, clean drinking water.

Deforestation has also been linked to the degradation of freshwater resources, as forests filter water, reduce erosion, regulate rainfall, recharge groundwater tables, and buffer against the impacts of droughts and floods.¹¹⁹

For generations, communities in Central Halmahera have relied on fresh water from rivers and creeks for their daily needs. According to data from the Central Statistics Agency of North Maluku Province, only 3,878 households in all of Central Halmahera had piped water to their residence in 2022.¹²⁰ The IWIP EIA states that 75 percent of residents in Lelilef use the state-owned pipe water network, yet nearly everyone interviewed by Climate Rights International was dependent on wells, rivers, or other natural freshwater resources for their drinking water and did not have access to piped water.¹²¹

¹¹⁷ Eramet-PT Weda Bay Nickel Exploration and Development ESIA, February 2010, page I-14.

¹¹⁸ Climate Rights International interview with Adlun Fikri, December 1, 2023, Sagea, North Maluku, Indonesia.

¹¹⁹ Global Forest Watch, "Topics: Water," n.d., <https://www.globalforestwatch.org/topics/water/> (accessed December 1, 2023).

¹²⁰ While Climate Rights International was not able to access data on the total number of households in Central Halmahera, the total population of the region was 59,096 in mid-2022. Central Statistics Agency of North Maluku Province, "Number of Customers and Water Distributed 2020-2022," n.d., <https://malut.bps.go.id/indicator/7/156/1/jumlah-pelanggan-dan-air-yang-disalurkan.html> (accessed December 1, 2023); Central Statistics Agency of North Maluku Province, "Kabupaten Halmahera Tengah Dalam Angka 2023," September 8, 2023, <https://halmengkab.bps.go.id/publication/2023/02/28/93ced6eeca27f10992cbc50de/kabupaten-halmahera-tengah-dalam-angka-2023.html> (accessed October 24, 2023).

¹²¹ IWIP EIA, page 3-142.

According to research published in July 2023 by People's Emancipation and Ecological Action (AEER), an Indonesian environmental organization, the rivers around IWIP are increasingly polluted.¹²² The research found that the water from six rivers near Lelilef and Sagea is not safe to be consumed because they exceed government limits of universally common water quality parameters, including: hexavalent chromium, pH, and total dissolved solids (TDS).¹²³

Seawater samples by Professor Muhammad Aris at Khairun University in Ternate, North Maluku, and Kompas in September 2023 found that seawater in Weda Bay contained 0.02 mg/L of chromium, 0.09 mg/L of nickel, and 0.02 mg/L of copper, where government limits for these metals are set at 0.005 mg/L, 0.05 mg/L, and 0.008 mg/L respectively.¹²⁴ Fish caught in the bay by the researchers had damaged cells and tissues, likely due to heavy metal pollution.

Sagea

Many residents of Sagea rely on the Sagea River and the Bokimaruru karst area, which is also an important part of the local history, cosmology, and culture, for their drinking water.¹²⁵ The karst area is located deep in the forest of Central Halmahera and consists of an underground river and cave. Local residents have recently turned the karst into an eco-tourism site in response to the increase in population related to the nickel industry; the area is often visited by IWIP workers.¹²⁶

In August 2023, residents reported to village administration and local officials, as well as to local reporters and on social media, that pollution in the Sagea River had increased in the previous months. Adlun Fikri, 29, a youth activist from the Save

¹²² AEER, "Dilema Halmahera di Tengah Industri Nikel," July 2023, <https://www.aeer.or.id/wp-content/uploads/2023/07/Dilema-Halmahera-di-Tengah-Industri-Nikel.pdf> (accessed August 1, 2023).

¹²³ Hexavalent chromium is typically produced by industrial processes and poses serious threats to human health, including harms to the respiratory system, kidneys, liver, skin, and eyes and increased risk of cancer. AEER, "Dilema Halmahera di Tengah Industri Nikel," July 2023, <https://www.aeer.or.id/wp-content/uploads/2023/07/Dilema-Halmahera-di-Tengah-Industri-Nikel.pdf> (accessed August 1, 2023); Occupational Safety and Health Administration, U.S. Dept. of Labor, "Hexavalent Chromium," n.d., <https://www.osha.gov/hexavalent-chromium> (accessed October 25, 2023).

¹²⁴ Kompas, "Perairan Halmahera Tercemar Logam Berat," November 7, 2023, <https://www.kompas.id/baca/nusantara/2023/11/06/perairan-halmahera-tercemar-logam-berat> (accessed November 8, 2023).

¹²⁵ AMAN North Maluku, "Mendengar Cerita Rakyat Tentang Gua Boki Maruru," January 7, 2019, <https://malut.aman.or.id/2019/01/07/mendengar-cerita-rakyat-tentang-gua-boki-maruru/> (accessed December 1, 2023).

¹²⁶ Cermat, "Gua Bokimaruru dan Cerita Rakyat Orang Halmahera Tengah," May 15, 2021, <https://kumparan.com/ceritamalukuutara/gua-bokimaruru-dan-cerita-rakyat-orang-halmahera-tengah-1vkjyQmUD0h> (accessed December 1, 2023).

Sagea Coalition, told Climate Rights International that the Sagea River turned dark brown, indicating that the water is mixed with soil sediment from the upstream area, which may also indicate harmful heavy metal pollution.¹²⁷ Adlun and his organization analysed satellite images taken between March and July and found that forests had been cut to build a mining road upstream and near rivers within the concession area of Weda Bay Nickel. They demanded that upstream nickel mining be halted until further investigation.

According to information that we received, the mining road is used to mobilize heavy rigs, so we alleged that PT WBN is the one who is responsible for this...We demand that related stakeholders investigate this further and to enforce law, and demand the government evaluate the mining activities near the Sagea River.¹²⁸

On September 4, the North Maluku Provincial Environmental Agency issued a letter to PT Weda Bay Nickel, PT Halmahera Sukses Mineral, PT Tekindo Energi, PT First Pacific Mining, and PT Karunia Sagea Mineral recommending that they temporarily halt mining activities in Central Halmahera Regency to ensure freshwater resources are safe.¹²⁹ The provincial authority issued a recommendation instead of an order because under Indonesian law the provincial environment agency does not have the power to order companies to halt operations, even in cases of serious risk to human health. Only national authorities have these powers.¹³⁰

Just two days later, the head of the North Maluku Environmental Agency said that an intergovernmental investigation team made an “interim” finding that pollution of the Sagea River was not caused by mining activities and that the water was safe to use, and said that the mining companies could continue their activities, “while still paying attention to and carrying out its commitment to environmental management in its operational areas.”¹³¹ Local and national environmental groups have expressed

¹²⁷ Climate Rights International interview with Adlun Fikri, August 28, 2023, phone; W Wei et al., “Effects of Mining Activities on the Release of Heavy Metals (HMs) in a Typical Mountain Headwater Region, the Qinghai-Tibet Plateau in China,” *Intl J Environ Res Public Health* 15,9 (2018), doi: 10.3390/ijerph15091987 (accessed December 14, 2023).

¹²⁸ Climate Rights International interview with Adlun Fikri, August 28, 2023, phone.

¹²⁹ Pemerintah Provinsi Maluku Utara Dinas Lingkungan Hidup, “Rekomendasi Penghentian Sementara, Seluruuh Aktifitas Pertambangan,” September 4, 2023, <https://cri.org/wp-content/uploads/2023/09/Indonesia-Letter-Screenshot-Enviro-Agency-Bahasa.jpeg> (accessed September 10, 2023).

¹³⁰ Climate Rights International, “Indonesia: Suspend Nickel Mining in North Maluku,” September 13, 2023, <https://cri.org/indonesia-suspend-nickel-mining-in-north-maluku/>.

¹³¹ Letter from the North Maluku Provincial Government Environmental Services Agency to Weda Bay Nickel, September 6, 2023, provided to Climate Rights International by Eramet, Appendix I.

concern regarding the validity of these preliminary findings.¹³² Student activists in the neighboring city of Ternate held a series of protests at the Ministry of Environment and Forestry calling for the Ministry and provincial government to investigate the pollution.¹³³ As of the time of writing, the named mining companies continued to operate. Climate Rights International was unable to confirm whether a final water quality study had been released. Climate Rights International wrote to the North Maluku Environmental Agency seeking more information about the intergovernmental investigation, but we did not receive a response. In an email to Climate Rights International, Eramet stated, “Following Sagea river issue, since the letter from the Agency, WBN has been regularly monitoring the situation of the tributary rivers of the Sagea river and the river itself, jointly with local community, in particular with regards the tributary rivers or creeks passing near the contract of Work of WBN.”¹³⁴

Mariama, a Sawai woman in her fifties, told Climate Rights International about the importance of the Sagea River to her community,

The [Sagea] river is important for residents. [Before nickel mining,] the residents never drank bottled water...We used a bucket to take water from the river. But now we're afraid to take water from the river.¹³⁵

¹³² Forest Watch Indonesia, “DLH MALUKU UTARA TIDAK SERIUS TANGANI KASUS SUNGAI SAGEA: KESELAMATAN WARGA DIPERTARUHKAN,” September 13, 2023, <https://fwi.or.id/dlh-maluku-utara-tidak-serius-tangani-kasus-sungai-sagea-keselamatan-warga-dipertaruhkan/> (accessed September 14, 2023).

¹³³ detikSulsel, “Sungai Segea Halteng Diduga Tercemar Aktivitas Tambang, KLHK Turun Tangan,” September 21, 2023, <https://www.detik.com/sulsel/berita/d-6943590/sungai-segea-halteng-diduga-tercemar-aktivitas-tambang-klhk-turun-tangan> (accessed October 24, 2023).

¹³⁴ Eramet email to Climate Rights International, December 25, 2023, Appendix I.

¹³⁵ Climate Rights International interview with Mariama, November 29, 2023, Sagea, North Maluku, Indonesia.



In the summer of 2023, the Sagea River turned dark brown, indicating that the water is mixed with soil sediment from upstream areas. Local residents depend on the Sagea River for their drinking water. Photo credit: Save Sagea, August 2, 2023.

Lelilef

In the area around Lelilef, rivers and creeks were rerouted and became polluted with sediment during the construction of IWIP, and the degradation has continued since it started operations. The degradation was predicted by IWIP's own EIA, which stated that the project was expected to impact the Kobe, Wosea, and Sake Rivers and waters of Weda Bay.¹³⁶ The EIA states,

This [Sake] river diversion activity will have an impact on changing the landscape, increasing the rate of erosion, decreasing the quality of river water and sea water, changing river morphology, increasing the potential for flooding, and decreasing the diversity of biota along the diverted river flow. This activity also has the potential to increase public unrest and potential conflict with the community.¹³⁷

¹³⁶ IWIP EIA, page I-31 and 3-20 to 3-30.

¹³⁷ Unofficial translation using Google Translation, IWIP EIA, page 2-12-13.

According to the EIA, once operational, IWIP's water use would be more than 58 million cubic meters of water annually, sourced from the Sake and Kobe Rivers, two of the largest rivers in Central Halmahera.¹³⁸ The Kobe River is located roughly ten kilometers from the industrial complex, and the Sake River is located within IWIP's boundaries. According to residents, the Kobe River is now too polluted to be a source of drinking water, so locals must dig wells and buy gallons of water. While IWIP has built a water treatment plant to provide water in the industrial complex, residents in Lelilef have difficulties accessing clean water.

Like in Sagea, Lelilef community members worry that upstream mining is impacting water quality in local rivers. "Hana," 45, described how the formerly blue-colored rivers in Lelilef are now dark brown and dirty, which she linked to the mining activities in the upstream area.

The Kobe River in Lelilef is now very dirty. It's totally different than what it used to be. I remember as a kid playing in the river, bathing or just enjoying the water. But we can't do that anymore. We used to drink from the river, but now it's impossible unless we want to contract disease. I think it was due to the mining activities.¹³⁹

For most of his life, Felix Naik, 65, used water from the Ake Doma River, a small river near Lelilef, as well as the Kobe and Sake Rivers for nearly everything. Yet since mining companies came to the area, the rivers have become polluted and he now avoids using the water. Felix has dug three wells to survive, but the water is not enough to support his family, so he must buy gallons of water every two to three days for IDR5,000 (US\$0.33) per gallon.

After the rain, the rivers would turn up so clean we would bathe in them and drink the water. But now it's impossible. We didn't need wells because we could just take it from the rivers... There is also deforestation on the river upstream. So if it rains, the river turns dark brown and muddy.¹⁴⁰

Beyond gauging the health of freshwater resources by visible pollution, residents do not have access to basic information about the quality of water. According to IWIP's EIA, the freshwater quality prior to the construction of IWIP met government water quality standards for nearly all parameters.¹⁴¹ Significantly, neither IWIP, local mining companies, nor the government provide publicly available water quality monitoring

¹³⁸ IWIP EIA, page 2-37

¹³⁹ Climate Rights International interview with "Hana," March 30, 2023, Lelilef, North Maluku, Indonesia.

¹⁴⁰ Climate Rights International interview with Felix Naik, May 12, 2023, Lelilef, North Maluku, Indonesia.

¹⁴¹ Total dissolved solids in some rivers were higher than the government standards due to the presence of microorganisms that decompose organic plant material. IWIP EIA, page 3-27-28.

systems, and there is no public information on water quality accessible to local residents.

According to government regulations, companies must ensure that water quality meets specified environmental quality thresholds and must provide the government with accurate information on water quality. Government Regulation No. 22 of 2021 on Protection and Environmental Management stipulates that companies must monitor air and water quality and sets technical standards for wastewater discharge.¹⁴² Law No. 32 of 2009 requires companies or businesses to provide the government with accurate and transparent information on their environmental management, including their water pollution monitoring.¹⁴³ Article 98 of that law states that companies or businesses that fail to comply with environmental quality thresholds may face three to ten years in prison and be subject to IDR3 billion to IDR10 billion in fines (US\$196,000 to US\$656,000). Article 62 stipulates that the government must develop a public information system on the environment.¹⁴⁴ Climate Rights International wrote to the Ministry of Environment and Forestry to inquire about its response when companies violate environmental laws, how it monitors pollution related to mining and smelting, and if and how air and water quality information is shared with the public. As of the time of writing, we did not receive a response.

Yulius Burnama, 74, explained that the pollution of rivers near Lelilef forced him to dig wells, but water in those wells is scarce during the dry season. Yulius has a four-meter deep well in front of his house, but the well only has a few centimeters of water during the dry season, which is insufficient for his family's needs. When the well doesn't provide enough water, Yulius and his son collect water from the Tabelik River, a few kilometers from Lelilef. Yulius believes this river to be less polluted, although there is no public information available on the Tabelik River's water quality.

Rivers are gone and polluted. The rivers were our assets, where people used to make sago, drink, wash, and so on. I remember the depth of the big river can reach an adult's head, now it's shallow and destroyed. The creeks are gone. All because the upstream is destroyed.¹⁴⁵

A 64-year-old fisherman, Dullah Ambar, lives a few meters away from the sea in Lelilef. In 2020, he spent about IDR40 million (US\$2,600) to drill a 28-meter deep

¹⁴² Regulation No. 22 of 2021, <https://peraturan.bpk.go.id/Details/161852/pp-no-22-tahun-2021> (accessed December 4, 2023).

¹⁴³ Law No. 32 of 2009, <https://bsilhk.menlhk.go.id/wp-content/uploads/2023/05/UU-32-2009-PPLH.pdf> (accessed December 4, 2023).

¹⁴⁴ Climate Rights International searched for such a system, but was not able to find one that shared this information for the project area.

¹⁴⁵ Climate Rights International interview with Yulius Burnama, May 12, 2023, Lelilef, North Maluku, Indonesia.

well one kilometer from his house because he could not rely on the water from the rivers anymore to meet his basic needs.

We used to rely on small creeks for drinking water. Now they are destroyed. We didn't have wells back then, but now it's a must.¹⁴⁶

Impact on the Right to a Healthy Environment and the Right to Health

In addition to the climate impacts of coal use at IWIP (see Chapter VII), coal combustion is a major contributor to air and water pollution, and harms human health and biodiversity. Coal-fired power plants emit particulate matter, sulfur dioxide, nitrogen oxides, heavy metals, and other pollutants that are linked with increased risks of respiratory and lung diseases, cancer, heart disease, and neurological impacts.¹⁴⁷ In addition, coal plants require large quantities of water to cool the steam used to generate electricity and to control air pollution.¹⁴⁸ If this wastewater is discharged into the sea without being cooled, it creates thermal pollution in seawater, which can harm marine flora and fauna.¹⁴⁹ Air pollutants emitted by coal plants, including coal ash, threaten local flora and fauna, including by exposing fish and other aquatic species to toxic heavy metals.¹⁵⁰

Pollution and Human Health Risks

Residents in villages near IWIP are concerned that newly developed health problems, including respiratory and skin problems, are related to pollution from the construction and operation of IWIP and its coal-fired power plants. Although public health studies needed to attribute these health problems to industrial nickel activities at IWIP and surrounding nickel mines have yet to be conducted, the types of health impacts reported are consistent with what other studies suggest may be expected from exposure to pollution from nickel mines, smelters, and coal-fired power plants.¹⁵¹

¹⁴⁶ Climate Rights International interview with Dullah Ambar, May 13, 2023, Lelilef, North Maluku, Indonesia.

¹⁴⁷ J Gasparotto and KDB Martinello, "Coal as an energy source and its impacts on human health," *Energy Geoscience* 2,2 (2021): 113-120, <https://doi.org/10.1016/j.engeos.2020.07.003> (accessed July 17, 2023).

¹⁴⁸ Union of Concerned Scientists, "How it Works: Water for Coal," October 5, 2010, <https://www.ucsusa.org/resources/water-coal#:~:text=Water%20is%20used%20to%20extract,control%20pollution%20from%20the%20plant> (accessed July 17, 2023).

¹⁴⁹ Union of Concerned Scientists, "Coal and Water Pollution," December 6, 2017, <https://www.ucsusa.org/resources/coal-and-water-pollution> (accessed October 25, 2023).

¹⁵⁰ MO Tretyakova et al., "Effects of coal microparticles on marine organisms: A review," *Toxicology Reports* 8 (2021): 1207-1219, <https://doi.org/10.1016/j.toxrep.2021.06.006> (accessed July 17, 2023).

¹⁵¹ Tracy Glynn, "Community-Based Research on the Environmental and Human Health Impacts of a Laterite Nickel Mine and Smelter in Sorowako, Indonesia," January 2006, accessed January 26, 2023.

Despite nickel's common usage in commercial and industrial products, direct exposure to nickel is harmful for human health. Studies have found that exposure to nickel is linked to increased rates of cancer, respiratory illnesses, and allergic contact dermatitis.¹⁵² Workers in nickel smelters and refineries are at particular risk for developing nickel-related illnesses, including increased incidence of lung cancer due to inhalation of airborne nickel.¹⁵³ In addition, communities near and downstream from nickel mining and smelting operations may be at increased risk of asthma, nasal congestion, and skin tumors due to ambient air pollution and toxic dust fall.¹⁵⁴

In addition to the health hazards posed by nickel itself, air, water, and soil pollution from nickel mining and smelting operations can threaten human health. Dust, ash, and other particulate matter are released during mine blasting operations, from dirt mining roads, and from coal plants. Exposure to particulate matter is linked with serious health problems, including asthma, heart attacks, decreased lung function, and premature death.¹⁵⁵

Since IWIP became operational, respiratory infection cases have reportedly increased, particularly in nearby Lelilef, with respiratory infections in Lelilef increasing from 434 in 2020 to 1,100 in 2022 according to media reports.¹⁵⁶ A lack of population data specific to the Lelilef village makes it difficult to ascertain whether this rise in respiratory illnesses corresponds to an increase in population, increase in pollution, or a combination of the two.¹⁵⁷ The regional health agency does not publish public information about respiratory diseases or other related ailments, as it only releases information about infectious illnesses like HIV/AIDS and tuberculosis.¹⁵⁸

¹⁵² Barbara Zambelli, Vladimir N Uversky and Stefano Ciurli, "Nickel impact on human health: An intrinsic disorder perspective," *Biochimica et Biophysica Acta* 1864 (2016): 1714-1731, accessed January 26, 2023, <https://doi.org/10.1016/j.bbapap.2016.09.008>; Jurgen Buekers et al., "Assessment of human exposure to environmental sources of nickel in Europe: Inhalation exposure," *Science of The Total Environment* 521-522 (2015): 359-371, accessed March 29, 2023, <https://doi.org/10.1016/j.scitotenv.2015.02.092>.

¹⁵³ Han Ming Shen and Qi Feng Zhang, "Risk Assessment of Nickel Carcinogenicity and Occupational Lung Cancer," *Environmental Health Perspectives Supplements* 102 (1994): 275-282, accessed February 5, 2023.

¹⁵⁴ Tracy Glynn, "Community-Based Research on the Environmental and Human Health Impacts of a Laterite Nickel Mine and Smelter in Sorowako, Indonesia," January 2006, accessed January 26, 2023.

¹⁵⁵ U.S. Environmental Protection Agency, "Health and Environmental Effects of Particulate Matter (PM)," August 23, 2023, <https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm> (accessed October 24, 2023).

¹⁵⁶ Kalesang, "Nasib Orang Sawai dalam Kepungan Industri Nikel," March 20, 2023, https://kalesang.id/2023/03/20/nasib-orang-sawai-dalam-keputusan-industri-nikel/#google_vignette (accessed October 24, 2023).

¹⁵⁷ Population for the entire region of Central Halmahera, which includes Lelilef, was 42,815 at the 2010 census and estimated to be 59,096 in mid-2022. Central Statistics Agency, "Statistics of Indonesia 2011," September 15, 2011, <https://www.bps.go.id/publication/2011/09/15/cc59f813e9baba19038c0089/statistik-indonesia-2011.html> (accessed October 24, 2023); Central Statistics Agency of North Maluku Province, "Kabupaten Halmahera Tengah Dalam Angka 2023," September 8, 2023, <https://haltengkab.bps.go.id/publication/2023/02/28/93ced6eca27f10992cbc50de/kabupaten-halmahera-tengah-dalam-angka-2023.html> (accessed October 24, 2023).

¹⁵⁸ Central Statistics Agency of North Maluku Province, "Health," n.d., <https://malut.bps.go.id/subject/30/kesehatan.html#subjekViewTab3> (accessed October 24, 2023).

Marlene Burhan, a 47-year-old housewife in Lelilef, recently began suffering from coughing and difficulty breathing. She told Climate Rights International that she thinks the nickel industry operations have negatively affected her health and the health of her family. Marlene's three and six-year-old granddaughters, who live with her, also have breathing problems.

I felt like I was dying. I couldn't breathe. The nickel mining impacts my health. Now, I have phlegm and coughing. I also get flu symptoms. The coughing happens two or three times per month. I think it's from the dust from the mining.¹⁵⁹

In addition to respiratory problems, Marlene has also developed skin rashes, which she attributes to washing with polluted well water.

Max Sigoro, a 51-year-old fisherman in Gemaf, lives roughly two kilometers away from IWIP's coal power plants and believes that his family suffers from respiratory problems linked to air pollution from the industrial park. Max reported that from his home he often sees smoke rising from coal smokestacks, with black ash frequently falling on his home and on clothing hung outside to dry. While there is a private clinic and a public health center near Gemaf, Max and his family rarely visit doctors due to financial constraints.

It is especially worse when the wind is blowing. My grandchildren are also coughing.¹⁶⁰

¹⁵⁹ Climate Rights International interview with Marlene Burhan, February 9, 2023, Lelilef, North Maluku, Indonesia.

¹⁶⁰ Climate Rights International interview with Max Sigoro, February 8, 2023, Gemaf, North Maluku, Indonesia.

VII. Climate Change Impacts

Despite the need for nickel in renewable energy technologies, nickel mining and smelting in Central Halmahera is directly contributing to the climate crisis. To power industrial smelting operations, IWIP, when fully operational, will include twelve new coal-fired power plants totaling 3.78 gigawatts (GW) of coal capacity. This is a staggering amount of coal capacity, greater than the capacity of coal plants in operation in 74 separate countries, including Brazil, Romania, and Spain.¹⁶¹

IWIP and other industrial parks in Indonesia are largely harnessing energy from captive coal plants, meaning that the coal burned directly feeds industrial operations and does not connect to the electricity grid. They are not accounted for in the country's report to the Just Energy Transition Partnership, in which the government's stated goal is for renewable energy to account for 44 percent of the national electricity mix by 2030.¹⁶²

Indonesia's Just Energy Transition Partnership

At the Group of 20 (G20) meeting in November 2022, the European Union and several G20 governments, including the US, Japan, France, and Germany, pledged US\$20 billion to support Indonesia's energy transition through the Just Energy Transition Partnership (JETP). After agreeing to the JETP, President Jokowi declared, "Indonesia is committed to using our energy transition to achieve a green economy." A Comprehensive Investment and Policy Plan (CIPP) for Indonesia's JETP was released in November 2023 and set a goal of "peaking power sector emissions by 2030 at an absolute value of no more than 290 MT CO₂ (down from a 2030 baseline value of 357 MT CO₂), and immediately declining thereafter on an ambitious trajectory, and achieving net zero emissions in the power sector by 2050, including with the accelerated retirement of coal plants, conditional on international support."¹⁶³

While the plan for Indonesia's JETP envisions steps to reduce coal use, shockingly it excludes emissions from captive coal plants, including the coal plants at IWIP. It also calls for emission reduction technologies that could pose additional threats to human rights and the climate, including untested and controversial fuels like ammonia and hydrogen fuels which are both currently produced using fossil fuels, and proposes insufficient human rights safeguards.¹⁶⁴

¹⁶¹ Global Energy Monitor, "Coal-fired Power Capacity by Country (MW)," July 2022,

https://docs.google.com/spreadsheets/d/1W-gobEQuggTR_PP0iczlCrdaR-vYkJOdzstSsCjXuKw/edit#gid=822738567 (accessed July 17, 2023).

¹⁶² Climate Action Tracker, "Indonesia," December 4, 2023,

<https://climateactiontracker.org/countries/indonesia/policies-action/> (accessed December 14, 2023).

¹⁶³ JETP Indonesia, "Comprehensive Investment and Policy Plan 2023," November 2023, <https://jetp-id.org/cipp> (accessed November 5, 2023).

¹⁶⁴ Climate Rights International, "Comment on the Comprehensive Investment and Policy Plan (CIPP) for Indonesia's Just Energy Transition Partnership (JETP)," November 16, 2023, <https://cri.org/comment-cipp-indonesia-jetp/>.

Deforestation for nickel mining is also contributing to climate change. Using geospatial analysis, Climate Rights International documented that nickel mining operations are cutting thousands of hectares of tropical rainforest, eliminating a critical carbon reserve. Industrial nickel operations are also responsible for the destruction of local mangroves, which store large amounts of carbon dioxide and help local communities adapt to the impacts of the climate crisis.

The following sections will detail the climate consequences of IWIP and the mining operations that supply nickel ore.

Coal-Fired Power Plants

The build out of coal at IWIP is disastrous for the climate and comes at a time when global leaders and experts are calling for an end to all new coal development. In 2021, the International Energy Agency announced that there could be no new coal plants, and existing unabated coal plants must be phased out by 2040, if we are to meet the global climate goal of reaching net zero emissions by 2050.¹⁶⁵ Indonesia has made commitments to reduce its reliance on coal, including a September 2022 presidential decree to eliminate coal generation by 2050.¹⁶⁶

Despite these and other commitments by the country's highest leadership to reduce coal use, Indonesia's coal generation is at an all-time high, in part due to the recent build out of coal plants at IWIP and other large industrial parks across the country. Coal consumption in Indonesia increased a whopping 33 percent from 2021 to 2022, contributing to a 20.3 percent increase in the country's greenhouse gas emissions in just one year.¹⁶⁷ Studies have found that large industrial parks, including IWIP and other nickel smelting sites on Sulawesi and Obi Islands, account for more than 15 percent of the country's coal use.¹⁶⁸ According to the CIPP, Indonesia will have more than 30 GW of captive coal capacity by 2030, largely due to the buildout of captive coal plants for nickel smelting.¹⁶⁹

¹⁶⁵ International Energy Agency, "Net Zero by 2050," May 2021, <https://www.iea.org/reports/net-zero-by-2050> (accessed July 17, 2023).

¹⁶⁶ Presidential Regulation No. 112 of 2022, <https://peraturan.bpk.go.id/Home/Details/225308/perpres-no-112-tahun-2022> (accessed December 4, 2023).

¹⁶⁷ Ministry of Energy and Mineral Resources, "Handbook of Energy & Economic Statistics of Indonesia 2022," <https://www.esdm.go.id/assets/media/content/content-handbook-of-energy-and-economic-statistics-of-indonesia-2022.pdf> (accessed December 4, 2023); HN Jong, *Mongabay*, "Indonesia's coal burning hits record high — and 'green' nickel is largely why," July 3, 2023, <https://news.mongabay.com/2023/07/indonesias-coal-burning-hits-record-high-and-green-nickel-is-largely-why/> (accessed July 6, 2023).

¹⁶⁸ I Morse, *China Dialogue*, "Coal-powered industrial parks test Indonesia's climate pledges — and China's too," March 30, 2022, <https://chinadialogue.net/en/energy/coal-powered-industrial-parks-test-indonesias-climate-pledges-and-chinas-too/> (accessed July 17, 2023).

¹⁶⁹ JETP Indonesia, "Comprehensive Investment and Policy Plan 2023," November 2023, <https://jetp-id.org/cipp> (accessed November 5, 2023).

At least five units at IWIP are in operation, with an additional seven units under construction, according to data from Global Energy Monitor.¹⁷⁰ Six of the twelve units at IWIP will have a capacity of 250 megawatts (MW) and six units will have a 380 MW capacity. Table 1 provides an overview of the owners, parent companies, and capacity of each unit.

According to the IWIP Environmental Impact Assessment (EIA), coal burned at IWIP is sourced from the Indonesian province of Kalimantan, home to the country's largest coal mines. Coal mined in East and South Kalimantan is known to be low-caloric, with an average caloric content of 4,200 kcal per kilogram, and thus particularly high-emitting "dirty coal."¹⁷¹ One study on coal sourced from Kalimantan found that the quality was too low to sell in the international market.¹⁷²

The planned coal capacity exceeds what was stated in IWIP's EIA, which said that the project would only have 2,000 MW of coal capacity, or 1,780 MW less than currently expected.¹⁷³ At this lower capacity, the EIA projected IWIP power plants would use at least 8,860,000 tons of coal per year. Based on the same rate of coal use, we estimate that the planned twelve coal plants at IWIP will consume 16,745,400 tons of coal per year at full operation.

The IWIP EIA states that burning coal emits 2.84 kg CO₂ per ton.¹⁷⁴ If the planned twelve coal plants consume 16,745,400 tons per year, coal generation at IWIP, once fully operational, will emit 47,556,936 kg CO₂ each year, according to the figures and logic of the IWIP EIA.

Yet, even these emissions calculations appear to underestimate the impact of the plants, as the U.S. Environmental Protection Agency estimates that 47,556,936 kg CO₂ is equivalent to the annual emissions from only 0.013 coal plants, not twelve coal plants.¹⁷⁵

¹⁷⁰ Global Energy Monitor, "Weda Bay power station," October 8, 2023, https://www.gem.wiki/Weda_Bay_power_station# (accessed October 24, 2023).

¹⁷¹ IWIP EIA, page 1-22.

¹⁷² R Rahman et al., "Coal quality characterization in East Kalimantan Province, Indonesia: review from proximate, ultimate and calorific value analyses," *IOP Conf. Series: Earth and Environmental Science* 473 (2020) 012100, doi:10.1088/1755-1315/473/1/012100 (accessed December 6, 2023).

¹⁷³ IWIP ANDAL, page 1-21.

¹⁷⁴ IWIP ANDAL, page 6-118, Table 6-67.

¹⁷⁵ U.S. Environmental Protection Agency, "Greenhouse Gas Equivalencies Calculator," July 2023, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results> (accessed October 25, 2023).

Table 1. Coal-Fired Power Plants at the Indonesia Weda Bay Industrial Park.¹⁷⁶

Unit No.	Owner	Parent	Capacity (MW)
1	PT Weda Bay Energi	Tsingshan Holding Group	250
2	PT Yashi Indonesia Investment	Huakai Investment Co Ltd; Tongxiang Wushi Trading Co Ltd; Tsingshan Holding Group Co Ltd; Zhejiang Huajun Investment Co Ltd; Zhenshi Holding Group Co Ltd; others	250
3	PT Youshan Nickel	Tsingshan Holding Group	250
4	PT Libai Indonesia Metal	Metallurgical Corporation of China Ltd; Tsingshan Holding Group Co Ltd	250
5	Huayue Nickel Cobalt	Zhejiang Huayou Cobalt Co. Ltd., Tsingshan Holding Group	250
6	PT Huake Nickel Indonesia	Zhejiang Huayou Cobalt Co., Ltd. (70%), Tsingshan Holding Group (30%)	250
7	PT Sunny Metal Industry	Walsin Lihwa, Tsingshan Holding Group	380
8	PT Angel Nickel Industry	PT Angel Nickel Industry (Nickel Industries Ltd. and Tsingshan Holding Group)	380
9	PT Angel Nickel Industry	PT Angel Nickel Industry (Nickel Industries Ltd. and Tsingshan Holding Group)	380
10	PT Indonesia Weda Bay Industrial Park	Tsingshan Holding Group	380
11	PT Indonesia Weda Bay Industrial Park	Tsingshan Holding Group	380
12	PT Indonesia Weda Bay Industrial Park	Tsingshan Holding Group	380

Mining and refining are often powered with fossil fuels, exacerbating the climate crisis. Particularly since much of the nickel mined and processed at IWIP is intended to produce batteries for electric vehicles as part of the transition to renewable energy, it is critical that renewable energy be used as much as possible to power IWIP. In a statement provided to Climate Rights International, Huayou noted that IWIP plans to construct 2GW of solar power generation projects by 2026, 300MW of

¹⁷⁶ For more information about many of the companies listed in this table, see Chapter VIII on Corporate Actors. Global Energy Monitor, “Weda Bay power station,” October 8, 2023, https://www.gem.wiki/Weda_Bay_power_station# (accessed October 24, 2023).

wind power generation projects (timeline unknown), and 50 electric mining trucks in 2024.¹⁷⁷ Yet, it is unclear whether these renewable energy projects will offset any of the new captive coal capacity at the industrial park.

A study by the World Bank found that technical solutions, including increasing energy storage for renewables, geothermal energy, and wind energy, will be necessary to minimize greenhouse gas emissions from nickel mining.¹⁷⁸ Nickel smelters in other parts of the world are already setting the path for decarbonization of nickel processing. For example, BHP Nickel West, the largest nickel producer in Western Australia, is working with renewable energy company Enel Green Power to build wind turbines capable of generating the annual electricity consumption of one of its nickel smelters.¹⁷⁹ At IWIP and other nickel industrial parks, existing coal plants should be rapidly decommissioned, proposed plants and plants under construction should be canceled, and project proponents should rapidly build out wind, solar, and other renewables.

Deforestation

Tropical forests and mangroves are key carbon sinks, absorbing more carbon than they release. They are also important habitats for wildlife and a critical source of sustainable livelihoods. Nickel mining and smelting activities in Halmahera are threatening these essential ecosystems.

Nickel laterite deposits in Indonesia are located near the earth's surface, so are accessed through open-pit mining. This type of superficial mining requires the removal of topsoil to access nickel, and thus directly contributes to deforestation.

In total, 142,964 hectares of land in Central Halmahera are currently held within 66 mining concessions.¹⁸⁰

Climate Rights International was able to access geospatial data for 31 of the 66 nickel mining concessions in Central and East Halmahera, based on public data available on the Ministry of Mining and Mineral Resources website and deforestation data by Global Forest Watch. Using satellite imagery to map the amount of forest

¹⁷⁷ Huayou Cobalt letter to Climate Rights International, December 25, 2023, Appendix I.

¹⁷⁸ World Bank Group, "Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition," 2020, <https://pubdocs.worldbank.org/en/961711588875536384/Minerals-for-Climate-Action-The-Mineral-Intensity-of-the-Clean-Energy-Transition.pdf> (accessed September 27, 2023)

¹⁷⁹ S Vorrath, Renew Economy, "Turbines go up at Flat Rocks wind farm, to power BHP nickel mines," August 4, 2023, <https://reneweconomy.com.au/turbines-go-up-at-flat-rocks-wind-farm-to-power-bhp-nickel-mines/> (accessed September 27, 2023).

¹⁸⁰ C Belseran, *Mongabay*, "Ketika Tambang Nikel 'Kuasai' Hutan Halmahera Tengah," December 6, 2022, <https://www.mongabay.co.id/2022/12/06/ketika-tambang-nikel-kuasai-hutan-halmahera-tengah/> (accessed August 28, 2023).

loss, we determined that approximately **5,331 hectares** within those 31 nickel mining concessions has been deforested since the mining permits were issued.¹⁸¹

When deforestation occurs, carbon stored in both plant matter and soil may be released into the atmosphere, turning this carbon sink into a source of emissions. While the precise carbon emissions embodied in a forest are dependent on many factors, including forest age, species, and soil depth, a report by the Indonesian government to the UNFCCC concluded that one hectare of secondary dryland forest in the province of Maluku – the most commonly deforested land type in the region – stores 382.75 metric tons greenhouse gases (CO₂e) per hectare.¹⁸²

Using this emission factor, roughly **2.04 million metric tons of CO₂e** has been emitted from deforestation in the 31 nickel mining concessions in Central and East Halmahera for which we have data.¹⁸³ Those emissions are roughly equivalent to the annual emissions of 450,000 cars.¹⁸⁴ The true climate impact from nickel mining in Central and East Halmahera is likely much higher, since this calculation does not include deforestation data for 35 of the 66 mining concessions. Because a significant stretch of forest is currently held in mining concessions but not yet deforested, the climate impact of nickel-related deforestation in Central Halmahera will likely grow with future mining activities.

In addition to deforestation from nickel mining, IWIP is located on roughly 5,000 hectares of formerly forested land.¹⁸⁵ Shockingly, IWIP's December 2018 EIA failed to include an estimate of forested land that the project would destroy. Biannual satellite imagery analysed by researchers at the IPB University in Bogor also shows that significant deforestation within the boundaries of IWIP began by the end of 2018.¹⁸⁶

¹⁸¹ See Appendix IV.

¹⁸² Republic of Indonesia, "Indonesia Third Biennial Update Report Under the United Nations Framework Convention on Climate Change," page A-47, 2021, https://unfccc.int/sites/default/files/resource/IndonesiaBUR%203_FINAL%20REPORT_2.pdf (accessed July 17, 2023).

¹⁸³ This value was calculated by multiplying the 5331 hectares of deforested forest by the emission factor of 382.75 CO₂e per hectare.

¹⁸⁴ U.S. Environmental Protection Agency, "Greenhouse Gas Equivalencies Calculator," July 2023, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results> (accessed October 25, 2023).

¹⁸⁵ IWIP, "Industrial Park Location," n.d., <https://iwip.co.id/en/industrial-park-location/> (accessed December 6, 2023).

¹⁸⁶ IPB SSRS Association, IPB University, "V5 – Data Stat Spatio-temporal Program for Indonesia Weda Bay Industrial Park (IWIP) in North Maluku," *Data Stat Center*, <https://datastat-ssrs.users.earthengine.app/view/volume-05> (accessed July 12, 2023).



Satellite images of the Indonesia Weda Bay Industrial Park taken in December 2017, prior to development of the park, and in December 2023. The white line shows the boundary of the park, as indicated by the IWIP 2018 EIA. Source: PS Tropical Visual Biannual Archive (December 2017), Planet Tropical Normalized Monthly Mosaic (December 2023), courtesy of Mighty Earth.

Mangrove Destruction

Mangroves are salt water tolerant forests, located along shorelines. They are biodiversity hotspots and provide habitat for birds, fish, and other marine species, and are a source of livelihoods for local communities.

Mangroves are also significant nature-based solutions to the climate crisis, as they sequester blue carbon, or carbon stored in marine ecosystems, and absorb a much higher quantity of CO₂ than similarly sized terrestrial ecosystems. Studies have found that mangroves can store three to five times more CO₂ than terrestrial forests, making their conservation critical for preventing the worst impacts of the climate crisis.¹⁸⁷



A fisherperson navigates through mangroves in Sagea, November 2023. Credit: Muhammad Fadli for Climate Rights International.

According to Weda Bay Nickel's 2010 Exploration and Development Environmental and Social Impact Assessment (ESIA), the project area included 110 hectares of

¹⁸⁷ Climate Rights International interview with Dr. Dadan Mulyana, Senior Researcher at the Researcher Association on Marine and Fisheries Social-Ecological System, June 13, 2023.

mangroves, with 59 species present.¹⁸⁸ According to local residents who were interviewed by Climate Rights International, those mangroves are no longer present. Multiple individuals also told CRI that IWIP cut mangroves to build its port.

While the industrial area required the construction of a port to receive and ship materials, including coal, nickel ore, and smelted nickel products, the IWIP EIA failed to analyze whether the destruction of mangrove forests was necessary for the building of the port. In fact, the IWIP EIA did not provide any information about the area of mangrove forests within the project area or the impact the project would have on mangroves.

While Climate Rights International was not able to confirm the area of mangroves destroyed, data from the Indonesian government to the UNFCCC calculates that one hectare of primary mangrove forest in the province of Maluku stores 454.81 metric tons CO₂e, while secondary mangrove forest stores 347.64 metric tons CO₂e.¹⁸⁹

Increased Vulnerability to the Climate Crisis

The nickel industry's greenhouse gas emissions in Central Halmahera are not only driving climate change, but they are also increasing the vulnerability of local communities to some of the most severe impacts of the climate crisis, including sea level rise and increased flooding from extreme weather events.

According to the Intergovernmental Panel on Climate Change's Sixth Assessment Report, global mean sea level is projected to rise 0.15 to 0.23 meters by 2050 if warming is capped at 1.5°C, and 0.20 to 0.29 meters under higher emissions scenarios.¹⁹⁰ For coastal communities in Central Halmahera, this amount of sea level rise could be catastrophic.

Meanwhile, the destruction of mangroves, coral reefs, and seagrass beds is decreasing coastal communities' ability to adapt to sea level rise and coastal flooding events. Mangroves help communities adapt to the impacts of climate change by reducing the risk of coastal flooding, minimizing coastal erosion, and absorbing energy from high tides and waves generated by extreme weather

¹⁸⁸ As opposed to an EIA, which is prepared for the Indonesian government, the ESIA's main objectives were to "document early 2010 conditions at the project site, assess in general terms the history and impacts of the past 13 to 14 years of operations and document impact mitigation measures that have been, or will be, implemented." PT Weda Bay Nickel ESIA, page. viii.

¹⁸⁹ Republic of Indonesia, "Indonesia Third Biennial Update Report Under the United Nations Framework Convention on Climate Change," page A-47, 2021, https://unfccc.int/sites/default/files/resource/IndonesiaBUR%203_FINAL%20REPORT_2.pdf (accessed July 17, 2023).

¹⁹⁰ IPCC, "Climate Change 2023 Synthesis Report: Summary for Policymakers," 2023, https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf (accessed December 6, 2023).

events.¹⁹¹ Studies have found that coral reefs and seagrass meadows can mitigate the impact of sea level rise by attenuating waves and stabilizing marine sediments.¹⁹² Climate Rights International was not able to confirm whether coral reefs or seagrasses have been affected near the industrial area, but increased pollution from onshore industrial and mining activities and pollution from sea vessels can harm both coral and seagrass beds.¹⁹³

Because of the destruction of these critical natural protections by project developers, people living in coastal villages near IWIP may be at a higher risk of facing the consequences of climate change, including sea level rise, saltwater intrusion in drinking water, loss of indigenous and other local knowledge, and displacement.¹⁹⁴



A seawall protecting houses in Waleh, Halmahera from sea level rise, coastal flooding, and extreme weather events.

¹⁹¹ Rik Gijssman et al., “Nature-Based Engineering: A Review on Reducing Coastal Flood Risk With Mangroves,” *Frontiers in Marine Science* 8 (2021), <https://doi.org/10.3389/fmars.2021.702412> (accessed October 24, 2023).

¹⁹² R.K. James et al., “Climate change mitigation by coral reefs and seagrass beds at risk: How global change compromises coastal ecosystem services,” *Science of the Total Environment* 857 (2023): 3, <https://doi.org/10.1016/j.scitotenv.2022.159576> (accessed December 6, 2023).

¹⁹³ <https://phys.org/news/2019-08-reveals-impact-coral-reefs.html> (accessed October 24, 2023); <https://phys.org/news/2019-12-scientists-struggle-seagrass-coastal-pollution.html> (accessed October 24, 2023)

¹⁹⁴ IPCC, *Special Report on the Ocean and Cryosphere in a Changing Climate*, Chapter 4, 2019, <https://www.ipcc.ch/srocc/chapter/chapter-4-sea-level-rise-and-implications-for-low-lying-islands-coasts-and-communities/> (accessed March 15, 2023).

The Maluku Islands are already experiencing – and are projected to continue experiencing – an increase in precipitation due to climate change.¹⁹⁵ Deforestation is a significant trigger of flooding and may compound the impacts of increased precipitation.¹⁹⁶ According to IWIP’s EIA, construction of the industrial park and subsequent changes in the natural watershed were expected to cause erosion, water quality degradation, extinction of river biota and marine life, and floods.¹⁹⁷ People living downstream of mining concessions also told Climate Rights International that floods have occurred more frequently and with higher intensity in the past four years. At least six floods occurred near Lelilef between 2020-2022.¹⁹⁸ In September 2023, flash floods ripped through IWIP, leading to the death of a worker.¹⁹⁹

In villages in South Wasile district, East Halmahera, where mining companies have operated since the 1990s, floods are also now more frequent. Residents in Minamin told Climate Rights International that they have suffered serious flood damage. For example, Sius, a 68-year-old farmer, said that a flood occurred during a recent bout of heavy rain, and 50 cm of flood water inundated his house in Minamin.

The flooding [is getting] worse. We’ve never experienced that kind of flooding before. Whenever there’s heavy rain for hours, the creek will turn to flash flood with mud, and it will reach our homes. It came from the forest upward because they cut down the trees.²⁰⁰

¹⁹⁵ World Bank Group and Asian Development Bank, “Climate Risk Country Profile: Indonesia,” 2021, https://climateknowledgeportal.worldbank.org/sites/default/files/2021-05/15504-Indonesia%20Country%20Profile-WEB_0.pdf (accessed November 20, 2023).

¹⁹⁶ M Rogger et al., “Land use change impacts on floods at the catchment scale: Challenges and opportunities for future research,” *Water Resour Res* 53,7 (2017) 5209-5219, doi: 10.1002/2017WR020723 (accessed January 2, 2024).

¹⁹⁷ IWIP EIA, page I-31 and 3-20 to 3-30.

¹⁹⁸ For news accounts of recent flooding events, see: (1) W Yahya, “Kawasan Industri IWIP Terendam Banjir, Aktivitas Smelter Dihentikan Sementara,” August 26, 2022, <https://timesindonesia.co.id/peristiwa-daerah/292966/kawasan-industri-iwip-terendam-banjir-aktivitas-smelter-dihentikan-sementara>; (2) T Redaksi, “Banjir Tenggelamkan sejumlah Kampung di Lingkar Tambang PT IWIP,” September 8, 2021, <https://beritadetik.id/2021/09/08/banjir-tenggelamkan-sejumlah-kampung-di-lingkar-tambang-pt-iwip/>; (3) Halmahera Post, “Hujan Deras, Jalan di Kawasan PT IWIP Terendam,” April 13, 2022, <https://halmaherapost.com/2022/04/13/hujan-deras-jalan-di-kawasan-pt-iwip-terendam/>; (4) Indotimur, “Banjir ‘Kepung’ Bandara PT. IWIP dan Rumah Warga,” July 13, 2022, <https://indotimur.com/nusantara/banjir-kepung-bandara-pt-iwip-dan-rumah-warga>; (5) T Redaksi, “Banjir Kepung Tambang PT IWIP Halmahera Tengah, Akses Jalan Lintas Weda-Patani Lumpuh Total,” August 20, 2022, <https://beritadetik.id/2022/08/20/banjir-kepung-tambang-pt-iwip-halmahera-tengah-akses-jalan-lintas-weda-patani-lumpuh-total/>; (6) T Redaksi, “Banjir di PT IWIP Kembali Lumpuhkan Jalan Nasional Halmahera Tengah, 2 Karyawan Terbawa Banjir,” September 13, 2022, <https://beritadetik.id/2022/09/13/banjir-di-pt-iwip-kembali-lumpuhkan-jalan-nasional-halmahera-tengah-2-karyawan-terbawa-banjir/> (all last accessed December 2, 2023).

¹⁹⁹ Petromindo, “IWIP worker killed in flash floods,” September 15, 2023, <https://www.petromindo.com/news/article/iwip-worker-killed-in-flash-floods> (accessed October 24, 2023).

²⁰⁰ Climate Rights International interview with Sius, March 25, 2023, Minamin, North Maluku, Indonesia.

While the Central Halmahera administration and IWIP have made joint efforts to reduce the likelihood of flooding in Lelilef by introducing flood mitigation schemes, the effects of continued deforestation of upstream forests and habitat destruction will likely make future flood events more common.²⁰¹ In addition, the activities of the nickel industry are likely to have contributed to increased flooding in the first place through deforestation and changes to local watersheds.

²⁰¹ Antara News, "Pemkab Halmahera Tengah gandeng PT IWIP normalisasi Sungai Kobe cegah banjir," January 23, 2023, <https://ambon.antaranews.com/berita/151401/pemkab-halmahera-tengah-gandeng-pt-iwip-normalisasi-sungai-kobe-cegah-banjir> (accessed August 10, 2023).

VIII. Corporate Actors

Dozens of domestic and foreign-based companies are engaged in nickel mining and refining in Central and East Halmahera, including at IWIP. Within IWIP, there is an overlapping web of Chinese, Australian, French, and other international companies in operation to refine and smelt nickel ore. In addition, more than 60 mining concessions operate in Central Halmahera.

Climate Rights International was not able to find an official list of all current and proposed projects within IWIP. Neither the government nor IWIP provided this when asked. This lack of transparency and the complex web of actors makes it difficult for community members and local activists to identify which companies are responsible for specific human and environmental harms and enables companies to act with little or no accountability.

Table 2 lists the corporate actors operating and invested in nickel refining and smelting projects at IWIP. While we were not able to confirm whether this list of projects is complete, the following projects are significant in scale and make clear the massive amount of investment and growth in Indonesia's nickel industry in recent years.

Table 2. Corporate Actors with Active or Planned Operations and Investments in Nickel Processing at IWIP, by Project.

	IWIP	Sonic Bay	WBN	PT Yashi Indonesia Investment	PT Youshan Nickel Indonesia Co	PT Angel Nickel Industry	PT Huayu Nickel Cobalt	CNGR / Rigueza Joint Venture	Huaxiang Refining Indonesia	Other Facilities at IWIP
BASF		X								
CNGR								X		
Eramet		X	X							
EVE Energy							X			
Glaucous							X			
Huayou	X				X		X		X	X
Lindo							X		X	
Nickel Industries						X				
POSCO										X
Rigueza								X		
Strive									X	
Tsingshan	X		X	X	X	X	X			
Zhejiang Huajun Invest.				X						
Zhenshi Group	X			X						

The following section discusses key corporate actors, their stated commitments to environmental and human rights due diligence, as well as the downstream supply chain uses of nickel mined and refined in Central and East Halmahera.²⁰² While many of the companies have made public commitments relating to sustainability in their supply chains and protection of the environment, those statements are undermined by the reality on the ground in Weda Bay, as documented in this report.

IWIP Shareholders

IWIP is a joint venture of three Chinese companies: Tsingshan Holding Group, Huayou Cobalt, and Zhenshi Holding Group.

Tsingshan Holding Group

Tsingshan Holding Group (Tsingshan) is a privately-owned Chinese conglomerate and one of the world's largest producers of nickel and stainless steel.²⁰³ In 2023, Tsingshan was ranked 257 on the Fortune 500 Global Companies list, with annual revenue of US\$54.711 billion.²⁰⁴ The massive company includes five corporate groups and more than 500 subsidiaries, none of which are publicly listed on major Chinese domestic or overseas capital markets.²⁰⁵ It has been reported that multiple Tsingshan subsidiaries, including nickel companies, have been fined by Chinese agencies for violating environmental regulations in China, including by operating without undergoing environmental review and approval and emitting high levels of air pollution.²⁰⁶

Tsingshan holds a 40 percent stake in IWIP and is also heavily invested in the Indonesia Morowali Industrial Park (IMIP), a major industrial hub for nickel smelting on the island of Sulawesi.²⁰⁷

²⁰² See Appendix IV for more information about companies' environmental and human rights policies and commitments.

²⁰³ Bloomberg, "Tsingshan Holding Group Co Ltd," n.d., <https://www.bloomberg.com/profile/company/TSINGZ:CH#xj4y7vzkg> (accessed October 20, 2023).

²⁰⁴ Fortune, "Global 500: Tsingshan Holding Group," 2023, <https://fortune.com/company/tsingshan-holding-group/global500/> (accessed September 26, 2023).

²⁰⁵ Sina Finance (via Internet Archive), "起底青山控股, 低调的“世界镍王,” April 3, 2022, <https://archive.ph/3Za6g> (accessed September 18, 2023).

²⁰⁶ China Internet Information Center (via Internet Archive), "青山控股千亿镍合金产业链深陷环保困局," May 30, 2015, <https://web.archive.org/web/20230810215149/http://finance.china.com.cn/roll/20150530/3148909.shtml> (accessed August 23, 2023).

²⁰⁷ P Ginting and E Moore, The People's Map of Global China, "Indonesia Morowali Industrial Park (IMIP)," November 22, 2021, <https://thepeoplesmap.net/project/indonesia-morowali-industrial-park-imip/> (accessed October 20, 2023).

As Tsingshan is a privately held company, there is limited public information about its policies and practices, internal finances, and governance structure. No information is available about its climate, environmental, or human rights policies, and whether it has made sustainability commitments.

This lack of information is further obscured by its use of subsidiary companies. At least three subsidiaries of Tsingshan – Shanghai Decent Investment Group, Yongrui Holdings, and Yongqing Technology Co. – are invested in nickel processing plants at IWIP. Shanghai Decent Investment Group is a joint stakeholder in multiple projects at IWIP, including PT Angel Nickel Industry and PT Yashi Indonesia Investment.

In 2021, Chinese president Xi Jinping announced that China would no longer finance overseas coal plants. Following this commitment, Tsingshan Holding Group announced it would, “follow the spirit,” of the announcement and stop investing in foreign coal projects.²⁰⁸ Yet, Tsingshan continues to support new coal projects at IWIP and is listed as a parent of all twelve captive coal units operating, under construction, or planned at IWIP, according to Global Energy Monitor.²⁰⁹

Climate Rights International wrote to Tsingshan requesting more information on their policies and practices at IWIP, but they did not respond as of the time of writing.

Zhejiang Huayou Cobalt Co., Ltd.

Zhejiang Huayou Cobalt Co., Ltd. (Huayou) holds a 30 percent stake in IWIP, and is also jointly invested in three nickel refining projects at IWIP. Huayou has been publicly listed on the Shanghai Stock Exchange since 2015, and its top investors include Chinese state-owned institutions, including the China Construction Bank and the Agricultural Bank of China.²¹⁰

Huayou cobalt mining operations have been subject to international scrutiny for instances of child labor and other human rights abuses linked with a wholly owned subsidiary of Huayou in the Democratic Republic of the Congo.²¹¹ Huayou and other

²⁰⁸ Shanghai Metals Market, “Tsingshan Group Promises Not to Establish New Overseas Coal Power Projects,” September 22, 2021, <https://news.metal.com/newscontent/101604035/tsingshan-group-promises-not-to-establish-new-overseas-coal-power-projects> (December 6, 2023).

²⁰⁹ Global Energy Monitor, “Weda Bay power station,” October 8, 2023, https://www.gem.wiki/Weda_Bay_power_station# (accessed October 24, 2023).

²¹⁰ See Annex 1 for more information of the top ten shareholders in Huayou for 2022; names translated from Chinese to English using Google Translate. Shanghai Stock Exchange, http://english.sse.com.cn/markets/dataservice/xbrl/companyinfo/?stock_id=603799 (accessed May 22, 2023).

²¹¹ Amnesty International and Afreewatch, “This is What We Die For: Human Rights Abuses in the Democratic Republic of the Congo Power the Global Trade in Cobalt,” 2016, <https://www.amnesty.org/en/wp-content/uploads/2021/05/AFR6231832016ENGLISH.pdf> (accessed April 1, 2023).

companies have also faced legal action in the United States over child labor allegations in the Democratic Republic of the Congo.²¹² In 2020, Huayou committed to stop purchasing cobalt from individual miners, responding to concerns over child labor.²¹³

Huayou reports that it has developed a six-step framework on due diligence for its mining supply chain, which includes a risk assessment, independent third-party auditing, and reporting. In its 2022 due diligence report, the company describes the importance of sustainable development, respect for human rights, and a reduction in its ecological impact in the DRC and Indonesia, where it operates cobalt and nickel mining activities.²¹⁴ The report further describes the company's due diligence practices in Indonesia:

Huayue Company has completed a due diligence via questionnaires for nickel laterite ore suppliers with whom Huayue Company has partnered, required partners to comply with our ESG policy and supply chain code of conduct, and to meet the standards of the policy in terms of human rights, labour rights, ethics, environmental sustainability and responsible mining, etc. In 2022, a third party was invited to conduct an ESG assessment of the major nickel laterite ore suppliers of Huayue Company's project in accordance with international standards. Based on the results of the assessment, the Company monitored the suppliers to make corrective actions as required.²¹⁵

Considering the human rights and environmental impacts described in the previous chapters, it is unclear how these due diligence policies are being implemented at IWIP and whether any measures have been effectively taken to mitigate the impacts of Huayou's activities. Climate Rights International was could not find any public commitments or publicly available policies regarding FPIC from Huayou.

Climate Rights International wrote to Huayou requesting more information on their policies and practices at IWIP, including results of any audits at its facilities at IWIP

²¹² A Kelly, "Apple and Google named in US lawsuit over Congolese child cobalt mining deaths," *The Guardian*, December 16, 2019, <https://www.theguardian.com/global-development/2019/dec/16/apple-and-google-named-in-us-lawsuit-over-congolese-child-cobalt-mining-deaths> (accessed September 25, 2023).

²¹³ Business and Human Rights Resources Centre, "China's biggest cobalt producer agrees to stop buying from individuals in DRC due to concerns over child labour," May 29, 2020, <https://www.business-humanrights.org/en/latest-news/chinas-biggest-cobalt-producer-agrees-to-stop-buying-from-individuals-in-drc-due-to-concerns-over-child-labour/> (accessed September 25, 2023).

²¹⁴ Huayou Cobalt, "Report of Due Diligence of Responsible Mining Supply Chain 2022," n.d., https://v4.cecdn.yun300.cn/100001_1903055002/Report%20of%20Due%20Diligence%20of%20Responsible%20Mining%20Supply%20Chain%202022.pdf (accessed September 18, 2023).

²¹⁵ Because the company's name is originally in Mandarin Chinese, there are multiple English spellings, including Huayou and Huayue. Huayou Cobalt, "Report of Due Diligence of Responsible Mining Supply Chain 2022," n.d., https://v4.cecdn.yun300.cn/100001_1903055002/Report%20of%20Due%20Diligence%20of%20Responsible%20Mining%20Supply%20Chain%202022.pdf (accessed September 18, 2023).

and actions taken to prevent and mitigate human rights and environmental harms. In its response, Huayou stated, “Huayou has conducted internal audit by the ESG department from headquarters to facilities at the IWIP. Now facilities in IWIP are implementing CA to fill the gaps identified by the assessment. We plan to do third party audit of ESG system by ERM, and RMI or RCI assessment for responsible sourcing.”²¹⁶ For Huayou’s full response, see Appendix I.

Huayou has reportedly taken steps to respond to the climate crisis. The company was awarded the “Carbon Neutral Pioneering Demonstration Award” at the Second Carbon Neutral Boao Conference in November 2022 for developing a “zero-carbon” factory in China, and Huayou’s Chengdu cathode material base received a PAS 2060 carbon neutral declaration certification certificate.²¹⁷ According to its 2022 Environmental, Social, and Corporate Governance (ESG) report, “Huayou Cobalt incorporates climate change issues into the ESG governance framework, and the board of directors is responsible for overall supervision and implementation, and establishes a top-down climate change response plan” and “will analyze short-, medium-, and long-term climate change risks (both physical and transitional) for all assets and propose strategies to address them.”²¹⁸ The 2022 ESG report also states that Huayou will, “strive to achieve carbon neutrality starting from the material side in 2030 and strive to realize the carbon neutral vision of the entire industry chain before 2050.”²¹⁹

Despite Huayou’s commitments to carbon neutrality and sustainable practices, its actions at IWIP may undermine these pledges. As one of the three stakeholders of IWIP and a developer of additional nickel refining projects within the industrial site, it is directly responsible for the development of new coal-fired power plants, including a 250-MW coal plant as part of its joint venture with Tsingshan. Climate Rights International asked Huayou to respond to questions regarding its investment in coal in Indonesia, including at IWIP, but it stated that it does, “not have control of management or operations at the park,” as it is a minority shareholder.²²⁰ Huayou’s response stated that it plans to install solar power in its IWIP facilities in 2024, but it is unclear how much solar capacity will be installed.

²¹⁶ Huayou Cobalt letter to Climate Rights International, December 25, 2023, Appendix I.

²¹⁷ Huayou Cobalt (via Internet Archive), “双碳行动：发布行动报告，签署行动宣言，荣获“碳中和先行示范奖”！,” November 15, 2022, <https://archive.ph/1Z5ys#selection-2387.0-2390.0> (accessed September 20, 2023); “成功案例：华友钴业获得碳中和认证，开启“零碳”新纪元,” (via Internet Archive), May 10, 2023, <https://archive.ph/PVo5M> (accessed September 20, 2023).

²¹⁸ Huayou Cobalt, “2022 Environment, Social, and Corporate Governance (ESG) report,” <https://www.huayou.com/social12.html> (accessed September 20, 2023).

²¹⁹ Ibid.

²²⁰ Huayou Cobalt letter to Climate Rights International, December 25, 2023, Appendix I.

Zhenshi Holding Group Co., Ltd

Zhenshi Holding Group Co., Ltd. (Zhenshi) has a 30 percent stake in IWIP. The investment company, which is based in Jiaxing, China, is privately held, so there is limited public information about its governance, finances, and policies. In addition to its investments in nickel and minerals, Zhenshi also holds investments in a variety of industries, including wind power, fiberglass manufacturing, health care, real estate development, and steel. According to the company's website, Zhenshi has more than 50 holding and joint-stock subsidiaries in both China and other countries, including Indonesia.²²¹

Despite the size of Zhenshi and its investments, Climate Rights International was unable to determine if the company has established due diligence policies, human rights policies, or other ESG considerations. We are not aware of any public statements made by Zhenshi about its climate commitments or whether it has made any pledges to not fund overseas coal-fired power plants. In addition, we were unable to find any public commitments made by the company to uphold human rights in its business activities and supply chains. We wrote to Zhenshi seeking more information about their policies and practices, but they did not respond.

Joint Ventures and Other Corporate Actors at IWIP

A growing number of companies have built or announced plans to build industrial facilities within IWIP, essentially acting as tenants of IWIP, to produce nickel materials, including nickel needed for EV batteries.

²²¹ Zhenshi Holding Group, "International Zhenshi," n.d., <https://en.zhenshigroup.com/zsgj.html> (accessed December 2, 2023).

Table 3: Joint venture projects and other nickel refining projects at IWIP.

Company Names	Company Country of Origin	Description	Annual output (metric tons)
Sonic Bay			
Eramet	France	Proposed HPAL plant	60,000 tons nickel; 7,000 tons cobalt
BASF	Germany		
PT Yashi Indonesia Investment			
Zhenshi	China	Ferronickel smelter	300,000
Shanghai Decent Investment Group (subsidiary of Tsingshan)	China		
Zhejiang Huajun Investments	China		
PT Youshan Nickel Indonesia Co.			
Zhejiang Huayou Cobalt	China	Nickel sulphate, battery component plant	130,000
Tsingshan	China		
PT Angel Nickel Industry			
Shanghai Decent Investment Group (subsidiary of Tsingshan)	China	4 nickel-pig-iron furnaces, 380 MW coal plant	36,000
Nickel Industries Ltd.	Australia		
PT Huayu Nickel Cobalt			
Zhejiang Huayou Cobalt	China	Nickel sulphate and cobalt plant	120,000 nickel, 15,000 cobalt
Yongrui (owned by Tsingshan through subsidiary Yongqing Technology)	China		
EVE Energy Co., Ltd.	China		
Glaucous International Pte. Ltd.	Singapore		
Lindo Investment Pte. Ltd.	Singapore		
CNGR / Rigqueza International joint venture			
CNGR	China	3 nickel matte facilities	120,000
Rigqueza International Pte. Ltd.	Singapore		
Huaxiang Refining Indonesia			
Zhejiang Huayou Cobalt, through subsidiary Huayao International Investment	China	Nickel sulphate plant	50,000
Strive Investment	Singapore		
Lindo Investment Pte. Ltd.	Singapore		
Other Facilities at IWIP			
Huafei project, Zhejiang Huayou Cobalt	China	HPAL plant	120,000 nickel, 15,000 cobalt
POSCO	South Korea	Proposed nickel matte plant	52,000

The **PT Angel Nickel** project is a joint venture between Australia-based **Nickel Industries, Ltd.** and **Shanghai Decent Investment Group** and includes four rotary-kiln-electric furnaces capable of producing 36,000 metric tons of nickel pig iron per year. The project also includes a 380 KW coal plant.²²² Nickel Industries, Ltd. is publicly listed on the Australian Securities Exchange. Its top shareholders include HSBC, JP Morgan, Citicorp, Shanghai Decent Investment Group, and BNP Paribas (see Appendix II for more information about Nickel Industries shareholders). Climate Rights International wrote to Nickel Industries requesting more information on their Angel Nickel project at IWIP, including results of any audits at its facilities at IWIP

²²² Nickel Industries, "Angel Nickel," n.d., <https://nickelindustries.com/operations/angel-nickel/> (accessed August 25, 2023).

and actions taken to prevent and mitigate human rights and environmental harms. Nickel Industries provided information about the PT Angel Nickel Industry detailed plan on management and environmental monitoring, climate-related financial disclosures, Nickel Industries' human rights policy, Nickel Industries' Modern Slavery Statement, partial answers to our questions, and the annual greenhouse gas emissions of the Angel Nickel project, which totaled 1,869,528.3 kg CO₂e in 2022. According to Nickel Industries' response to our letter, the Angel Nickel project sources nickel ore, "in and around IWIP, with all suppliers subject to a rigorous screening process and must be in full compliance with all laws."²²³

The **PT Youshan Nickel Indonesia Co.** project is a joint venture between Huayou and Tsingshan. The project, which became operational in 2020, has the capacity to produce 130,000 metric tons of nickel sulphate per year and also includes a 250MW coal-fired power plant and a port with a capacity of 50,000 metric tons.²²⁴ Climate Rights International wrote to Tsingshan and Huayou about their operations at IWIP. We did not receive a response to Tsingshan. Huayou did not provide specific information about the operations of PT Youshan Nickel Indonesia Co. as part of its response to Climate Rights International.²²⁵

In May 2023, Chinese battery maker **CNGR Advanced Material** and Singapore-based investment group **Rigqueza International** announced plans to build three nickel matte processing plants within IWIP, at a total of US\$1.3 billion in investment.²²⁶ See the following section on Singapore-based investment groups for more information on Rigqueza. CNGR is publicly listed on the Shenzhen stock exchange, and the company is reportedly considering a public offering of its Indonesian assets as soon as 2024.²²⁷ CNGR supplies nickel to major, global electric vehicle companies (see the section on supply chain for more information). Climate Rights International wrote to CNGR and Rigqueza International seeking information regarding its operations in IWIP and whether its management had any plans to mitigate or remediate harms to the rights of Indigenous Peoples and other local communities, or the environmental degradation caused by its proposed operations at IWIP. We did not receive a response from Rigqueza International. In its response to our questions, CNGR stated, "The project for the construction of three nickel matte processing plants has not yet commenced. If the project were to commence, it would

²²³ For a copy of Nickel Industries' correspondence, see Appendix I.

²²⁴ IWIP, "Tenant," n.d., <https://iwip.co.id/en/tenant-2/> (accessed February 17, 2023).

²²⁵ See Appendix I for Huayou's full response.

²²⁶ T Shihua, *Yicai Global*, "CNGR, Rigqueza Invest USD1.3 Billion to Hike Nickel Ore Processing Capacity in Indonesia," May 19, 2022, <https://www.yicai.com/news/cngr-rigqueza-invest-usd13-billion-to-hike-nickel-ore-processing-capacity-in-indonesia> (accessed May 22, 2023).

²²⁷ F Dahrul, *Yahoo Finance* (via Internet Archive), "Tesla Supplier CNGR Weighs Indonesia Battery Metal Unit IPO, Sources Say," September 14, 2023, <https://web.archive.org/web/20230926043721/https://finance.yahoo.com/news/tesla-supplier-cngr-weighs-indonesia-091802867.html> (accessed September 14, 2023).

be governed by our ESG policy, Human Rights Policy, Due Diligence Policy and Suppliers' Code of Conduct, ensuring strict adherence to these policies and guidelines."²²⁸

The joint **PT Yashi Indonesia** Investment project is expected to produce up to 300,000 tons of ferronickel per year. This project is a joint venture between **Zhenshi, Shanghai Decent Investment Group**, and **Zhejiang Huajun Investments**. Zhejiang Huajun Investments was founded in Beijing in 2007 and has approximately twenty subsidiaries and affiliates, according to the company's website.²²⁹ The company is privately held, and there is limited public information about its internal policies, governance, and practices.²³⁰

China First Metallurgical Construction Group Co., Ltd. (CFMCC) is a Chinese state-owned enterprise and was responsible for building a 250 MW coal plant for the PT Yashi Indonesia Investment project.²³¹ It is unclear whether CFMCC is still operating at IWIP.

The **PT Huayu Nickel Cobalt** project at IWIP is a USD\$2.08 billion smelter project announced in 2021, with the capacity to produce 120,000 metric tons of nickel and 15,000 metric tons of cobalt per year.²³² The project is a joint venture of five companies: **Yongrui Holdings**, owned by Tsingshan subsidiary **Yongqing Technology Co.** (31 percent), **Huayou** (20 percent), **EVE Energy** (17 percent), **Glaucous International Pte. Ltd.** (30 percent), and **Lindo Investment Pte. Ltd.** (2 percent). For more information on Glaucous and Lindo, see the following section on Singapore-based Investment Groups. **EVE Energy** is a Chinese battery company and has been publicly listed on the Shenzhen stock exchange since 2001 (see Appendix II for a list of EVE's top shareholders). In light of this report's findings, Climate Rights International wrote to EVE Energy seeking information on how its due diligence policy was put into practice in its operations at IWIP. As of the time of writing, EVE Energy, Glaucous, or Lindo did not respond. Huayou did not provide specific

²²⁸ CNGR email to Climate Rights International, December 27, 2023, Appendix I.

²²⁹ Huajun Group (via Internet Archive), "About Us," n.d., <https://web.archive.org/web/20220818124619/http://huajungroup.net/about/index.html> (accessed December 15, 2023).

²³⁰ Bloomberg, "Zhejiang Huaxun Investment Co Ltd.," n.d., <https://www.bloomberg.com/profile/company/1346919D:CH> (accessed December 5, 2023).

²³¹ MarketScreener, "Metallurgical of China : Indonesia's Electric Furnace No. 4 of Weda Bay Nickel-Iron Project Constructed by CFMCC Starts Production," July 2, 2020, <https://www.marketscreener.com/quote/stock/METALLURGICAL-CORPORATION-5774269/news/Metallurgical-of-China-Indonesia-s-Electric-Furnace-No-4-of-Weda-Bay-Nickel-Iron-Project-Construct-30862331/> (accessed September 27, 2023).

²³² T Daly, *Reuters*, "China's Huayou invests in \$2.1 bln Indonesia nickel project," May 24, 2021, <https://www.reuters.com/article/indonesia-nickel-huayou-eve-energy-idCNL3N2NB11O> (accessed December 5, 2023).

information about the operations of PT Huayu Nickel Cobalt as part of its response to Climate Rights International.²³³

German chemical company **BASF** and France-based **Eramet** have announced plans to build a nickel and cobalt refining facility, called Sonic Bay, in IWIP. As proposed, the project would produce 67,000 tons of nickel and 7,500 tons of cobalt per year, using high-pressure acid leach (HPAL) technology which uses high temperatures and chemicals to extract nickel from laterite ore.²³⁴ HPAL is largely untested and often deemed risky due to its financial uncertainty and environmental impacts.²³⁵ BASF is the world's largest chemical producer and is a growing manufacturer of battery materials.²³⁶ At the time of writing, the project had not yet begun construction. Climate Rights International wrote to BASF and Eramet to inquire about the Sonic Bay project, in light of the findings of this report. BASF responded that it has not yet made a final investment decision about the proposed Sonic Bay project, so was not able to answer our questions.²³⁷ Eramet stated that it has not yet made a final investment decision, but provided technical information about the proposed Sonic Bay project, including that it will source nickel ore from WBN and plans to install solar panels to power most of the plant's energy needs on dry tailing stacks within five years of operation.²³⁸

²³³ See Appendix I for Huayu's full response.

²³⁴ Bloomberg, "BASF, Eramet Plan \$2.6 Billion Nickel Smelter in Indonesia," January 17, 2023, <https://www.bloomberg.com/news/articles/2023-01-18/basf-eramet-plan-2-6-billion-nickel-smelter-in-indonesia#xj4y7vzkg> (accessed February 15, 2023).

²³⁵ H Ribeiro et al., *S&P Global*, "Rising EV-grade nickel demand fuels interest in risky HPAL process," March 3, 2021, <https://www.spglobal.com/commodityinsights/en/market-insights/blogs/metals/030321-nickel-hpal-technology-ev-batteries-emissions-environment-mining> (accessed December 5, 2023).

²³⁶ Under the German Supply Chain Due Diligence Act, BASF is obligated to monitor its operations and suppliers for human rights violations and is required to conduct a risk assessment regarding potential violations immediately.

BASF, "Battery Materials," <https://catalysts.basf.com/industries/automotive-transportation/battery-materials> (accessed November 20, 2023).

²³⁷ For a copy of BASF's correspondence, see Appendix I.

²³⁸ For a copy of Eramet's correspondence, see Appendix I.

joint project between Huayou (through its subsidiary Huayao International Investment), **Strive Investment**, and **Lindo Investment Pte. Ltd.** Strive Investment and Lindo Investment Pte. Ltd. are both Singapore-based investment groups, and more information about those entities is provided in the following section.

Singapore-based Investment Groups

At least four newly registered Singapore-based investment groups are providing major financing to Chinese company-led nickel projects at IWIP, including the **PT Huayu Nickel Cobalt** project and a joint venture with CNGR. These Singapore-based groups are all funded by a shareholder located in the Cayman Islands. Table 4, below, provides basic governance information of the four investment groups, showing significant overlap between the four groups' officers and shareholders.

Table 4. Singapore-based Investment Group Data.²⁴⁵

	Glaucous International	Rigueza International	Lindo Investment	Strive Investment
Incorporation Date	25-Mar-21	9-Mar-21	25-Mar-21	28-Sep-22
Office Address	2 Battery Road, #27-01, Maybank Tower, Singapore (049907)	2 Battery Road, #27-01, Maybank Tower, Singapore (049907)	2 Battery Road, #27-01, Maybank Tower, Singapore (049907)	2 Battery Road, #27-01, Maybank Tower, Singapore (049907)
Officers	Xiang Binghe	Xiang Binghe	Xiang Binghe	Xiang Binghe
	Li Ruiling	Li Ruiling	Mei Xiongfeng	Li Ruiling
	He Xiuqin	He Xiuqin	He Xiuqin	He Xiuqin
	Lin Jiqun	Lin Jiqun	Lin Jiqun	Lin Jiqun
	Sun Jianfen	Sun Jianfen	Sun Jianfen	Sun Jianfen
	Liu Xin	Liu Xin	Liu Xin	Liu Xin
Date of Last AGM	31-May-22	31-May-22	31-May-22	n/a
Date of Last Annual Report	8-Jun-22	9-Jun-22	9-Jun-22	n/a
Shareholder	Ever Rising Limited	Perlux Limited	Perlux Limited	Ever Rising Limited
Shareholder Address	P.O. Box 3119 Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1-1205 Cayman Islands	P.O. Box 3119 Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1-1205 Cayman Islands	P.O. Box 3119 Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1-1205 Cayman Islands	P.O. Box 3119 Grand Pavilion, Hibiscus Way, 802 West Bay Road, Grand Cayman, KY1-1205 Cayman Islands

²⁴⁵ Accounting and Corporate Regulatory Agency, "BizFile," n.d., <https://www.tis.bizfile.gov.sg/ngbtisinternet/faces/oracle/webcenter/portalapp/pages/TransactionMain.jspx?select-edETransId=dirSearch> (accessed June 2 and August 29, 2023).

Two of the groups, Glaucous International Pte Ltd and Lindo Investment Pte Ltd are invested in the PT Huayu Nickel Cobalt project, alongside Zhejiang Huayou Cobalt (one of the main investors of IWIP), Yongrui (which is owned by Tsingshan, another IWIP investor, through its subsidiary Yongqing Technology) and EVE Energy Co Ltd. The latter three groups are based in China. Glaucous and Lindo were both registered in Singapore on March 25, 2021. Glaucous is providing USD\$624 million (30%) and Lindo is providing USD\$41.6 million (2%).

Rigqueza International Pte Ltd, is in a joint venture with Chinese company CNGR, a major battery-producing company, to build three high-grade nickel matte factories in Weda Bay. Rigqueza is providing USD\$378 million in funding (30%). Rigqueza also partnered with CNGR on a \$243 million smelting project in Sulawesi, Indonesia.²⁴⁶

Strive Investment holds a 49 percent stake in the proposed Huaxing Refining Indonesia project, with Huayou also holding 49 percent and Lindo Investment Pte Ltd holding the remaining 2 percent. The project, which was announced in July 2023, is projected to produce 50,000 tonnes of nickel sulphate per year and will be located at IWIP. Strive Investment and Rigqueza have the same Cayman Islands-based shareholder, **Perlux Limited**.

Notably, Glaucous International, Rigqueza International, and Strive Investment have an identical list of officers, and five out of six are also officers of Lindo Investment.

Xiang Binghe is listed as an officer of all four groups and is also a board member of Australia-based Nickel Industries, Ltd., which is the primary stakeholder in the PT Angel Nickel Project, as well as Chairman of Eternal Tsingshan Group Ltd.²⁴⁷ According to his profile on Nickel Industries' website, Xiang Binghe, "has successfully led the management, development and operations of the Indonesia Morowali Industrial Park ('IMIP') and the Indonesia Weda Bay Industrial Park ('IWIP')." ²⁴⁸

He Xiuqin is also listed as an officer of all four groups. According to data Climate Rights International purchased from Singapore's Accounting and Corporate Regulatory Agency (ACRA), He Xiuqin is on the board of 73 companies in Singapore, including the four investment groups outlined in this chapter and Stand Minerals, a shareholder of PT Weda Bay Nickel.²⁴⁹ He Xiuqin is the only officer of each group

²⁴⁶ Asian Metal, "China's CNGR to make nickel matte in Indonesia," April 9, 2021, <https://www.asianmetal.com/news/1656839/China%27s-CNGR-to-make-nickel-matte-in-Indonesia> (accessed September 11, 2023).

²⁴⁷ Bloomberg, "Xiang Binghe," n.d., <https://www.bloomberg.com/profile/person/23410396> (accessed September 11, 2023).

²⁴⁸ Nickel Industries, "Board & Management," n.d., <https://nickelindustries.com/about-us/board-management/> (accessed September 11, 2023).

²⁴⁹ Reuters, "Tsingshan and Eramet's Indonesia Weda Bay nickel project starts production," April 30, 2020, <https://www.reuters.com/article/us-indonesia-nickel-idUSKBN22C1UK> (accessed March 15, 2023).

listed as a Singapore-citizen; it is a requirement in Singapore that at least one director is locally resident in Singapore and either a Singaporean citizen, permanent resident, or employment pass holder.²⁵⁰ While Climate Rights International was not able to confirm He Xiuqin's identity with certainty, she shares a name with the wife of Tsingshan founder and chairman Xiang Guangda.²⁵¹

Key Mining Companies

As of December 2022, there were 66 mining concessions in Central Halmahera, totaling 142,964 hectares, or roughly 60 percent of the total district.²⁵² While there are many nickel mining concessions in Central and East Halmahera whose activities may pose serious threats to people and the environment, individuals interviewed by CRI made specific allegations regarding human rights or environmental harms caused by the activities of **PT Weda Bay Nickel**, **PT First Pacific Mining**, and **PT Mega Haltim Mineral**.

PT Weda Bay Nickel (WBN), the largest nickel mining company operating on Halmahera and the second largest nickel concession in Indonesia, is a joint venture between Indonesian mining company PT Antam, which is majority owned by the Indonesian government, and Singapore-based group Strand Minerals, with PT Antam holding 10 percent of WBN and Strand Minerals holding 90 percent.²⁵³ Strand Minerals, in turn, is made of two shareholders: Eramet and Tsingshan, with Eramet holding 43 percent and Tsingshan holding the remaining 57 percent.²⁵⁴

²⁵⁰ Singapore Accounting and Corporate Regulatory Authority, "Appointing Directors, Company Secretary and Other Key Personnel," n.d., <https://www.acra.gov.sg/how-to-guides/setting-up-a-local-company/appointing-directors-company-secretary-and-other-key-personnel> (accessed May 15, 2023).

²⁵¹ K Kawase, *Nikkei Asia*, "Nickel squeeze shines spotlight on China metals group Tsingshan," March 11, 2022, <https://asia.nikkei.com/Business/Materials/Nickel-squeeze-shines-spotlight-on-China-metals-group-Tsingshan> (accessed June 6, 2023).

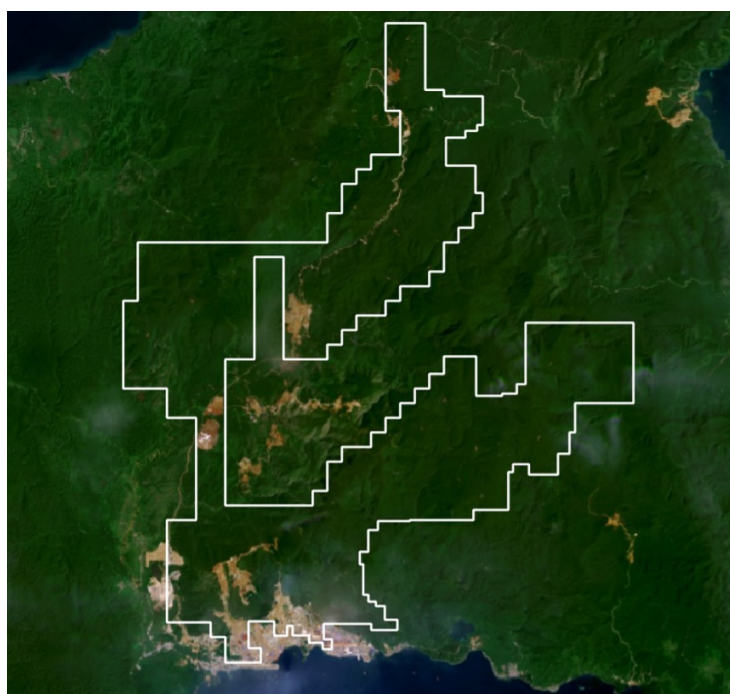
²⁵² C Belseran, *Mongabay*, "Ketika Tambang Nikel 'Kuasai' Hutan Halmahera Tengah," December 6, 2022, <https://www.mongabay.co.id/2022/12/06/ketika-tambang-nikel-kuasai-hutan-halmahera-tengah/> (accessed August 28, 2023).

²⁵³ The ownership of Strand Minerals has changed throughout the years. As of 2013, Singapore-based Strand Minerals owned 90 percent of WBN shares and Indonesia-based ANTAM owned the remaining 10 percent. Strand Minerals' shareholders in 2013 were Eramet (66.6 percent), Mitsubishi Corporation (30 percent), and Pamco Industries (3.4 percent). In 2016, Mitsubishi sold its shares in Strand Minerals to Eramet. After a halt in the project, Tsingshan later joined the project in 2019, joining Eramet as the only shareholders of Strand Minerals. Ministry of Energy and Mineral Resources, "Company Profile: Weda Bay Nickel," n.d., <https://modi.esdm.go.id/portal/detailPerusahaan/8025> (accessed December 2, 2023); ANTAM, "Ownership Structure," n.d., <https://antam.com/en/stock-information/ownership-structure-i> (accessed December 2, 2023); Reuters, "Mitsubishi, Pacific Metals to sell stakes in Indonesia nickel mine to Eramet," April 24, 2016, <https://www.reuters.com/article/uk-mitsubishi-nickel-indonesia-idUKKCN0XM08X> (accessed May 22, 2023).

²⁵⁴ NS Energy, "Weda Bay Nickel Project," n.d., <https://www.nsenergybusiness.com/projects/weda-bay-nickel-project/#> (accessed December 3, 2023).

Eramet has committed to have its Weda Bay Nickel mining sites assessed by an independent, third-party to be in compliance with the IRMA standard by 2027.²⁵⁵

In 1998, Weda Bay Nickel signed a Contract of Work with the Indonesian government to explore for and eventually mine nickel.²⁵⁶ In its initial proposal, WBN was planned to comprise nearly 55,000 hectares of land; as of 2023, its concession is 45,065 hectares. According to analysis by Mighty Earth, an environmental organization, 86.3 percent of the WBN concession is on “high carbon stock” forest, meaning that the forests located in the WBN mining concession have large amounts of stored carbon.²⁵⁷ 4,572 hectares of the WBN concession are also deemed “key biodiversity areas,” as they are critical habitats for plant and animal species.²⁵⁸



Corporate actors with active or planned operations and investments in nickel processing at IWIP, by project.

For more than a decade, WBN has been the subject of controversy over the impact of its potential operations on Indigenous Peoples and other local communities, including complaints that communities were not able to provide free, prior, and

²⁵⁵ Eramet, “Refocused and more robust, Eramet stays the course in a challenging market environment,” July 26, 2023, <https://www.globenewswire.com/news-release/2023/07/26/2711556/0/en/Refocused-and-more-robust-Eramet-stays-the-course-in-a-challenging-market-environment.html> (accessed July 26, 2023).

²⁵⁶ Eramet, “The success story of Weda Bay Nickel,” July 20, 2022, <https://www.eramet.com/en/success-story-weda-bay-nickel> (accessed December 3, 2023).

²⁵⁷ Mighty Earth, “Sourcing Responsible Nickel for EVs,” October 7, 2023, <https://www.mightyearth.org/electric-vehicles-evs-are-vital-to-the-transition-away-from-fossil-fuels-toward-clean-transportation-they-reduce-air-pollution-and-are-more-efficient-than-cars-that-run-on-gasoline-even-better-th/> (accessed October 8, 2023).

²⁵⁸ Ibid.

informed consent, inadequate compensation, and environmental degradation.²⁵⁹ In 2010, Indonesian NGOs filed a complaint to the World Bank’s Compliance Advisor Ombudsman (CAO) regarding the human and environmental impacts of the project, which was to receive World Bank funding. In October 2011, the CAO found that the case did not merit an audit by the Multilateral Investment Guarantee Agency.²⁶⁰

In 2020, the WBN mine and its ferroalloy plant at IWIP became operational. Between 2020 to 2022, 1,456.38 hectares in the WBN concession were deforested.²⁶¹

Australian mining company **Thiess** holds a IDR1.3 trillion (US\$83.9 million) contract with WBN to support mining activities, including ore loading, hauling, and stockpile maintenance.²⁶² The contract, which began in May 2023 and will run for four years, is Thiess’ first nickel operation in Indonesia. In addition, in August 2023, Thiess announced it had secured an A\$240 million (US\$157.3 million) contract with PT Halmahera Sukses Mineral to support mining activities for a period of 3.5 years.²⁶³

Thiess has a climate change policy and sustainability goals, including a 2050 net zero commitment across its operations and value chain.²⁶⁴ Thiess claims to use new diesel trucks that are in line with European emission standards, but it is unclear whether Thiess has taken any additional steps to ensure that its mining activities in Central and East Halmahera do not degrade the local environment.²⁶⁵ CRI wrote to Thiess about their mining operations in Central and East Halmahera, but they did not respond.

PT First Pacific Mining (FPM) holds a 2,080-hectare nickel mining concession in Central Halmahera, just north of the village of Sagea. The company’s mining permit was granted in June 2018 and is effective until October 2032.²⁶⁶ FPM has two

²⁵⁹ Corporate Accountability Research, “Case Study of the CAO’s Approach to the PT Weda Nickel Mine Complaint: Barriers to Mediation in a Climate of Fear,” 2016, <https://corporateaccountabilityresearch.net/njm-report-x-weda-bay> (accessed March 3, 2023).

²⁶⁰ Compliance Advisor Ombudsman, “Indonesia: PT Weda Bay Nickel-01/Weda Bay,” n.d. <https://www.cao-ombudsman.org/cases/indonesia-pt-weda-bay-nickel-01weda-bay> (accessed October 25, 2023).

²⁶¹ See analysis in Chapter VII and Appendix III.

²⁶² Thiess, “Weda Bay Nickel,” n.d., <https://thiess.com/projects/weda-bay> (accessed September 26, 2023).

²⁶³ Thiess, “Thiess secures A\$240 million nickel contract in Central Halmahera, Indonesia,” August 31, 2023, <https://thiess.com/news/project-announcements/thiess-secures-a-240-million-nickel-contract-in-central-halmahera-indonesia> (accessed November 1, 2023).

²⁶⁴ Thiess, “Climate Report 2022,” <https://thiess.com/uploads/Thiess-Climate-Report-2022.pdf> (accessed September 26, 2023).

²⁶⁵ Thiess, “Thiess enters Indonesian nickel industry with IDR1.3 trillion (A\$125 million) contract,” March 16, 2023, <https://thiess.com/news/project-announcements/thiess-enters-indonesian-nickel-industry-with-idr1-3-trillion-a-125-million-contract> (accessed December 14, 2023).

²⁶⁶ Ministry of Energy and Mineral Resources, MODI Minerba One Data Indonesia, “First Pacific Mining,” <https://modi.esdm.go.id/portal/detailPerusahaan/2738> (accessed October 23, 2023).

shareholders, both of whom originate from China according to the Ministry of Energy and Mineral Resources website. FPM only holds one mining concession.²⁶⁷

PT Mega Halmim Mineral (MHM) has a 13,510-hectare nickel mining concession located in both Central and East Halmahera. The MTM concession was granted in November 2016 and is effective until November 2030.²⁶⁸ According to the ministry website, MHM has only one mining concession in Indonesia.²⁶⁹

IWIP's Downstream Supply Chain

Nickel mined and smelted in Halmahera can be found in products around the world. While the primary use of nickel has been in the production of stainless steel, at roughly 65 percent of its use in the Global North, the growth of the EV market is projected to drastically increase demand for nickel in the next decade.²⁷⁰

Two common types of nickel products produced at IWIP are nickel iron pig (and other ferro-nickels) and nickel matte. According to global trade data for these two commodities, Indonesia exported 97 percent of its ferro-nickel and 67 percent of its nickel matte by weight to China in 2022.²⁷¹ When taking into account all forms of nickel and articles thereof, Indonesia exported 75 percent of all its nickel, by value, to China in 2022.²⁷²

The nickel supply chain is notoriously difficult to track due to a general lack of traceability and transparency from mining companies, smelters, and end users. Climate Rights International is not aware of any publicly available data or studies tracking the full nickel supply chain from mines to end users. While Climate Rights International was not able to track nickel produced at IWIP to specific battery producers in China and onward to the downstream users of those minerals, publicly announced contracts or direct purchase agreements tie major electric vehicle makers to nickel producers operating at IWIP.

²⁶⁷ Ibid.

²⁶⁸ Ministry of Energy and Mineral Resources, Minerba One Map Indonesia, <https://momi.minerba.esdm.go.id/public/> (accessed October 23, 2023).

²⁶⁹ Ministry of Energy and Mineral Resources, MODI Minerba One Data Indonesia, "Mega Halmim Mineral," <https://modi.esdm.go.id/portal/detailPerusahaan/4925> (accessed October 23, 2023).

²⁷⁰ U.S. Geological Survey, "Nickel Statistics and Information," n.d., <https://www.usgs.gov/centers/national-minerals-information-center/nickel-statistics-and-information> (accessed September 26, 2023).

²⁷¹ UN Comtrade Database, "Trade Data," n.d., <https://comtradeplus.un.org> (accessed November 29, 2023).

²⁷² For a full explanation of what constitutes "nickel and articles thereof," see: World Customs Organization, "Chapter 75: Nickel and articles thereof," n.d., https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/nomenclature/instruments-and-tools/hs-nomenclature-older-edition/2007/hs-2007/1575_2007e.pdf?la=en (accessed December 14, 2023); Ibid.

Electric Vehicle Supply Chain Connections

Global electric vehicle companies are using Indonesian nickel in their vehicles' batteries. The following describes the relationships between nickel producers operating at IWIP and global electric vehicle companies, including **Tesla**, **Volkswagen**, and **Ford**.

Tesla

Tesla is the world's largest producer of electric vehicles, producing more than 1.3 million EVs in 2022. In recent years, Tesla has pursued direct sourcing for minerals in its EVs, meaning that it makes deals directly with mineral producers. According to Tesla's Impact Report, the company holds agreements to purchase nickel from Indonesia from two nickel producers that have operations at IWIP, Huayou and CNGR. Climate Rights International was not able to confirm whether that nickel is sourced from IWIP or elsewhere in Indonesia. The Huayou-Tesla deal reportedly runs from July 1, 2020 to December 31, 2025, while the CNGR deal runs from 2023 to 2025.²⁷³ According to Tesla's 2022 Impact Report, which lists its mineral suppliers, Huayou's operations in Indonesia have been audited and subjected to a lifecycle analysis (LCA), while an audit and LCA of CNGR's nickel production in Indonesia are in progress.²⁷⁴ While Tesla lists CNGR as one of its nickel suppliers, in an email to Climate Rights International, CNGR stated, "Our company primarily specializes in the production of precursors, and as such, electric vehicle (EV) companies are not our direct customers."²⁷⁵ In its response to Climate Rights International, Huayou stated that its battery production at IWIP are in a trial stage and that it transports its intermediary products to China to be refined into battery grade material. Huayou did not confirm whether the nickel further processed in China is sold to EV companies because, "we can track to our tier one clients only."²⁷⁶

Climate Rights International wrote to Tesla seeking more information about its nickel sourcing from Huayou and CNGR, including copies of audits and lifecycle analyses, in light of this report's findings. We also asked Tesla how it accounted for the emissions from deforestation for nickel mining and the burning of coal that powers Huayou and CNGR operations. Tesla did not provide a written response to Climate Rights International.

²⁷³ A Lee, *Bloomberg*, "Tesla Inks Battery Materials Deals With Two China Suppliers," July 31, 2022, <https://www.bloomberg.com/news/articles/2022-08-01/tesla-inks-battery-materials-deals-with-two-chinese-suppliers> (accessed December 3, 2023).

²⁷⁴ Tesla, "Impact Report 2022," 2023, https://www.tesla.com/ns_videos/2022-tesla-impact-report.pdf (accessed December 5, 2023).

²⁷⁵ CNGR email to Climate Rights International, December 27, 2023, Appendix I.

²⁷⁶ Huayou Cobalt letter to Climate Rights International, December 25, 2023, Appendix I.

Volkswagen

Volkswagen Group (Volkswagen), based in Wolfsburg, Germany, is the world's largest automaker by revenue.²⁷⁷ Volkswagen has reportedly formed joint ventures with Huayou and Tsingshan to secure nickel from Indonesia for its electric vehicles. According to media reports, the 2022 agreement with Huayou is for 120,000 metric tons of nickel and 15,000 metric tons of cobalt annually.²⁷⁸

As a German company, the German Supply Chain Due Diligence Act applies to Volkswagen, obligating the company to monitor its suppliers for human rights and environmental abuses.

Climate Rights International wrote to Volkswagen seeking more information about its nickel sourcing from Huayou and Tsingshan, including copies of audits, in light of this report's findings. We also asked Volkswagen how it accounted for the emissions from deforestation for nickel mining and the burning of coal that powers Huayou and Tsingshan operations. As of the time of writing, we did not receive a response from Volkswagen.

Ford

U.S. automaker Ford also has a publicly announced agreement to source nickel in Indonesia from Huayou. In addition to a proposed nickel processing plant between PT Vale Indonesia, Huayou and Ford, which will be located elsewhere in Indonesia, Ford has a separate agreement with Huayou to source nickel, although it is unclear where in Indonesia this nickel will be mined and processed.²⁷⁹ In the company's filings with the U.S. Securities and Exchange Commission, Ford does not provide a list of its nickel suppliers, but it states, "To facilitate access to the raw materials necessary for the production of electric vehicles, Ford has entered into, and expects to continue to enter into, multi-year commitments to raw material suppliers that

²⁷⁷ P Confino, *Fortune*, "Here are the 20 biggest automakers in the world," August 12, 2022, <https://fortune.com/2022/08/12/20-biggest-car-companies-world-fortune-global-500/> (accessed September 27, 2023).

²⁷⁸ B Goh and D Patton, *Reuters*, "Volkswagen unveils Asian ventures to secure e-battery materials supply," March 21, 2022, <https://www.reuters.com/business/autos-transportation/volkswagen-china-says-will-form-ventures-with-huayou-cobalt-tsingshan-group-2022-03-21/> (accessed September 27, 2023); Mining Technology, "Volkswagen plans JVs in Indonesia and China," March 22, 2022, <https://www.mining-technology.com/news/volkswagen-jvs-nickel-cobalt-supply/?cf-view> (accessed March 13, 2023).

²⁷⁹ Ford, "FORD RELEASES NEW BATTERY CAPACITY PLAN, RAW MATERIALS DETAILS TO SCALE EVS; ON TRACK TO RAMP TO 600K RUN RATE BY '23 AND 2M+ BY '26, LEVERAGING GLOBAL RELATIONSHIPS," July 21, 2022, <https://media.ford.com/content/fordmedia/fna/us/en/news/2022/07/21/ford-battery-capacity-raw-materials-scale-evs.html> (accessed March 13, 2023).

subject Ford to risks associated with lower future demand for such materials as well as costs that fluctuate and are difficult to accurately forecast.”²⁸⁰

Climate Rights International wrote to Ford seeking more information about its nickel sourcing from Huayou, including copies of audits, in light of this report’s findings. We also asked Ford how it accounted for the emissions from deforestation for nickel mining and the burning of coal that powers Huayou operations. In its response, which may be found in Appendix I, Ford stated:

We conduct ESG due diligence throughout the entire sourcing process, including raw materials and battery mineral processing suppliers. Prior to any commitments, we conduct desk- based due diligence of potential suppliers to understand their public commitments to respecting human rights, protecting the environment and being a good community partner.

In our agreements with suppliers, we require alignment with and performance that reflects Ford’s ESG expectations and meets the expectations of our Supplier Code of Conduct. We request our suppliers to source raw mined materials from supply chain companies that commit to and/or are certified by IRMA or equivalent. We also request processing facilities to apply similar independent or third-party standards from RMI that demonstrate their actions toward responsible sourcing. Finally, we require supply chain transparency to the raw materials as we work toward compliance with various current and upcoming global due diligence laws. This includes information related to the source of raw materials, due diligence conducted during the mining/processing of raw materials, and carbon footprint.

Tesla, Volkswagen, and Ford are members of the Initiative for Responsible Mining Assurance (IRMA).²⁸¹ As part of their membership, each company has agreed to take steps to advance environmentally sustainable mining, including by encouraging mining companies to participate in IRMA third-party assessments.

While Climate Rights International is aware that other major EV companies source or have announced plans to source nickel from Indonesia, including BMW and Hyundai, Climate Rights International is not aware of any direct sourcing

²⁸⁰ U.S. Securities and Exchange Commission, Ford Motor Company, Form 10-K, 2022, <https://www.sec.gov/ix?doc=/Archives/edgar/data/37996/000003799623000012/f-20221231.htm> (accessed March 13, 2023).

²⁸¹ IRMA, “Members / Partners,” n.d. <https://responsiblemining.net/members-partners/#what-it-is> (accessed December 5, 2023).

agreements between those companies and nickel producers operating at IWIP.²⁸² All EV companies sourcing nickel from Indonesia should conduct due diligence to ensure that nickel used in their vehicles is not contributing to human rights abuses and environmental degradation.

Potential Supply Chain Links with the Xinjiang Uyghur Autonomous Region

Human rights organizations, international bodies, and activists have reported grave, widespread, and systematic human rights abuses of Uyghur and other predominantly Muslim ethnic minority communities in the Xinjiang Uyghur Autonomous Region (XUAR) in China – violations that amount to crimes against humanity. Documented violations include imprisonment, enforced disappearances, forced labor, arbitrary detention, forced medical treatment, sexual violence, and torture of ethnic and religious minority groups.²⁸³ As described in a 2022 report by the United Nations Office of the High Commissioner for Human Rights, “The extent of arbitrary and discriminatory detention of members of Uyghur and other predominantly Muslim groups, pursuant to law and policy, in the context of restrictions and deprivation more generally of fundamental rights enjoyed individually and collectively, may constitute international crimes, in particular crimes against humanity.”²⁸⁴

While it is outside the scope of this report to investigate human rights abuses in the XUAR, media reports suggest that Chinese companies operating at IWIP, including the three IWIP stakeholders, have either direct subsidiaries or links with companies or government officials in the XUAR.

Zhenshi Holding Group has a direct subsidiary in the XUAR, as it is the main shareholder of **Zhenshi Yongchang Composite Materials Co., Ltd.**²⁸⁵ In addition, according to a 2017 media article, Zhenshi invested 50 million RMB to establish a glass steel pipe plant with

²⁸² For instance, according to Nissan’s 2022 Actions for Minerals Sourcing, the company sources minerals from Huayou in China and the Democratic Republic of the Congo. Because Nissan did not disclose what minerals were sourced from Huayou and because the location was not listed as Indonesia, Climate Rights International did not investigate further. Nissan Motor Corporation, “Actions for Minerals Sourcing,” n.d., https://www.nissan-global.com/EN/SUSTAINABILITY/LIBRARY/ASSETS/PDF/Minerals_e.pdf (accessed March 13, 2023).

²⁸³ OHCHR, “OHCHR Assessment of human rights concerns in the Xinjiang Uyghur Autonomous Region, People’s Republic of China,” August 31, 2022, <https://www.ohchr.org/sites/default/files/documents/countries/2022-08-31/22-08-31-final-assesment.pdf>; Amnesty International, “‘Like We Were Enemies in a War’: China’s Mass Internment, Torture and Persecution of Muslims in Xinjiang,” 2021, <https://xinjiang.amnesty.org>; Human Rights Watch, “‘Break Their Lineage, Break Their Roots’: China’s Crimes against Humanity Targeting Uyghurs and Other Turkic Muslims,” April 19, 2021, <https://www.hrw.org/report/2021/04/19/break-their-lineage-break-their-roots/chinas-crimes-against-humanity-targeting> (accessed August 30, 2023).

²⁸⁴ OHCHR, “OHCHR Assessment of human rights concerns in the Xinjiang Uyghur Autonomous Region, People’s Republic of China,” para. 148., August 31, 2022, <https://www.ohchr.org/sites/default/files/documents/countries/2022-08-31/22-08-31-final-assesment.pdf> (accessed August 30, 2023).

²⁸⁵ Qixin, “振石永昌复合材料有限公司,” August 20, 2023, <https://archive.ph/HHT6X> (accessed August 23, 2023).

Xinjiang Production and Construction Corp's (XPCC) 36th Regiment.²⁸⁶ The XPCC is a paramilitary organization sanctioned by the U.S. government in 2021 and included on the U.S.'s Uyghur Forced Labor Prevention Act (UFLPA) Entity List for its links to Uyghur forced labor.²⁸⁷ While this investment does not confirm a direct connection between Zhenshi and the forced labor of Uyghurs, XPCC involvement in the oppression of Uyghurs and Zhenshi's presence in industrial parks where forced labor has been reported is extremely concerning.²⁸⁸

Huayou does not have any subsidiaries operating in the XUAR that Climate Rights International is aware of, but the company appears to be establishing connections with other companies in the region. In May 2023, Huayou leadership visited the Xinjiang Nonferrous Metal Industry Group, which has links with forced labor and is listed on the U.S.'s UFLPA Entity List.²⁸⁹ While this report and others do not confirm direct business between Huayou and companies linked to Uyghur forced labor, the nature of documented visits suggests that Huayou may have or be considering business ties with these companies or other XUAR entities. In a letter to Climate Rights International, Huayou reported, "None of our tier one clients has operating in the Xinjiang Uyghur Autonomous Region."²⁹⁰

Tsingshan, like Huayou, does not have direct business ties with entities in the XUAR, but company representatives have held meetings with local government officials. For example, in 2022, Xinjiang Hutubi County officials visited one of Tsingshan's main subsidiaries, Qingtuo Group.²⁹¹

²⁸⁶ Weixin (via Archive Today), "铁门关市政协一届五次会议举行第二次全体会议," February 17, 2017, <https://archive.ph/GuEhG> (accessed August 23, 2023).

²⁸⁷ For more information on the XPCC, see: Uyghur Human Rights Project, "Five Things to Know About the Bingtuan," August 27, 2020, <https://uhrp.org/report/explainer-five-things-know-about-bingtuan/> (accessed December 21, 2023); U.S. Department of State, "Promoting Accountability for Human Rights Abuse with Our Partners," March 22, 2021, <https://www.state.gov/promoting-accountability-for-human-rights-abuse-with-our-partners/> (accessed August 23, 2023); U.S. Department of Homeland Security, "UFLPA Entity List," <https://www.dhs.gov/uflpa-entity-list> (accessed August 30, 2023).

²⁸⁸ L Murphy et al., Helena Kennedy Centre for International Justice, Sheffield Hallam University, "Until Nothing is Left," July 2022, <https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/until-nothing-is-left> (accessed August 30, 2023).

²⁸⁹ In addition, in late 2022, Huayou was visited by the Deputy Commander of the XPCC, in a visit personally welcomed by Huayou's CEO, Chen Xuehua. Huayou Cobalt Industry (via Archive Today), "新疆生产建设兵团党委常委、副司令员李永红莅临集团总部调研指导," December 17, 2022, <https://archive.ph/y7rC4#selection-323.0-327.273> (accessed August 23, 2023); Huayou Cobalt Industry (via Archive Today), "新疆生产建设兵团党委常委、副司令员李永红莅临集团总部调研指导," December 17, 2022, <https://archive.ph/y7rC4#selection-323.0-327.273> (accessed August 23, 2023); U.S. Department of Homeland Security, "UFLPA Entity List," <https://www.dhs.gov/uflpa-entity-list> (accessed August 30, 2023).

²⁹⁰ Huayou Cobalt letter to Climate Rights International, December 25, 2023, Appendix I.

²⁹¹ Tsingshan (via Archive Today), "新疆呼图壁县党政代表团到访青拓集团," June 20, 2022, <https://archive.ph/YSrFC> (accessed August 23, 2023).

IX. Relevant International Legal Standards

The Right to Water

The human right to water, enshrined under international law, entitles everyone to sufficient, safe, physically accessible, and affordable water for personal and domestic use.²⁹² Personal and domestic uses “ordinarily include drinking, personal sanitation, washing of clothes, food preparation, personal and household hygiene.”²⁹³ The costs and charges associated with securing water must not compromise or threaten the realization of other human rights,²⁹⁴ including the right to an adequate standard of living, from which the right to water is derived.²⁹⁵

While the adequacy of water varies according to conditions, the UN Special Rapporteur on the Human Right to Water and Sanitation has stated that to “ensure the full realization of the right, States should aim for at least 50 to 100 liters per person per day.”²⁹⁶

In addition to water for personal and domestic use, the UN Committee on Economic, Social and Cultural Rights has said that States should ensure that “there is adequate access to water for subsistence farming and for securing the livelihoods of indigenous peoples.”²⁹⁷

States have an obligation to protect the right to water, including by ensuring access to the minimum essential amount of water, “equitable distribution of all available

²⁹² UN Committee on Economic, Social and Cultural Rights, “General Comment No. 15: The Right to Water,” <https://www.refworld.org/pdfid/4538838d11.pdf>, para. 2; UN General Assembly, The human rights to safe drinking water and sanitation, Resolution 70/169, U.N. Doc. A/RES/70/169, December 17, 2015, para 2, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N15/442/72/PDF/N1544272.pdf?OpenElement> (accessed October 3, 2023); Inter-American Court of Human Rights, *Lhaka v. Argentina*, Judgment of February 6, 2020, Inter-Am.Ct.H.R., paras. 222-30, https://www.corteidh.or.cr/docs/casos/articulos/seriec_400_ing.pdf (accessed October 3, 2023).

²⁹³ UN CESCR, General Comment No. 15, para 12(a).

²⁹⁴ *Ibid.*, para. 12(c)(2).

²⁹⁵ UN General Assembly, The human rights to safe drinking water and sanitation, preamble.

²⁹⁶ UN Special Rapporteur on the Human Right to Safe Drinking Water and Sanitation, “Frequently Asked Questions,” https://sr-watersanitation.ohchr.org/en/rightstowater_5.html (accessed July 12, 2023). A 2020 report by the World Health Organization (WHO) defined “optimal access” to water—which carries “low” levels of health concern—as having more than 100 liters per person per day, supplied to the home through multiple taps and continuously available. It defined “intermediate access”—with a “medium” level of health concern—as an average quantity of about 50 liters per person per day, supplied through one tap on the plot of land, or within 100 meters or 5 minutes total of collection time. It defined “basic access”—carrying “high” levels of health concern—as an average quantity unlikely to exceed 20 liters per person per day, with 100-1000 meters in distance or 5 to 30 minutes in collection time. Guy Howard et al., “Domestic water quantity, service level and health,” World Health Organization, 2020 (second edition), <https://www.globalwaters.org/resources/assets/domestic-water-quantity-service-level-and-health> p. x (accessed July 12, 2023).

²⁹⁷ UN CESCR, General Comment No. 15, para 7; Inter-American Court of Human Rights, *Lhaka v. Argentina*, Judgment of February 6, 2020, para. 228 (quoting UN CESCR, General Comment No. 15).

water facilities and services,” and facilitating “improved and sustainable access to water, particularly in rural and deprived urban areas.”²⁹⁸ States also must prevent third parties—such as individuals, groups, or corporations—from interfering with the enjoyment of the right to water, including by adopting necessary and effective measures to restrain third parties from “polluting and inequitably extracting from water resources.”²⁹⁹

Individuals and groups also have a right “to participate in decision-making processes that may affect their right to water.”³⁰⁰ States must take reasonable steps to facilitate “active, free and meaningful” participation.³⁰¹

A failure by the State to take necessary and feasible steps towards the realization of the right to water—including by failing to create and enforce laws against contamination of water supplies —constitutes a violation of the right.³⁰² Anyone denied their right to water must have access to effective judicial or other appropriate remedies.³⁰³

In addition to States’ obligations to prevent third parties from impinging on the right to water, businesses also have independent human rights responsibilities to “exercise due diligence to avoid any action which would result in human rights abuses in the scope of their operations, including their supply chains,” including on the human right to water.³⁰⁴

The Right to a Clean, Healthy and Sustainable Environment

In July 2022, the UN General Assembly (UNGA) adopted a resolution declaring access to a clean, healthy and sustainable environment to be a universal human

²⁹⁸ UN CESCR, General Comment No. 15, paras 26 and 37(e).

²⁹⁹ Ibid., para. 23; UN Commission on Human Rights, Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque, Common violations of the human rights to water and sanitation, A/HRC/27/55, June 30, 2014, para. 29, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/G14/069/10/PDF/G1406910.pdf?OpenElement> (accessed October 3, 2023).

³⁰⁰ UN CESCR, General Comment No. 15, para. 48.

³⁰¹ UN Commission on Human Rights, Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque, Common violations of the human rights to water and sanitation, para. 68.

³⁰² UN CESCR, General Comment No. 15, para. 40.

³⁰³ Ibid., para. 55.

³⁰⁴ UN Commission on Human Rights, Report of the Special Rapporteur on the human right to safe drinking water and sanitation, Catarina de Albuquerque, Common violations of the human rights to water and sanitation, para. 32. See also Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework”; OECD, “OECD Guidelines for Multinational Enterprises on Responsible Business Conduct,” 2023.

right.³⁰⁵ Indonesia voted in favor of the resolution. On March 23, 2023, the UN Human Rights Council adopted, without a vote, a resolution reaffirming the right to a healthy environment and calling on states to take steps to “respect, protect and fulfill” that right.³⁰⁶

The right to a healthy environment is also protected under the Indonesian Constitution and the ASEAN Human Rights Declaration. Article 28H(1) of the Constitution provides that “[e]ach person has a right ...to enjoy a good and healthy environment.”³⁰⁷ The ASEAN Human Rights Declaration includes the right to a “safe, clean, and sustainable environment” as part of the right to an adequate standard of living.³⁰⁸

The Right to an Adequate Standard of Living

Under the International Covenant on Economic, Social and Cultural Rights (ICESCR), to which Indonesia acceded in 2006, the government has the obligation to respect, protect, and fulfill the rights to an adequate standard of living, housing, food, water, health, and education in a non-discriminatory manner.³⁰⁹ The International Covenant on Civil and Political Rights (ICCPR), to which Indonesia acceded at the same time, states that “in no case may a people be deprived of its own means of subsistence.”³¹⁰

The right to health obligates states to recognize and take steps to fulfill “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.”³¹¹ It imposes on states the responsibility to ensure “an adequate supply of safe and potable water and basic sanitation; the prevention and reduction of the

³⁰⁵ UN General Assembly, “Resolution 76/300: The human right to a clean, healthy and sustainable environment,” A/RES/76/300, August 1, 2022, <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N22/442/77/PDF/N2244277.pdf?OpenElement>.

³⁰⁶ UN Human Rights Council, “The right to a clean, healthy and sustainable environment, A/HRC/52/L.7, March 23, 2023, https://ap.ohchr.org/documents/dpage_e.aspx?si=A/HRC/52/L.7.

³⁰⁷ Constitution of Indonesia, Constitution of Indonesia, article 28H(1), <http://www.humanrights.asia/indonesian-constitution-1945-consolidated/#section-15>.

³⁰⁸ ASEAN Human Rights Declaration, adopted Nov. 19, 2012, <https://asean.org/asean-human-rights-declaration/>, art. 28(f).

³⁰⁹ International Covenant on Economic, Social and Cultural Rights, <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights>, arts. 11, 12, 13. Indonesia acceded to the convention on February 23, 2006. https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=80&Lang=en.

³¹⁰ International Covenant on Civil and Political Rights, <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights>, art. 1(2). Indonesia acceded to the convention on February 23, 2006. https://tbinternet.ohchr.org/_layouts/15/TreatyBodyExternal/Treaty.aspx?CountryID=80&Lang=en. See also

UNDRIP, art. 20(2) (“Indigenous peoples deprived of their means of subsistence and development are entitled to just and fair redress”).

³¹¹ ICESCR, art. 12.

population's exposure to harmful substances ... or other detrimental environmental conditions that directly or indirectly impact human health.”³¹²

Rights of Indigenous Peoples

Indonesia is obligated under international human rights law to protect the rights of Indigenous people through its regulatory frameworks and ensure that victims of abuses have access to redress. This includes the rights of Indigenous people to maintain their cultural institutions and traditional livelihoods.

Rooted in fundamental rights enshrined by international human rights conventions, including the rights to self-determination and to be free from racial discrimination, the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) has the support of all but nine countries, including Indonesia, and is increasingly treated as a mandatory minimum standard.³¹³

While Indonesia voted in favor of the Declaration in 2007, the government has yet to pass the Indigenous Community bill, first submitted to the Indonesian parliament in 2012, to further embed the Declaration into domestic law.³¹⁴ The Indonesian government has rejected claims for special rights from groups who self-identify as indigenous because it argues that almost all Indonesian people are indigenous.³¹⁵

The UN Declaration recognizes Indigenous peoples' claims to land and resources that they possess based on “traditional ownership, traditional occupation or use, or which they have otherwise acquired.”³¹⁶ States “shall provide effective mechanisms for prevention of, and redress for, any action which has the aim or effect of dispossessing [Indigenous peoples and individuals] of their land, territories or resources.”³¹⁷

Similarly, the UN Committee on Economic, Social and Cultural Rights, which provides authoritative interpretation of the ICESCR, has stated that governments should “take

³¹² UN Committee on Economic, Social and Cultural Rights, “General Comment No. 14, The Right to the Highest Attainable Standard of Health (Art. 12),” <https://www.refworld.org/pdfid/4538838d0.pdf>, para. 15.

³¹³ UN Declaration on the Rights of Indigenous Peoples, <https://social.desa.un.org/issues/indigenous-peoples/united-nations-declaration-on-the-rights-of-indigenous-peoples> (accessed September 13, 2023)

³¹⁴ HN Jong, *Mongabay*, “For Indonesia MPs, Indigenous rights may be bad for business, report says,” September 17, 2021, <https://news.mongabay.com/2021/09/for-indonesian-member-parliament-indigenous-rights-may-be-bad-for-business-report-says/> (accessed October 23, 2023).

³¹⁵ <https://www.iwgia.org/en/indonesia/5120-iw-2023-indonesia.html> (accessed October 3, 2023)

³¹⁶ UNDRIP, art. 26.

³¹⁷ UNDRIP, art. 8(2)(a).

measures to recognize and protect the rights of indigenous people to own, develop, control and use their communal land, territories and resources.”³¹⁸

Free, Prior and Informed Consent

Indigenous Peoples have the right to participate in decision-making in matters which would affect their rights, and states should consult and cooperate in good faith in order to obtain their free, prior, and informed consent (FPIC) prior to the approval of any project affecting their land or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.³¹⁹

Consent can only be “freely” given if the climate of the process is free from intimidation, coercion, manipulation, and harassment.³²⁰ Indigenous peoples should have the freedom to be represented as traditionally required under their own laws, customs, and protocols, with attention to gender and representation of other sectors within indigenous communities. Indigenous peoples should determine how and which of their own institutions and leaders represent them.³²¹ Any free, prior, and informed consent process must also be prior to any other decisions allowing a proposal to proceed and should begin as early as possible in the formulation of the proposal.³²²

The information should be presented in a manner and form understandable to the community, including translation into a language that they understand, and using culturally appropriate procedures. The substantive content of the information should include the nature, size, pace, reversibility and scope of any proposed project or activity; the reasons for the project; the areas to be affected; social, environmental, and cultural impact assessments; the kind of compensation or benefit-sharing schemes involved; and all the potential harm and impacts that could result from the proposed activity.³²³

Access to Redress and Justice

³¹⁸ UN Committee on Economic, Social and Cultural Rights (CESCR), General Comment 21, Right of everyone to take part in cultural life, U.N. Doc. E/C.12/GC/21, para. 36.

³¹⁹ https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf (accessed September 13, 2023)

³²⁰ Report of the UN Expert Mechanism on the Rights of Indigenous Peoples, “Free, prior and informed consent: a human-rights based approach,” A/HRC/39/62, Aug. 10, 2018, <https://www.ohchr.org/en/calls-for-input/free-prior-and-informed-consent-report>, para. 20(a).

³²¹ *Ibid.*, para. 20©.

³²² *Ibid.*, para. 21.

³²³ *Ibid.*, para. 22(b).

Where the land of Indigenous people has been “confiscated, taken [or] occupied,” without their free, prior and informed consent, they have the right to redress.³²⁴ Redress can take the form of restitution, or “when that is not possible, just, fair, and equitable compensation.”³²⁵ Compensation can take the form of “lands, territories and resources equal in quality, size and legal status or of monetary compensation or other appropriate redress.”³²⁶

Cultural Rights

The International Covenant on Civil and Political Rights (ICCPR) recognizes the right to self-determination and rights of minorities to their own culture.³²⁷ The right to culture has been interpreted to require legal protection for particular ways of life negatively impacted by changes to the natural environment, including such traditional activities as fishing or hunting.³²⁸

Under the UN Declaration on the Rights of Indigenous Peoples,

Indigenous peoples have the right to maintain and develop their political, economic and social systems or institutions, to be secure in the enjoyment of their own means of subsistence and development, and to engage freely in all their traditional and other economic activities.³²⁹

States have the duty to provide effective mechanisms to prevent and provide redress for any actions that deprive Indigenous peoples of “their integrity as distinct peoples, or of their cultural values” or dispossess them of their “lands, territories or resources.”³³⁰

The Right to be Protected from Foreseeable Environmental Harms to Human Rights

Governments have an international human rights obligation to protect populations from foreseeable environmental harms to their human rights, including those linked to climate change. As stated by the UN Special Rapporteur on Human Rights and the Environment,

³²⁴ UNDRIP, art. 28(1).

³²⁵ UNDRIP, art. 28(1).

³²⁶ Ibid., art. 28(2).

³²⁷ ICCPR, art. 1 and 27.

³²⁸ Human Rights Committee, General Comment No. 23, Rights of Minorities, U.N. Doc. CCPR/C/21/Rev.1/Add.5 (1994), para. 7, <https://www.refworld.org/docid/453883fc0.html>.

³²⁹ UNDRIP, art. 20(1).

³³⁰ UNDRIP, art. 8.2.

While it may not always be possible to prevent all environmental harm that interferes with the full enjoyment of human rights, States should undertake due diligence to prevent such harm and reduce it to the extent possible, and provide for remedies for any remaining harm.³³¹

Focusing on climate change, the UN Committee on Economic, Social and Cultural Rights (CESCR) has warned that “a failure to prevent foreseeable human rights harms caused by climate change, or a failure to mobilize the maximum available resources in an effort to do so, could constitute a breach” of their human rights obligations.³³²

A central element of the obligation is to prevent foreseeable harms to the right to life.³³³ The U.N. Human Rights Committee has stated that:

Environmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life. ... Implementation of the obligation to respect and ensure the right to life, and in particular life with dignity, depends, inter alia, on measures taken by States parties to preserve the environment and protect it against harm, pollution and climate change caused by public and private actors.³³⁴

Governments thus have a clear obligation to take legal, regulatory, or legislative steps to prevent foreseeable threats to the right to life by businesses and other private actors, including threats due to deforestation, fossil fuel emissions, pollution, and other environmental harm.³³⁵

³³¹ UN Special Rapporteur on Human Rights and the Environment, “Framework Principles on Human Rights and the Environment,” 2018, para 5.
<https://www.ohchr.org/sites/default/files/FrameworkPrinciplesUserFriendlyVersion.pdf> (accessed September 11, 2023).

³³² See, e.g., Committee on Economic, Social, and Cultural Rights, “Climate change and the International Covenant on Economic, Social, and Cultural Rights,” October 8, 2018, para 6, <https://www.ohchr.org/en/NewsEvents/Pages/DisplayNews.aspx?NewsID=23691&LangID=E> (accessed September 11, 2023).

³³³ UN Human Rights Committee, General Comment No. 36, Article 6: right to life, U.N. Doc. CCPR/C/GC/36 (2019), para. 7, <https://docstore.ohchr.org/SelfServices/FilesHandler.ashx?enc=6QkG1d%2FPFPRiCAqhKb7yhsrdB0H1I5979OVGG B%2BWPAXhNI9e0rX3cJlmWwe%2FGBLmVrGmT01On6KBQgqmxPNljrLLdefuuQjjN19BgOr%2FS93rKPWbCb goJ4dRgDoh%2FXgwn> (accessed September 11, 2023) (“The obligation of States parties to respect and ensure the right to life extends to reasonably foreseeable threats and life-threatening situations that can result in loss of life.”).

³³⁴ *Ibid.* para 62.

³³⁵ UN Human Rights Committee, Views adopted by the Committee under article 5 (4) of the Optional Protocol, concerning communication No. 3624/2019, CCPR/C/135/D/3624/2019, September 22, 2022, https://tbinternet.ohchr.org/_layouts/15/treatybodyexternal/Download.aspx?symbolno=CCPR%2fC%2f135%2fD%2f3624%2f2019&Lang=en at para. 8.3 (With respect to the State party’s position that article 6 (1) of the

Human Rights Responsibilities of Companies

The UN Guiding Principles on Business and Human Rights, unanimously endorsed by the UN Human Rights Council in 2011,³³⁶ are the internationally-accepted framework for addressing the risk of human rights impacts by businesses. The Guiding Principles make clear that businesses have the responsibility to “[a]void causing or contributing to adverse human rights impacts through their own activities and address such impacts when they occur.”³³⁷ The obligation to avoid causing or contributing to human rights harms applies to acts such as deforestation, which adversely affects human life and health, ecosystems and biodiversity.³³⁸

Businesses must also “seek to prevent or mitigate” impacts that are “directly linked to their operations, products or services by their business relationships,” including entities in their value chain, even if they have not contributed to those impacts.³³⁹

To fulfill these responsibilities, companies should have in place due diligence processes that assess actual and potential impacts, act upon the findings, track responses and communicate how the impacts are addressed.³⁴⁰ The human rights due diligence should cover environmental and climate-related harms that impact human rights, including the right to water and the right to a healthy environment. When a business determines that it has caused or contributed to adverse impacts, it should provide for remediation.³⁴¹ When it identifies adverse impacts in its value chain, it should use whatever leverage it has to change the harmful practice. If it

Covenant does not obligate it to prevent foreseeable loss of life from climate change, the Committee recalls that the right to life cannot be properly understood if it is interpreted in a restrictive manner and that the protection of that right requires States parties to adopt positive measures to protect the right to life.); UN Human Rights Committee, Views adopted by the Committee under article 5(4) of the Optional Protocol, concerning communication No. 2751/2016, UN Doc. CCPR/C/126/D/2751/2016 (2019), para. 7.3-7.4).

³³⁶ UN Human Rights Council, Resolution 17/4: Human Rights and transnational corporation and other business enterprises, A/HRC/RES/17/4, July 6, 2011, <https://documents-dds-ny.un.org/doc/RESOLUTION/GEN/G11/144/71/PDF/G1114471.pdf?OpenElement>.

³³⁷ Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises, “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘Protect, Respect and Remedy’ Framework,” UN document A/HRC/17/31, March 21, 2011, https://www.ohchr.org/Documents/Issues/Business/A-HRC-17-31_AEV.pdf, principle 13(a) (accessed July 14, 2023).

³³⁸ OHCHR, “Frequently Asked Questions on Human Rights and Climate Change, Fact Sheet, No. 38,” 2021, https://www.ohchr.org/sites/default/files/2021-09/FSheet38_FAQ_HR_CC_EN_0.pdf. See also UN Human Rights Special Procedures, Working Group on the issue of human rights and transnational corporations and other business enterprises, “Information Note on Climate Change and the Guiding Principles on Business and Human Rights,” June, 2023, <https://www.ohchr.org/sites/default/files/documents/issues/business/workinggroupbusiness/Information-Note-Climate-Change-and-UNGPs.pdf>, para. 16 (The responsibilities of business enterprises under the Guiding Principles...include the responsibility to act in regard to actual and potential impacts related to climate change.”).

³³⁹ Ibid, principle 13(b).

³⁴⁰ Ibid, principle 17.

³⁴¹ Ibid, principle 22.

lacks sufficient leverage to prevent or mitigate the adverse impacts, it should consider ending the relationship.³⁴²

The OECD's Guidelines for Multinational Enterprises similarly provide that businesses should carry out risk-based due diligence to identify, prevent and mitigate actual and potential adverse impacts on human rights³⁴³ and the environment, including deforestation.³⁴⁴ While Indonesia is not a member of the OECD, it is considered a key partner.³⁴⁵ An enterprise "causes" an adverse impact if its activities on their own are sufficient to result in the adverse impact; it "contributes" if "its activities, in combination with the activities of other entities cause the impact, or if the activities of the enterprise cause, facilitate or incentivize another entity to cause an adverse impact."³⁴⁶ Just like in the UN Guiding Principles, even if the enterprise does not cause or contribute to the impact, it still has a responsibility to prevent and mitigate impacts directly linked to a "business relationship," including "entities in the supply chain which supply products or services that contribute to the enterprise's own operations, products or services."³⁴⁷

German Supply Chain Due Diligence Act

Germany's Supply Chain Due Diligence Act, which took effect on January 1, 2023, imposes a binding obligation on companies to establish, implement, and update due diligence procedures in their supply chains to improve compliance with specified human rights, including negative impacts on the environment that affect people.³⁴⁸ The act defines "supply chain" to include all steps in Germany and abroad which are

³⁴² Ibid, principle 19(b) commentary. See also UN Human Rights Special Procedures, Working Group on the issue of human rights and transnational corporations and other business enterprises, "Information Note on Climate Change and the Guiding Principles on Business and Human Rights," June, 2023, <https://www.ohchr.org/sites/default/files/documents/issues/business/workinggroupbusiness/Information-Note-Climate-Change-and-UNGPs.pdf> ("The responsibilities of business enterprises under the Guiding Principles...include the responsibility to act in regard to actual and potential impacts related to climate change."), para. 17(g).

³⁴³ OECD Guidelines, principle IV.

³⁴⁴ OECD, "OECD Guidelines for Multinational Enterprises on Responsible Business Conduct," 2023, <https://www.oecd-ilibrary.org/docserver/81f92357-en.pdf?expires=1692737412&id=id&accname=guest&checksum=A346CD0BBAF7F84311A1A0B63F62F09A>, principle VI, p. 33 (accessed July 14, 2023).

³⁴⁵ Indonesia has reportedly expressed interest in becoming a member of the OECD. John West, "Indonesia's quest to join the OECD and become a high income country," *East Asia Forum*, Sept. 10, 2023, <https://www.eastasiaforum.org/2023/09/10/indonesias-quest-to-join-the-oecd-and-become-a-high-income-country/>

³⁴⁶ Ibid, para. 68, p. 36.

³⁴⁷ Ibid, para. 17, p. 18.

³⁴⁸ Act on Corporate Due Diligence in Supply Chains, https://www.bmas.de/SharedDocs/Downloads/DE/Internationales/act-corporate-due-diligence-obligations-supply-chains.pdf?__blob=publicationFile&v=3 (official translation).

required to produce the products and provide the services of a company – starting from the extraction of raw materials up to the delivery to the end customer.³⁴⁹

The law currently applies to German or foreign companies with at least 3000 employees in Germany and will be extended in January 2024 to include companies with at least 1000 employees in Germany.

The law requires these companies not only to identify and assess third parties' impact on specified human rights and the environment, but to prevent and remedy any adverse impacts. Eligible companies must publish an annual report which spells out their approach to identifying and mitigating risks. Violations of the law are punishable by penalties of up to two percent of a company's annual average sales.

French Due Diligence Law

In 2017, France passed a new corporate due diligence law, called the duty of vigilance law, imposing a legally binding obligation on large parent companies to identify, prevent, mitigate and redress human rights and environmental impacts resulting from their own activities as well as from the operations of companies under their control, subcontractors and suppliers with whom they have an established business relationship.³⁵⁰ The law requires the parent company to publish and implement a detailed due diligence plan or account for the failure to do so. The plan must include a mapping that identifies, analyzes and ranks risks; procedures to regularly assess, in accordance with the risk mapping, the situation of subsidiaries, subcontractors or suppliers with whom the company maintains an established commercial relationship; appropriate actions to mitigate risks or prevent serious violations; an alert mechanism that collects potential or actual risks; and a monitoring scheme to follow up on the measures implemented and assess their efficiency.

The French law applies to companies whose head office is in France and employs at least 5,000 employees, and companies headquartered in France or abroad with at least 10,000 employees within the company and its direct and indirect subsidiaries.

Relevant EU Laws and Regulations

³⁴⁹ ECCHR et al., "German Supply Chain Act: Implementation from below," September 2023, https://www.ecchr.eu/fileadmin/user_upload/ECCHR_PP_SUPPLY_CHAIN_EN_PF.pdf (accessed November 7, 2023).

³⁵⁰ Duty of Vigilance Law, English translation by the European Coalition for Corporate Justice, <https://respect.international/french-corporate-duty-of-vigilance-law-english-translation/>.

The EU Corporate Sustainability Due Diligence Directive (CSDDD) was agreed upon by the EU Parliament and Council in December 2023 and obligates EU companies to ensure supply chains do not contribute to environmental or human rights abuses. The directive applies to companies with more than 500 employees and a net worldwide turnover of €150 million. The CSDDD also requires companies to adopt and put into effect a transition plan for climate mitigation.³⁵¹ The European Parliament plenary and EU member states' ministers are now set to adopt the CSDDD in 2024.

The draft EU Critical Raw Materials Act (CRMA) is focused on diversifying the supply of 34 critical raw materials, including nickel, and increasing circularity, including recyclability, for those materials.³⁵² The Act was approved by the European Parliament in December 2023 and will need to be approved by EU member states' ministers before coming into force. While the draft CRMA does not explicitly mention FPIC, it references the UN Declaration on the Rights of Indigenous Peoples, which sets forth that right. Civil society organizations have expressed concern that the draft Act overrelies on certification schemes to ensure projects outside of the EU are in compliance with the regulation.³⁵³

The new EU Batteries Regulation was adopted in July 2023 to address the safety and sustainability of batteries, including EV batteries, throughout their lifecycle. As part of the circular economy, the regulation establishes the following:

The regulation sets a target for lithium **recovery from waste batteries** of 50% by the end of 2027 and 80% by the end of 2031, which can be amended through delegated acts depending on market and technological developments and the availability of lithium.

The regulation provides for **mandatory minimum levels of recycled content** for industrial, SLI batteries and EV batteries. These are initially set at 16% for cobalt, 85% for lead, 6% for lithium and 6% for nickel. Batteries will have to hold a **recycled content documentation**.

³⁵¹ European Council, "Corporate sustainability due diligence: Council and Parliament strike deal to protect environment and human rights," December 14, 2023, <https://www.consilium.europa.eu/en/press/press-releases/2023/12/14/corporate-sustainability-due-diligence-council-and-parliament-strike-deal-to-protect-environment-and-human-rights/> (accessed December 15, 2023).

³⁵² European Council, "Infographic - An EU critical raw materials act for the future of EU supply chains," November 21, 2023, <https://www.consilium.europa.eu/en/infographics/critical-raw-materials/> (accessed December 13, 2023).

³⁵³ European Environmental Bureau, "EU's Critical Raw Materials Act: Improved ambitions, but language still raises concerns for Environmental Standards, Indigenous Peoples' Rights Protection, and Demand Reduction," December 12, 2023, <https://eeb.org/eus-critical-raw-materials-act/> (accessed December 13, 2023).

The **recycling efficiency target** for nickel-cadmium batteries is set at 80% by the end of 2025 and 50% by the end 2025 for other waste batteries.³⁵⁴

³⁵⁴ European Council, "Council adopts new regulation on batteries and waste batteries," July 10, 2023, <https://www.consilium.europa.eu/en/press/press-releases/2023/07/10/council-adopts-new-regulation-on-batteries-and-waste-batteries> (accessed December 13, 2023).

X. Relevant Indonesian Law

Indonesian Climate Commitments

By joining the 2015 Paris Agreement, 196 parties, including Indonesia, have agreed to cut greenhouse gas emissions, with the overarching goal of limiting “the increase in the global average temperature to well below 2°C above pre-industrial levels” and pursuing efforts “to limit the temperature increase to 1.5°C.”³⁵⁵ In recent years, global leaders have emphasized the need to hold global warming to 1.5°C by the end of the century, to avoid the most severe consequences of climate change.³⁵⁶

Under the Paris Agreement, each country is required to submit a plan setting forth its greenhouse gas reduction targets and measures it will take to adapt to the impacts of climate change. These plans, referred to as Nationally Determined Contributions (NDCs), must be updated every five years, with increasingly ambitious targets. The Preamble to the Paris Agreement recognizes that “[p]arties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights... the rights of indigenous peoples, local communities...and people in vulnerable situations.”³⁵⁷ Indonesia’s 2022 update to its NDC includes the unconditional target of reducing emissions by 32 percent by 2030, compared to business-as-usual (BAU), and the conditional target of reducing emissions by 43 percent, compared to BAU.³⁵⁸ Climate Action Tracker assessed these targets as, “critically insufficient” to meet the Paris Agreement targets.³⁵⁹

The Indonesian government has also repeatedly committed to halting deforestation globally. The 2014 *New York Declaration on Forests*, endorsed by Indonesia that year, committed to at least halving the rate of loss of natural forests globally by 2020 and striving to end the loss by 2030.³⁶⁰ At the 2021 Conference of the Parties (COP) to the UN Framework Convention on Climate Change (COP26), the Indonesian

³⁵⁵ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2016, T.I.A.S. No. 16-1104, art. 1(a).

³⁵⁶ UN Framework Convention on Climate Change Secretariat, “What is the Paris Agreement,” <https://unfccc.int/process-and-meetings/the-paris-agreement> (accessed July 13, 2023).

³⁵⁷ UNFCCC, Paris Agreement, 2015, https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_english_.pdf.

³⁵⁸ Republic of Indonesia, “Enhanced Nationally Determined Contribution,” 2022, https://unfccc.int/sites/default/files/NDC/2022-09/23.09.2022_Enhanced%20NDC%20Indonesia.pdf (accessed December 12, 2023).

³⁵⁹ Climate Action Tracker, “Indonesia,” December 4, 2023, <https://climateactiontracker.org/countries/indonesia/> (accessed December 15, 2023).

³⁶⁰ New York Declaration on Forests,” Climate Action Summit 2014, https://forestdeclaration.org/wp-content/uploads/2021/08/NYDF_Declaration.pdf (accessed December 12, 2023).

and 139 other governments again committed “to working collectively to halt and reverse forest loss and land degradation by 2030.”³⁶¹

Indonesian Law and Regulations Relating to Land

Since independence, Indonesia has developed a broad range of regulations governing land ownership and rights, which have evolved over time. The Basic Agrarian Law of 1960 is still in use today and is considered to be the umbrella law governing land rights, customary rights, and land acquisition for the public interest.³⁶²

The Basic Agrarian Law stipulates that the state has authority to regulate and administer land use in the public interest.³⁶³ Under the law, all citizens have the same opportunity to own, lease, or use land, and are entitled to land certificates such as Land or Structure Use Rights (*Hak Guna*) and Ownership (*Hak Milik*).³⁶⁴ However, the application of the law has often been arbitrary, leading to conflicts around the country, some of them violent.³⁶⁵

The process of land acquisition under the New Order regime was often coercive and disregarded due process, with little to no public participation.³⁶⁶ Landowners were forced to accept whatever compensation the government offered, with the police or military frequently deployed to ensure or obtain compliance.³⁶⁷

³⁶¹ “Glasgow Leaders’ Declaration on Forests and Land Use,” November 2, 2021, <https://webarchive.nationalarchives.gov.uk/ukgwa/20230418175226/https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>.

³⁶² BK Illahi, *The Conversation*, “Enam dekade UU Pokok Agraria: reformasi pertanahan masih jalan di tempat, ancaman menghadang di depan,” September 24, 2020, <https://theconversation.com/enam-dekade-uu-pokok-agraria-reformasi-pertanahan-masih-jalan-di-tempat-ancaman-menghadang-di-depan-146585> (December 4, 2023).

³⁶³ Basic Agrarian Law 1960, <https://zerosugar.files.wordpress.com/2014/08/law-no-5-of-1960-on-basic-agrarian-principles-etlj.pdf> (unofficial translation). The government is to regulate land “to achieve the utmost prosperity --in terms of democracy, welfare, and freedom for the society and legal State of Indonesia which is independent, sovereign, just, and prosperous.” Basic Agrarian Law, chapter 2, article 2(3).

³⁶⁴ Law No. 5 of 1960, Basic Agrarian Law, <https://spi.or.id/wp-content/uploads/2014/11/UNDANG-UNDANG-No-5-Tahun-1960-1.pdf>.

³⁶⁵ Asian Development Bank Institute, “LAND ACQUISITION IN INDONESIA AND LAW NO. 2 OF 2012,” November 2019, <https://www.adb.org/sites/default/files/publication/539731/adbi-wp1036.pdf> (December 4, 2023).

³⁶⁶ Indonesian Center for Environmental Law, “Hari Tani: Masih Menanti Penyelesaian Konflik Agraria,” September 24, 2019, <https://icel.or.id/id-id/search/v/hari-tani-masih-menanti-penyelesaian-konflik-agraria> (accessed December 4, 2023).

³⁶⁷ Asian Development Bank Institute, “LAND ACQUISITION IN INDONESIA AND LAW NO. 2 OF 2012,” November 2019, <https://www.adb.org/sites/default/files/publication/539731/adbi-wp1036.pdf> (December 4, 2023).

The law has often overlapped with presidential and ministerial decrees and provincial regulations.³⁶⁸ Under President Susilo Bambang Yudhoyono, the government enacted Law No. 2 of 2012 on Land Acquisitions in the Public Interest, which superseded previous executive and ministerial decrees, but did not repeal the Basic Agrarian Law. The 2012 law gives power to the national government to acquire land only for the public interest, defined as, “the interest of the nation, state and society which must be realized by the government and used as much as possible for the welfare of the people.”³⁶⁹ It defines the procedure to acquire land to safeguard property rights. For example, prior to land acquisition and development in the public interest, the law mandates public consultation. It provides legal mechanisms to resolve disputes and to challenge the amount of compensation through District Courts, State Administrative Courts, and the Supreme Court. Compensation can be in the form of cash, replacement land, resettlement, or shared ownership. The law states that the appraised value of the land must be “adequate and fair to the entitled party” and that valuations must include structures, plants, objects, and other losses such as loss of income.³⁷⁰

While the Law No. 2 of 2012 was intended to uphold land rights, in practice land grabbing and disputes are still rampant. According to the Agrarian Reform Consortium (KPA), an NGO that monitors agrarian reform and human rights, there were more than 2,710 land disputes throughout Indonesia between 2015 and 2022, impacting 1.7 million families and 5.8 million hectares of land.³⁷¹ The main sectors driving land conflict were palm oil and other plantations, infrastructure development, and other property development. In many cases, the government’s failure to recognize land ownership is contributing to this conflict. After failing to recognize legal land ownership, the Indonesian government may sell or lease lands that are occupied by local communities, but legally classified as state forests, to private companies.

Despite massive protests, in 2020 the Indonesian government passed the pro-business Job Creation Law (more commonly known as the Omnibus Law because of its many and often unrelated provisions) to promote infrastructure development, attract foreign investors, and simplify the process of licensing business.³⁷² In practice,

³⁶⁸ V Sucahyo, VOA, “UU di Indonesia: Terlalu Banyak, Tumpang Tindih dan Tidak Sinkron,” February 3, 2021, <https://www.voaindonesia.com/a/uu-di-indonesia-terlalu-banyak-tumpang-tindih-dan-tidak-sinkron/5763310.html> (accessed December 4, 2023).

³⁶⁹ Law No. 2 of 2012, English translation, https://peraturan.go.id/files2/uu-no-2-tahun-2012_terjemah.pdf.

³⁷⁰ Law No. 2 of 2012, <https://peraturan.bpk.go.id/Home/Details/39012>.

³⁷¹ CNN Indonesia, “KPA Data: 2,710 Agrarian Conflicts During 9 Years of Jokowi's Government,” September 24, 2023, <https://www.cnnindonesia.com/nasional/20230924150644-20-1003085/data-kpa-2710-konflik-agraria-selama-9-tahun-pemerintahan-jokowi> (accessed November 20, 2023).

³⁷² I Nurdin, *Lokataru*, “Omnibus Law dan Hukum Agraria Kolonial,” n.d., <https://lokataru.id/iwan-nurdin-omnibus-law-dan-hukum-agraria-kolonial/> (accessed December 4, 2023).

the law further threatens Indigenous Peoples' rights by weakening environmental and labor laws and making it easier for companies to acquire customary lands.³⁷³

To lure investors, the law introduced a new institution, the Land Bank Authority (*Bank Tanah*), to manage state-owned land to be used for the national or public interest by granting Land Management Rights (HPL) for 80 years, up from 70 years, creating an even greater incentive to displace people living in resource-rich areas.³⁷⁴ The lack of legal recognition of customary land rights furthers the displacement of people, including indigenous communities.

Indonesian Law on Indigenous and Customary Land Rights

Indonesia's constitution, laws, and decrees recognize the existence of traditional (*adat*) communities, including their customary rights. However, the application of communal rights to traditional lands has been inconsistent at best. Historically, forest areas were classified as either state forests or privately titled forests. While the Basic Agrarian Law acknowledges Indigenous communities and their respective customary rights, it states that "customary rights should be in line with state and national interests," and does not provide a clear process for Indigenous Peoples to register their land in order to obtain legal recognition or a land certificate.³⁷⁵ Law No. 2 of 2012 describes compensation for customary lands: "Compensation for customary land rights is provided in the form of replacement land, resettlement, or other forms agreed upon by the customary law community concerned."

Indigenous groups were only granted legal authority to their customary territories, including customary forests, in a Constitutional Court ruling in May 2013.³⁷⁶ However, the Ministry of Environment and Forestry has been slow to reclassify Indigenous lands as customary forests.

In 2019, the Ministry of Agrarian Affairs and Spatial Planning and National Land Agency passed decree No. 18 on Customary Land Administration, which allows Indigenous communities to file for legal recognition of customary land. However,

³⁷³ AMAN, "Undang-undang Omnibus Law Merampas Wilayah Adat ditengah Ketidakpastian Pengesahan Undang-Undang Masyarakat Adat," n.d., <https://www.aman.or.id/wp-content/uploads/2020/10/SIARAN-PERS-Sikap-AMAN-terhadap-UU-Omnibuslaw.pdf> (accessed December 4, 2023); Human Rights Watch, "Indonesia: New Law Hurts Workers, Indigenous Groups," October 15, 2020, <https://www.hrw.org/news/2020/10/15/indonesia-new-law-hurts-workers-indigenous-groups> (accessed March 1, 2023).

³⁷⁴ This new institution was established in December 2021 to provide land for, among others, public and social interest, national strategic projects, and land reform. Indonesia Land Bank Authority, <https://banktanah.id/profile/home>.

³⁷⁵ Law No. 5 of 1960, <https://spi.or.id/wp-content/uploads/2014/11/UNDANG-UNDANG-No-5-Tahun-1960-1.pdf>.

³⁷⁶ Indonesia Forestry Act No. 41, 1999, <https://faolex.fao.org/docs/pdf/ins36649.pdf>; Indonesia Constitutional Court, Decision Number 35/PUU-X/2012, https://en.mkri.id/download/decision/pdf_Decision_35PUU-X2012.pdf.

Indigenous community activists and rights defenders argue that the ministerial decree is still inadequate to protect their rights and to resolve land conflicts.³⁷⁷ The administrative process for legal recognition is often tedious, and Indonesian government, including the Ministry of Environmental and Forestry, has been criticized for issuing what are viewed as pro-investor policies and decisions.³⁷⁸

³⁷⁷ AMAN, "Mengarungi Badai Investasi: Catatan Akhir Tahun 2019 Aliansi Masyarakat Adat Nusantara," January 21, 2020, <https://aman.or.id/news/read/mengarungi-badai-investasi-catatan-akhir-tahun-2019-aliansi-masyarakat-adat-nusantara-aman> (accessed December 5, 2023).

³⁷⁸ A Bhawono, "Masyarakat Adat dalam Ancaman Konflik Agraria," August 11, 2022, <https://betahita.id/news/detail/7861/masyarakat-adat-dalam-ancaman-konflik-agraria-.html> (accessed December 5, 2023).

XI. Recommendations

To Indonesian Authorities:

To the Government of Indonesia:

- Strengthen laws and regulations to minimize the impacts of nickel mining and refining on communities, including on indigenous communities.
- Ratify ILO Convention 169, the Indigenous and Tribal Peoples Convention, and recognize Indigenous Peoples within Indonesia.
- Ensure that mining and all related activities do not lead to serious or preventable environmental damage and other human rights abuses of affected communities.
- Ensure that domestic and foreign companies are fully compliant with Indonesian laws and regulations, including by increasing the supervision of companies who are licensed by the Indonesian government and holding companies that are in violation of environmental or other laws accountable.
- Immediately stop the permitting of all new coal plants, including captive coal plants used in industrial areas.
- Immediately stop the permitting of new nickel mining concessions and smelters, until the sector has taken genuine steps in line with the best available science and technologies to minimize pollution and other harms on nearby communities and the environment.
- Prioritize the rights and interests of people affected by mining operations in the development and monitoring of projects extracting nickel, cobalt, and other minerals throughout Indonesia.
- Create an independent grievance mechanism, with representation from Indigenous Peoples, environmental, and other relevant civil society groups, to investigate and resolve conflicts between mining and smelting companies and communities regarding land rights, environmental pollution, Indigenous Peoples' rights, and other human rights concerns.
- Make information on the recently announced nickel tracking system publicly available, including by regularly posting data to a public website and ensure that information is accessible to mining impacted communities, including by publishing data in local languages.
- Ensure that mining and all related activities are consistent with Indonesia's NDC and the Paris Agreement goal to limit warming to 1.5°C.
- Positively engage in the open-ended intergovernmental working group (OEIGWG) process to negotiate an international legally binding instrument (LBI) on business and human rights that would include specific human rights, labor, environment and climate change provisions and instruments and

complement and strengthen the current U.N. and Organization for Economic Co-operation and Development (OECD) frameworks.

- Increase access to public transit and alternative methods of transport to decrease emissions from private vehicles.
- Mandate minimum levels of recycled content in EV batteries to decrease the demand for virgin critical minerals.

To the House of Representatives:

- Enact the Indigenous Peoples' Rights Bill in order to simplify the process of recognition of Indigenous Peoples and their customary lands.
- Amend the environmental impact assessment process instituted by the Omnibus Law to broadly allow the public, including civil society organizations and community members, the opportunity to participate in decision-making regarding proposed projects.
- Amend the 2020 Omnibus Law to remove provisions weakening Indigenous Peoples' rights, including provisions that contradict the 2013 Constitutional Court ruling on customary land rights.
- Amend the 2020 Mineral and Coal Mining Law article 162 to end the criminalization of peaceful expression, including protests, by activists and organizations.
- Amend the 2020 Mineral and Coal Mining Law article 4 to ensure that regional governments have greater power and authority to monitor, assess, and regulate mining operations in their respective regions.

To the Indonesian Coordinating Ministry of Maritime and Investment Affairs:

- Ensure that companies providing foreign direct investment in the nickel industry are in full compliance with Indonesian laws and regulations.
- Increase supervision of foreign companies to ensure that those companies are fully compliant with Indonesian laws and regulations.

To the Indonesian Ministry of Energy and Mineral Resources:

- Assess, monitor, and conduct investigations into water, air, and soil pollution, and make the findings of investigations publicly available and accessible, including in local languages.
- Suspend, and in serious cases, revoke the permits of mining companies that violate environmental regulations.
 - In cases of suspension, do not allow resumption of activities until violations have stopped, plans are in place to avoid repetition of violations, and remediation with individuals and communities has been carried out.

- Carry out public hearings as part of licensing procedures for mines of all sizes, including expansion projects, and:
 - Ensure those meetings are publicized in advance and accessible to the public, particularly mining-impacted communities.
 - Fully implement FPIC in all mining projects that may impact Indigenous Peoples.

To the Indonesia Ministry of Environment and Forestry:

- Strengthen the review process of environmental impact assessments when granting mining licenses to require that mining companies meet global environmental, social, and governance best practices in their mining operations.
 - Ensure that all environmental impact assessments are publicly available by promptly posting them after submission on a public website and sharing the documents with potentially impacted communities in a culturally appropriate manner.
- Ensure that mining companies have environmentally and socially responsible operations that respect the environment and human rights, such as the practices detailed in the IRMA Standard for Responsible Mining.
- Uphold and implement Law No. 32 of 2009 on the Protection and Management of Environment and impose penalties on companies in violation of that law.
- Work with regional governments and all related agencies to ensure that mining companies are fully compliant with environmental laws and regulations.
- Establish a moratorium on mining in protected forest areas and stop issuing future mining concessions in primary forests, high carbon stock forests, and high conservation value forests.
- Monitor the impacts of mining-related deforestation, including impacts on fresh and saltwater resources and, when necessary, fine or revoke the licenses of mining companies that fail to properly prevent serious impacts of mining-related deforestation on the environment, including fresh and groundwater pollution and erosion.
- Monitor the waste management activities of mining companies and, when necessary, fine or revoke the licenses of mining companies that fail to properly mitigate mining waste.
- Make air and water quality information, including information provided to the Ministry by mining and smelting companies, publicly available and accessible.
- Work with the Ministry of Agrarian Affairs and Spatial Planning to accelerate and simplify the process of granting legal recognition of customary land and forests to protect Indigenous communities' land rights.

To the Ministry of Agrarian Affairs and Spatial Planning:

- Accelerate and simplify the process of granting legal recognition of customary land to protect Indigenous communities' land rights.
- Work with other government agencies, including the Ministry of Environment and Forestry, the Ministry of Energy and Mineral Resources, and provincial governments, to minimize land conflicts between business actors and local communities.
- Enact a ministerial regulation to prevent the granting of mining concessions on customary lands, including customary lands that have not yet been legally recognized.
- Work with related ministries, including the Ministry of Energy and Mineral Resources, to ensure that mining permits do not violate land rights of local communities.
- Collect data regarding land conflicts between nickel mining and smelting companies and local communities and make that data publicly available and accessible.

To the North Maluku Provincial Government and related agencies:

- Establish a clear channel of communication for the public to file complaints related to mining, smelting, and other industrial activities.
- Engage in a dialogue between companies and affected communities to find solutions related to environmental impacts and other consequences of mining activities and land tenure, as requested by local residents.
- Investigate alleged environmental pollution related to mining activities and make the findings of those investigations publicly available and accessible.
 - If environmental pollution is found in an investigation, work together with relevant ministries including the Ministry of Environment and Forestry to ensure companies are in line with environmental laws and regulations and impose fines on companies that are not in compliance.
- Ensure that mining concessions do not violate regional spatial planning, including by preventing mining licenses in protected forest and other designated protected areas.
- Accelerate and simplify the process of granting legal recognition of customary land to protect Indigenous communities' land rights.

To the National Commission on Human Rights:

- Investigate human rights abuses tied to the nickel industry and make findings publicly available and accessible.

- Adopt a resolution condemning human rights abuses in the mining sector, including those associated with land grabbings, access to a healthy environment, and loss of livelihoods.
- Urge the national and provincial governments to implement recommendations outlined in this report and ensure follow-ups and public accountability for the same.

To the National Police:

- Ensure that the right to protest, including by mining-impacted communities is fully respected and protected.
 - Ensure that all police have been trained to properly protect the right to protestors, including training on limits on the use of force against peaceful protestors.
- Ensure that police personnel do not engage in intimidation or threats against residents who oppose land sales, including by prohibiting police officers from intimidating individuals, including through home visits and other interrogations, who elect not to sell their lands.

To the Judiciary of Indonesia:

- Ensure that affected individuals and communities can fully access the judicial system and can safely file complaints of violations by both corporate and government actors in relation to human rights and the environmental harms.
- Ensure that complaints are fully investigated, and those responsible for violations are held accountable and victims are compensated.

To Companies:

To the Indonesia Weda Bay Industrial Park and its stakeholders Tsingshan Group, Huayou Cobalt, and Zhenshi Group:

- Ensure that all mining and industrial operations at IWIP are carried out in accordance with Indonesian laws and regulations, as well as international standards, such as the IRMA Standard for Responsible Mining and Mineral Processing.
- Fully and fairly compensate all community members with land conflicts with IWIP, including residents in Lelilef and Gemaf.
- Take steps to minimize air, water, and soil pollution from industrial activities by installing air pollution control mechanisms, properly disposing of industrial waste and coal ash, and treating wastewater from industrial facilities and coal plants, based on the best available science and technologies.

- Immediately stop the construction of all new coal plants at the Indonesia Weda Bay Industrial Park.
- Announce a time-bound plan to replace existing coal plants with renewable energy sources as soon as possible.
- Share all information related to existing operations and future expansion, deforestation, land acquisition, industrial activities, and environmental standards related to air and water quality with the public, and make that information accessible to local communities, including by holding public meetings and providing information in local languages.
- Fully respect the rights of Indigenous Peoples living near IWIP, including by ensuring all Indigenous Peoples are able to exercise their right to give Free, Prior, and Informed Consent.
- Regarding grievance mechanisms:
 - Share information about Huayou’s grievance and complaints mechanism with local communities and make those grievance mechanisms accessible by providing multiple channels (e.g. phone, WhatsApp, online) to file a complaint and translating into local languages.
 - For Tsingshan and Zhenshi, establish grievance mechanisms, if they do not already exist, for impacted communities to directly file complaints regarding any environmental or human rights harm caused by the company’s activities.
 - For Tsingshan and Zhenshi, if those mechanisms already exist, expand and make company grievance mechanisms publicly available and accessible through multiple channels and in local languages.

To PT Weda Bay Nickel, including its stakeholders, and other mining companies operating in Halmahera:

- Fully and fairly compensate all community members with land conflicts with WBN or other mining companies.
- Take steps to minimize deforestation in mining areas, including by avoiding mining in areas with young regenerating forests.
- Immediately stop all mining and other related activities in forests that have been historically designated as protected forests by the Indonesian government, primary forests, high carbon stock forests, and high conservation value forests.
- Ensure that mining areas are fully remediated, in line with international best practices, including controlling erosion, repairing impacts to wildlife corridors, and revegetating deforested and other disturbed areas with native plants.

- Ensure that mining tailings are disposed of using the best available science and technologies, for example as described in the IRMA Standard for Responsible Mining and Mineral Processing.
- Prior to acquiring land in a concession area and beginning new mining operations, ensure communities are given full, accurate information about the project, including by holding community meetings and providing information about the project in the local language, and confirm the rights of Indigenous Peoples to exercise Free, Prior, Informed Consent as required by international law.
- Fully respect the rights of Indigenous Peoples, including the O’Hongana Manyawa, including the right to exercise Free, Prior, and Informed Consent.
- Implement effective pollution abatement strategies and low-impact mining techniques, including using best available science and technologies to rehabilitate mining sites and ensuring that the disposal of mining waste and tailings use the best available technology and are designed to minimize harms to people and the environment.
- Refrain from mining in environmentally sensitive and/or biodiverse areas, including the Sagea River and Bokimoruru Cave, to protect the environment and key freshwater and groundwater resources.

To Eramet and BASF:

- Wait to make a final investment decision regarding the Sonic Bay project until all land conflicts between IWIP and local communities at the proposed Sonic Bay project site are resolved and those community members are fully and fairly compensated for their lands.
- If the project goes forward, ensure that waste from the proposed Sonic Bay plant does not contribute to environmental pollution by establishing its own waste management system to neutralize acid waste and effectively abate air and water pollution.
- Ensure that nickel smelting operations, including an HPAL plant, do not use coal power.
- Invest in renewable energy to power the proposed Sonic Bay project.
- Share information about Eramet and BASF grievance and complaints mechanisms with local communities and make those grievance mechanisms accessible by providing multiple channels (e.g. phone, WhatsApp, online) to file a complaint and translating into local languages.
- Ensure that IWIP received Free, Prior, and Informed Consent from Indigenous Peoples who are living near or otherwise impacted by the industrial park.

To POSCO:

- Pause development of POSCO's nickel refinery at IWIP until all land conflicts between IWIP and local communities at the proposed project site are resolved and those community members are fully and fairly compensated for their lands.
- Ensure that waste from the proposed POSCO refinery at IWIP does not contribute to environmental pollution by establishing its own waste management system and effectively abating air and water pollution using the best available science and technologies.
- Ensure that nickel smelting operations, including at IWIP, do not use coal power.
- Invest in renewable energy to power the proposed nickel refinery.
- Share information about POSCO's grievance mechanism with local communities and make that grievance mechanism accessible by providing multiple channels (e.g. phone, WhatsApp, online) to file a complaint and translating into local languages.
- Ensure that IWIP received Free, Prior, and Informed Consent from Indigenous Peoples who are living near or otherwise impacted by the industrial park.

To all nickel smelting and refining companies operating at IWIP:

- Take steps to minimize air, water, and soil pollution from industrial activities by installing air pollution control mechanisms, properly disposing of industrial waste and coal ash, and treating wastewater from industrial facilities and coal plants, using the best available science and technologies.
- Invest in renewable energy to power industrial activities and make concrete plans to decarbonize energy sources.

To Tesla, Volkswagen, Ford, and other electric vehicle companies sourcing nickel from producers at IWIP and other industrial parks in Indonesia, and all other global electric vehicle companies that may source nickel from Indonesia:

- Leverage buying power to pressure mines and/or suppliers to change practices that cause environmental or human rights harm, and if necessary, stop sourcing nickel from producers engaged in human rights violations.
- Demand that nickel suppliers, including companies at IWIP, stop the construction of all new coal plants and produce a time bound plan to power operations using renewables.
- Account for the Scope 3 emissions of critical minerals used in EVs in annual reporting.
- Increase transparency about EV supply chains by providing public information about all companies in your supply chain engaged in mineral mining, refining, smelting, and battery production.

- Conduct regular, independent, and transparent audits of mines and facilities where critical minerals are mined and refined to ensure that suppliers are following procedures that protect and respect human rights and Indigenous Peoples' rights, meet environmental standards, and don't contribute to climate change.
- In the case that a supplier is not compliant with environmental or human rights standards, cooperate in providing remediation to address the violations and, if necessary, withdraw or terminate the business relationship if violations are not mitigated in a timely manner.

To companies that produce electric vehicles in Germany:

- In line with the German Supply Chain Due Diligence Act, fully investigate all supply chains, including for nickel, for human rights abuses, including environmental harms that lead to human rights abuses.
- Conduct regular, independent, and transparent audits of mines and facilities where nickel and other critical minerals are mined and refined to ensure that suppliers respect human rights.
- In the case that a supplier is not compliant with environmental or human rights standards, carry out immediate and fully transparent remedial actions to address the violations and, if necessary, withdraw or terminate the business relationship if violations are not mitigated in a timely manner.

To Foreign Governments:

To the European Union and its Member States:

- Related to the EU Critical Raw Materials Act:
 - Adopt the Act.
 - Ensure that the extraction and processing of critical materials, including nickel, fully respects the rights of local peoples, including Indigenous Peoples, including the right to Free, Prior and Informed Consent.
 - Publicly share a roadmap for how the EU plans to implement the provision in the Act to not rely on one country for more than 65 percent for any one material.
 - Establish specific and concrete criteria to uphold human rights and environmental sustainability in critical raw material value chains in third countries.
- In line with the EU Batteries Regulation:

- Make a concrete action plan to ensure that, “The expected massive increase in demand for batteries in the Union should not contribute to an increase of such environmental and social risks,” in third countries, including Indonesia.
 - Ensure that all electric vehicle battery producers and users, “reduce adverse impacts of batteries on the environment and ensure a safe and sustainable battery value chain for all batteries, taking into account, for instance, the carbon footprint of battery manufacturing, ethical sourcing of raw materials and security of supply, and facilitating re-use, repurposing and recycling.”
 - Ensure companies take the carbon emissions of battery materials, including nickel, into account in the sourcing of those materials.
 - Mandate minimum levels of recycled content in EV batteries to decrease the demand for virgin critical minerals.
- Adopt the EU Corporate Sustainability Due Diligence Directive (CSDDD).
 - Provide financial and technical support to Indonesia’s energy transition among others through the Just Energy Transition Partnership, including by:
 - Increasing grant funding to Indonesia’s JETP to ensure that debt is not a limiting factor in the country’s decarbonization of its energy system.
 - Providing financial and technical support specific to the energy transition in the mining and mineral processing industry, including at nickel industrial parks.
 - Pushing the JTEP Secretariat to revise the Comprehensive Investment and Policy Plan to:
 - Include emissions from captive coal plants in its decarbonization strategy;
 - Include a clear, timebound pathway to decommission existing captive coal plants and stop the construction of new captive coal plants, including coal plants at nickel industrial parks;
 - Provide support for small renewable energy projects as well as medium and large size projects; and
 - Include specific safeguards for human rights in the energy transition.
- Increase access to public transit and alternative methods of transport to decrease emissions from private vehicles.
 - Positively engage in the open-ended intergovernmental working group (OEIGWG) process to negotiate an international legally binding instrument (LBI) on business and human rights that would include specific human rights, labor, environment and climate change provisions and instruments and complement and strengthen the current U.N. and Organization for Economic

Co-operation and Development (OECD) frameworks by adopting an ambition EU mandate for the OEIGWG negotiations.

To the United States Government:

- Ensure that any critical mineral trade deal, with Indonesia or another country, incorporates strong, enforced human rights and environmental protections.
- In line with the Indo-Pacific Economic Framework for Prosperity (IPFP), ensure that trade with Indonesia prioritizes a “Clean Economy” and imported Indonesian goods are not produced using coal and other fossil fuels.³⁷⁹
- Provide financial and technical support to Indonesia’s energy transition through the Just Energy Transition Partnership, including by:
 - Increasing grant funding to Indonesia’s JETP to ensure that debt is not a limiting factor in the country’s decarbonization of its energy system.
 - Providing financial and technical support specific to the energy transition in the mining and mineral processing industry, including at nickel industrial parks.
 - Pushing the JETP Secretariat to revise the Comprehensive Investment and Policy Plan to:
 - Include emissions from captive coal plants in its decarbonization strategy;
 - Include a clear, timebound pathway to decommission existing captive coal plants and stop the construction of new captive coal plants, including coal plants at nickel industrial parks;
 - Provide support for small renewable energy projects as well as medium and large size projects; and
 - Include specific safeguards for human rights in the energy transition.
- Positively engage in the open-ended intergovernmental working group (OEIGWG) process to negotiate an international legally binding instrument (LBI) on business and human rights that would include specific human rights, labor, environment and climate change provisions and instruments and complement and strengthen the current U.N. and Organization for Economic Co-operation and Development (OECD) frameworks by adopting an ambition U.S. mandate for the OEIGWG negotiations.
- Increase access to public transit and alternative methods of transport to decrease emissions from private vehicles.

³⁷⁹ The White House, “FACT SHEET: In Asia, President Biden and a Dozen Indo-Pacific Partners Launch the Indo-Pacific Economic Framework for Prosperity,” May 23, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/fact-sheet-in-asia-president-biden-and-a-dozen-indo-pacific-partners-launch-the-indo-pacific-economic-framework-for-prosperity/> (accessed October 1, 2023).

- Mandate minimum levels of recycled content in EV batteries to decrease the demand for virgin critical minerals.

To the Chinese Government:

- Ensure that Chinese mining and mineral processing companies fully comply with international standards and laws related to the environment and human rights.
- Provide financial and technical support for Indonesia's energy transition, for example through Indonesia's Just Energy Transition Partnership (JETP) or through bilateral aid, including by increasing grant funding to ensure that debt is not a limiting factor in the country's decarbonization of its energy system.
- Investigate allegations of social and environmental harms related to the activities of Chinese mining companies operating overseas, including in Indonesia, through the newly announced Responsible Critical Mineral Initiative (RCI) and China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMI) accountability mechanism for the mining sector, and hold companies accountable if abuses are found, repair damage caused, and compensate victims and communities who have suffered social and/or environmental harms.
- Clarify that President Xi's statement committing to not fund overseas coal plants also applies to private companies and to captive coal plants.
- In line with China's Ministry of Commerce and Ministry of Ecology and Environment's Green Development Guidelines for Overseas Investment and Cooperation, encourage Chinese companies operating in foreign countries, including Indonesia, to follow international, or when higher, Chinese standards, if host country standards are inadequate to protect the environment.
- Increase access to public transit and alternative methods of transport in China to decrease emissions from private vehicles.
- Mandate minimum levels of recycled content in EV batteries in China to decrease the demand for virgin critical minerals.

All Countries Should:

- Support and positively engage in the ongoing negotiations to develop a new international legally binding instrument (LBI) to regulate –through international law- responsible business conduct in relation to the protection of human rights, the environment and climate that will complement and strengthen the current UN and OECD frameworks. The LBI should among other things:

- Include strong and clear references to all international human rights law and instruments, including human rights treaties and International Labour Organization conventions;
- Address the urgency of the triple planetary crisis of human-induced climate change, biodiversity loss and pollution, and include references to international obligations in this regard, including the Paris Agreement;
- Include a clear protection obligation for the rights and safety of all stakeholders including human rights, environmental and climate defenders, Indigenous Peoples, community representatives, workers and trade union representatives, youth and journalists; and
- Ensure access to justice for victims of violations.

XII. Acknowledgements

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Most importantly, this report would not be possible without the community members in Central and East Halmahera for sharing their stories with us.

XIII. Appendices

Appendix 1: Correspondence with companies and ministries

For copies of correspondence please visit www.cri.org/reports/nickel-uneartthed

Appendix 2: Shareholders of publicly listed companies

Company	Name of Shareholders	No. Of Shares	Shareholding Ratio
Antam	PT MINERAL INDUSTRI INDONESIA (PERSERO)	15,619,999,999	65.00%
	BNYM RE BNYMLB RE EMPLOYEES PROVIDENTFD BOARD-2039927326	377,308,600	1.57%
	DJS KETENAGAKERJAAN PROGRAM JHT	258,296,000	1.07%
	DJS KETENAGAKERJAAN PROGRAM JP	193,537,800	0.81%
	JUNI SETIAWATI WONOWIDJOJO	118,247,100	0.49%
	JPMCB NA RE-VANGUARD TOTAL INTERNATIONAL STOCK INDEX FUND	117,574,097	0.49%
	JPMCB NA RE - VANGUARD EMERGING MARKETS STOCK INDEX FUND	116,220,710	0.48%
	DJS KETENAGAKERJAAN PROGRAM JAMINAN KECELAKAAN KERJA	99,702,924	0.41%
	CITIBANK NEW YORK S/A GOVERNMENT OF NORWAY -1	97,210,400	0.40%
	PT. TASPEN	84,958,000	0.35%
BASF	The Vanguard Group, Inc.	31,166,355	3.49%
	Norges Bank Investment Management	15,685,161	1.76%
	Union Investment Privatfonds GmbH	7,719,334	0.86%
	Franklin Advisers, Inc.	5,998,244	0.67%
	Geode Capital Management LLC	5,345,397	0.60%
	DWS Investment GmbH	5,275,420	0.59%
	Dimensional Fund Advisors LP	4,435,579	0.50%
	Amundi Asset Management SA (Investment Management)	4,083,436	0.46%
	Barings (UK) Ltd.	3,942,620	0.44%
	Capital Research & Management Co. (World Investors)	3,431,258	0.38%
CNGR	Legend Capital Co. Ltd.	16,569,342	7.25%
	Guizhou Financial Holding Group Co. Ltd.	13,730,000	6.01%
	Qianhai Fangzhou Asset Management Co. Ltd.	11,470,000	5.02%
	ABC-CA Fund Management Co., Ltd.	10,229,390	4.48%
	SDIC Chuangyi Industry Fund Management Co. Ltd.	9,487,027	4.15%
	E Fund Management Co., Ltd.	4,351,132	1.90%
	Fortune & Royal Asset Management Co., Ltd.	4,246,284	1.86%
	Cinda Capital Management Co. Ltd.	4,246,284	1.86%
	Caitong Fund Management Co., Ltd.	3,897,694	1.71%
	Cinda Fund Management Co. Ltd.	3,348,974	1.47%
Eramet	Duval Family	10,661,562	37.08%
	Government of France	7,801,093	27.13%
	Société Territoriale Caledonienne de Participation Ind	1,159,994	4.03%
	The Vanguard Group, Inc.	337,225	1.17%
	Norges Bank Investment Management	246,797	0.86%
	ERAMET	212,801	0.74%
	T. Rowe Price International Ltd.	191,040	0.66%
	Invesco Asset Management Ltd.	176,039	0.61%
	Dimensional Fund Advisors LP	156,101	0.54%
	Grantham, Mayo, Van Otterloo & Co. LLC	126,452	0.44%
EVE Energy	GF Fund Management Co., Ltd.	74,886,127	4.051%
	E Fund Management Co., Ltd.	49,465,609	2.676%
	Zhong Ou Asset Management Co., Ltd	41,253,668	2.232%
	ICBC Credit Suisse Asset Management Co., Ltd.	22,869,069	1.237%
	Fullgoal Fund Management Co., Ltd.	21,718,821	1.175%
	China Asset Management Co., Ltd.	21,523,696	1.164%
	Bosera Asset Management Co., Ltd.	20,732,899	1.122%
	China Universal Asset Management Co., Ltd.	19,978,551	1.081%
	JPMorgan Asset Management (China) Co Ltd.	16,652,535	0.900%
	First Seafont Fund Management Co., Ltd.	16,379,617	0.886%

Ford	The Vanguard Group, Inc.	326,267,252	8.30%
	Newport Trust Co.	148,509,406	3.78%
	Geode Capital Management LLC	67,124,401	1.71%
	Norges Bank Investment Management	36,047,928	0.92%
	Renaissance Technologies LLC	27,253,909	0.69%
	Two Sigma Advisers LP	21,364,000	0.54%
	Two Sigma Investments LP	19,020,649	0.48%
	Merrill Lynch, Pierce, Fenner & Smith, Inc.	17,378,308	0.44%
	Arrowstreet Capital LP	16,794,427	0.43%
	Dimensional Fund Advisors LP	16,478,366	0.42%
Huayou Cobalt	Xue Hua Chen	370,320,428	23.44%
	Hangzhou Houyou Enterprise Management Co. Ltd.	79,687,076	5.04%
	China Asset Management Co., Ltd.	54,858,867	3.47%
	UBS SDIC Fund Management Co., Ltd.	29,065,505	1.84%
	China Universal Asset Management Co., Ltd.	21,384,076	1.35%
	Guotai Asset Management Co., Ltd.	19,577,642	1.24%
	Aegon-Industrial Fund Management Co., Ltd.	16,919,953	1.07%
	Schroder Investment Management North America, Inc.	14,886,280	0.94%
	Bank of Communications Schroder Fund Management Co., Ltd.	13,447,253	0.85%
	Bosera Asset Management Co., Ltd.	13,428,756	0.85%
Nickel Industries	PT DANUSA TAMBANG NUSANTARA	857,000,000	20.00%
	DECENT INVESTMENT INTERNATIONAL PRIVATE LIMITED	672,647,474	15.69%
	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	546,040,451	12.74%
	CITICORP NOMINEES PTY LIMITED	431,951,980	10.08%
	JP MORGAN NOMINEES AUSTRALIA PTY LIMITED	206,489,119	4.82%
	PT HARUM ENERGY TBK	178,485,571	4.16%
	SHANGHAI DECENT INVESTMENT (GROUP) CO LTD	161,696,446	3.77%
	BNP PARIBAS NOMS PTY LTD	158,577,509	3.70%
	DECENT RESOURCE LIMITED	108,122,223	2.52%
	SHANGHAI WANLU INVESTMENT CO LTD	97,258,258	2.27%
POSCO	Dimensional Fund Advisors LP	1,253,629	0.37%
	SSgA Funds Management, Inc.	834,840	0.25%
	Aperio Group LLC	756,243	0.22%
	Parametric Portfolio Associates L...	521,458	0.15%
	Grantham, Mayo, Van Otterloo & Co...	463,835	0.14%
	The Vanguard Group, Inc.	326,129	0.10%
	Connor, Clark & Lunn Investment M...	303,046	0.09%
	American Century Investment Manag...	271,763	0.08%
	BNP Paribas Arbitrage SNC	254,368	0.08%
	Northern Trust Investments, Inc.(...	156,626	0.05%
Tesla	Elon Musk	411,062,076	12.93%
	The Vanguard Group, Inc.	218,824,294	6.88%
	Geode Capital Management LLC	50,200,549	1.58%
	Norges Bank Investment Management	28,158,765	0.89%
	Capital Research & Management Co. (Global Investors)	25,221,048	0.79%
	Capital Research & Management Co. (World Investors)	18,481,551	0.58%
	Fidelity Management & Research Co. LLC	17,794,696	0.56%
	JPMorgan Investment Management, Inc.	16,115,460	0.51%
	T. Rowe Price Associates, Inc. (Investment Management)	13,877,985	0.44%
	Jennison Associates LLC	13,736,423	0.43%
Volkswagen	PORSCHE AUTOMOBIL HOLDING SE	2,630,314	1.28%
	Qatar Investment Authority (Investment Company)	2,470,733	1.20%
	Barings (UK) Ltd.	1,213,452	0.59%
	Union Investment Privatfonds GmbH	1,111,875	0.54%
	SEI Investments (Europe) Ltd.	556,659	0.27%
	Newton Investment Management Ltd.	554,943	0.27%
	Fisher Asset Management LLC	411,308	0.20%
	Amundi Deutschland GmbH	374,999	0.18%
	CAPFI DELEN Asset Management NV	307,794	0.15%
	ODIN Forvaltning AS	240,693	0.12%

Appendix 3: Mining companies in Central and Eastern Halmahera and deforestation data.

Company Name	Mining Business License Number	License Effective Year	Concession Area (ha)	Forest Loss (ha) through 2022	Percent deforested
HARUM SUKSES MINING	540/KEP/327/2009	2009	990	1.35	0.14%
INDO BUMI NICKEL	188.45/152-540/2009	2009	2117	108	5.10%
MAKMUR JAYA LESTARI	188.45/140-545/2009	2009	394.1	64.17	16.28%
CAKRAWALA AGRO BESAR	188.45/540-65.a/2010	2010	8198.29	7.29	0.09%
ANUGRAH BUKIT BESAR	188.45/540-157.A/2010	2010	2111.06	217.8	10.32%
ARUMBA JAYA PERKASA	188.45/174.B-545/2010	2010	1818.47	1.62	0.09%
FORWARD MATRIX INDONESIA	188.45/540-183.A/2010	2010	1721.7	91.44	5.31%
FORWARD MATRIX INDONESIA	188.45/540-179.A/2010	2010	1417	2.43	0.17%
CAKRAWALA AGRO BESAR	188.45/540-184.A/2010	2010	1272.79	46.8	3.68%
ADHITA NIKEL INDONESIA	188.45/540-40.A/2011	2011	2000	201.24	10.06%
HALTIM MINING	188.45/540-166/2011	2011	122.7	120.69	98.36%
BAKTI PERTIWI NUSANTARA	540/KEP/253/2012	2012	1232	114.39	9.28%
DHARMA ROSADI INTERNASIONAL	540/KEP/257/2012	2012	1017	0.27	0.03%
TEKINDO ENERGI	540/KEP/239/2012	2012	1000	578.97	57.90%
SMART MARSINDO	540/KEP/330/2012	2012	666.3	68.49	10.28%
DHARMA ROSADI INTERNASIONAL	540/KEP/255/2012	2012	648	6.93	1.07%
HARUM SUKSES MINING	540/KEP/254/2012	2012	511	0.81	0.16%
ANEKA NIAGA PRIMA	540/KEP/336/2012	2012	459.66	4.23	0.92%
JAYA ABADI SEMESTA	188.45/540-121A/2012	2012	1826	156.42	8.57%
ALNGIT RAYA	188.45/540-105B/2012	2012	137.1	77.94	56.85%
ANUGRAH SUKSES MINING	540/KEP/315/2013	2013	503	47.88	9.52%
LOPOLY MINING CDX	540/KEP/3366.A/2013	2013	47.4	0	0.00%
MEGA HALTIM MINERAL	380.2/KPTS/MU/2016	2016	13510	520.65	3.85%
HALMAHERA SUKSES MINERAL	380.1/KPTS/MU/2016	2016	7726	1263.33	16.35%
POSITION	61/1/IUP/PMA/2017	2017	4017	41.22	1.03%
FIRST PACIFIC MINING	30/1/IUP/PMA/2018	2018	2080	50.04	2.41%
WANA HALMAHERA BARAT PERMAI	502/4/DPMPPTSP/VIII/2018	2018	3986	50.4	1.26%
PRIVEN LESTARI	502/2/DPMPPTSP/VII/2018	2018	4953	26.19	0.53%
WEDA BAY NICKEL	239.K/30/DJB/2019	2019	45065	1456.38	3.23%
KARYA WIJAYA	502/34/DPMPPTSP/XII/2020	2020	500	0	0.00%
ALAM RAYA ABADI	35/1/IUP/PMA/2020	2020	924	3.6	0.39%

Appendix 4: KBLI Smelter Data

In 2023, according to the Ministry of Industry 2023 KBLI database, there are only 18 smelters operating in North Maluku. This list includes all smelting facilities in the province, including smelters at the industrial park on Obi Island, and is not limited to nickel smelters.

Company Name	Location
PT Andalan Metal Industry	Lelilef Sawai
PT Angel Nickel Industry	PT IWIP
PT Debonair Nickel	PT IWIP
PT Halmahera Jaya Feronikel	Obi Island
PT Halmahera Persada Lygend	Obi Island
PT Huafei Nickel Cobalt	PT IWIP
PT Huake Nickel Indonesia	PT IWIP
PT Infei Metal Industry	PT IWIP
PT Jade Bay Metal Industry	PT IWIP
PT Jiu Long Metal Industry	Lelilef Sawai
PT Kao Rahai Smelters	PT IWIP
PT Lin Victor Metal Industry	PT IWIP
PT Lipe Metal Industry	PT IWIP
PT Maluku Utara Metal Industry	Lelilef Sawai
PT Megah Surya Pertiwi	Obi Island
PT Perkasa Metal Industry	Lelilef Sawai
PT Sunny Metal Industry	PT IWIP
PT Youshan Nickel	Lelilef Sawai

Appendix 5: Company Policies on Due Diligence, Human Rights, and Climate Change

Electric Vehicle Companies

Ford

Ford's We Are Committed to Protecting Human Rights and the Environment policy describes its human rights and environmental commitments, including a commitment to respect the UN Guiding Principles on Business and Human Rights. The policy states, "We are committed to preserving the environment for present and future generations. We believe that access to a healthy and clean environment is a basic human right."³⁸⁰ In 2020, Ford announced that it aimed to be carbon neutral by 2050.³⁸¹

In its Supplier Code of Conduct, Ford requires that its suppliers respect human rights and the environment, including the following requirements:

Minimize Their Impact on Climate Change Aligned With The United Nations Framework Convention on Climate Change (Paris Climate Agreement), Striving Towards Carbon Neutrality...

Develop and Implement Human Rights, Environmental and Sustainability Due Diligence Measures to Prevent and Mitigate Issues and to Strive for Positive Impacts.³⁸²

Ford's 2022 Human Rights Report states:

As the transition to electrification extends throughout the auto industry, the increasing need for batteries to power electric vehicles could have a significant impact on human rights. An electric car battery can contain significant amounts of cobalt, lithium, and nickel. In addition, vehicles will continue to use conflict minerals such as tin, tungsten, tantalum, and gold, commonly referred to as 3TG minerals. Sourcing these materials is associated with human rights issues including forced and child labor, access to water and

³⁸⁰ Ford, "We Are Committed to Protecting Human Rights and the Environment," January 12, 2023, <https://corporate.ford.com/content/dam/corporate/us/en-us/documents/reports/we-are-committed-to-protecting-human-rights-and-the-environment-policy.pdf> (accessed September 28, 2023).

³⁸¹ Ford, "FORD EXPANDS CLIMATE CHANGE GOALS, SETS TARGET TO BECOME CARBON NEUTRAL BY 2050: ANNUAL SUSTAINABILITY REPORT," June 24, 2020, <https://media.ford.com/content/fordmedia/fna/us/en/news/2020/06/24/ford-expands-climate-change-goals.html> (accessed March 13, 2023).

³⁸² Ford, "Ford Supplier Code of Conduct," July 2023, https://corporate.ford.com/content/dam/corporate/us/en-us/documents/operations/governance-and-policies/Ford_SupplierCodeOfConduct_2023_FINAL_v3.pdf (accessed September 28, 2023).

sanitation, and air quality. In some cases land rights may also be an issue as many of the minerals used in electric vehicle batteries are located in lands critical for the livelihoods of indigenous people...

In 2021, we began mapping and auditing our EV battery material supply chains. The program will strengthen our responsible sourcing capacity, allow for better risk assessments, and drive continual improvements in transparency, and responsibility in our cobalt, lithium, and nickel supply chains.

Tesla

Tesla has a Supplier Code of Conduct, covering labor practices, health and safety, environment, business ethics, and a company management system, and Tesla requires that suppliers provide records of their compliance with the code and relevant laws and regulations.³⁸³ Tesla's Responsible Sourcing Policy states that the company, "will not tolerate, contribute to, or facilitate the commission by any party in our supply chain," of various environmental and human rights abuses, including:

Serious negative/adverse impacts on the environment and biodiversity, including

- Air and water pollution,
- Deforestation,
- Lack of greenhouse gas emissions management,
- Lack of climate-related risk management,
- The use of hazardous substances, and
- Inappropriate waste management; [or]

Serious negative/adverse impacts on local communities and/or insufficient community engagement, including disrespecting indigenous rights or with regards to environmental, social, and other quality of life factors.³⁸⁴

In addition, Tesla's human rights policy states:

Raw material extraction has historically had an adverse impact on the rights of indigenous peoples and communities in the areas in which they operate. For all raw material extraction and processing used in Tesla products, we expect our suppliers to engage with legitimate representatives of indigenous

³⁸³ Tesla, "Tesla Supplier Code of Conduct," July 2021, <https://www.tesla.com/sites/default/files/about/legal/tesla-supplier-code-of-conduct.pdf> (accessed December 5, 2023).

³⁸⁴ Tesla, "Tesla Responsible Sourcing Policies," April 2023, <https://www.tesla.com/legal/additional-resources#responsible-sourcing-policies> (accessed December 5, 2023).

communities and respect their right to grant or withhold free, prior, and informed consent for their operations.³⁸⁵

Volkswagen

The Declaration by the Volkswagen Group on social rights, industrial relations and business and human rights, “serves as a benchmark for shaping relationships with suppliers,” but does not explicitly discuss the company’s due diligence in its supply chain.³⁸⁶ The Declaration acknowledges international conventions, including the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, and the Universal Declaration of Human Rights.

Volkswagen has announced its commitment to the Paris Agreement, including the goal to limit warming to 1.5°C, and the company has set a 2050 net-carbon-neutrality goal.³⁸⁷ In its Code of Conduct for Business Partners, Volkswagen states:

Business partners take appropriate measures to reduce air emissions that pose a risk to the environment and health, including greenhouse gas emissions. In order to improve the environmental performance of products and services, business partners provide for proactive reduction of greenhouse gas emissions along the entire supply chain, for instance through increased use of carbon neutral energy sources.

Business partners who supply products to the Volkswagen Group provide information to the Volkswagen Group on request at product level in relation to the overall energy consumption in MWh and carbon emissions in tonnes (scope 1, 2 and 3) so that the Volkswagen Group can improve the environmental performance indicators of its products...

Business partners ensure that they do not cause harmful soil modification, water pollution, air pollution, harmful noise emission or excessive water consumption, which may lead to significant impairment of the natural foundations for food and drinking water or the health of a person.³⁸⁸

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³⁸⁵ Tesla, “Tesla Global Human Rights Policy,” April 2023, <https://www.tesla.com/legal/additional-resources#global-human-rights-policy> (September 26, 2023).

³⁸⁶ Volkswagen Group, “Declaration on Social Rights,” December 1, 2020, <https://www.volkswagen-group.com/en/publications/more/declaration-on-social-rights-1869> (accessed September 27, 2023).

³⁸⁷ Volkswagen Group, “Group Sustainability Report 2022,” March 14, 2023, <https://www.volkswagen-group.com/en/publications/more/group-sustainability-report-2022-1644> (accessed September 27, 2023).

³⁸⁸ Volkswagen Group, “Code of Conduct for Business Partner,” July 28, 2023, <https://www.volkswagen-group.com/en/publications/more/code-of-conduct-for-business-partner-1885> (accessed December 5, 2023).

Antam

According to Antam’s statement on human rights within its 2022 Sustainability Report, the company upholds human rights in accordance with the Universal Declaration on Human Rights, ILO conventions, and the United Nations Guiding Principles on Business and Human Rights. In addition, the report states, “ANTAM always respects and upholds the protection of the rights of local communities, including the customary rights of indigenous communities,” and “in every mining location, ANTAM is able to prioritize the customary rights of local communities, especially in areas that directly intersect with the customary territories of local communities.”³⁸⁹

In 2022, Antam announced its plans to use “environmentally friendly fuels” in its operations to support decarbonization, including the Indonesian government’s target to reach net zero emissions by 2060.³⁹⁰ Antam’s Sustainability Report notes that it has developed a decarbonization roadmap, but the company has yet to commit to reach net zero emissions. In addition, it continues to mine coal for domestic and international use.³⁹¹

BASF

BASF has pledged to reduce its Scope 1 and Scope 2 CO₂ emissions by 25 percent by 2030 from 2018 levels and is committed to reach net-zero emissions.³⁹²

BASF’s Supplier Code of Conduct requires suppliers to, “prohibit unlawful eviction and unlawful taking of land, forests and waters,” “minimize your negative impact on biodiversity, climate change and water scarcity to protect the livelihood of people,” and “protect internationally proclaimed human rights in your operations and for your

³⁸⁹ ANTAM, “2022 Sustainability Report,” 2022, <https://www.antam.com/uploads/kinerja-sosial---ham.pdf> (accessed January 2, 2024).

³⁹⁰ ANTAM, “ANTAM Supports Decarbonisation by Using Environmentally Friendly Fuel,” November 2, 2022, <https://antam.com/en/news-and-events/article/antam-supports-decarbonisation-by-using-environmentally-friendly-%C2%BDfuel> (accessed January 2, 2024).

³⁹¹ ANTAM, “Coal,” n.d., <https://antam.com/en/products/coal> (accessed January 2, 2024).

³⁹² BASF’s climate pledges seem to counteract its lobbying efforts on climate change. According to the international civil society organization InfluenceMap: “BASF is actively and strategically engaged with climate change policy in Europe, taking negative positions on several key policies such as the EU Emissions Trading System (EU ETS) and the Industrial Emissions Directive (IED). BASF’s generally positive position on the energy transition contradicts that of its majority holding of Wintershall Dea, which advocates for a continued role for fossil fuels, including oil and fossil gas, in the energy mix.”

BASF, “Our climate protection goal,” <https://www.basf.com/global/en/who-we-are/sustainability/we-produce-safely-and-efficiently/energy-and-climate-protection/climate-protection-goal.html> (accessed November 20, 2023); InfluenceMap, “LobbyMap: BASF,” <https://lobbymax.org/company/BASF-9c2526b336864ffb52b43107fe4296b5/EN/projectlink/BASF-In-Climate-Change> (accessed May 24, 2023).

employees.”³⁹³ BASF Group’s Position on Water Protection commits to introduce “sustainable water management at all relevant production sites by 2030,” which includes sustainable water abstraction, maintaining good water quality, preserving conservation areas, and ensuring continuous improvement processes.³⁹⁴

BASF is a processing working group participant in the Initiative for Responsible Mining Assurance (IRMA).³⁹⁵ BASF’s position on mandatory due diligence, which was released in July 2022, states:

BASF is committed to respect internationally recognized human rights and protect the environment in its own operations. We also embrace the responsibility to foster respect for human rights and environment in relationships with our business partners along the value chain.

BASF actively promotes human rights and environmental protection in the supply chain and expects its suppliers to respect their responsibilities and meet their due diligence obligations.

CNGR

CNGR’s due diligence policy outlines its human rights and sustainability commitments, including:

While sourcing from, or operating in high-risk areas, we will not profit from, assist with, or facilitate significant adverse impacts regarding ambient soil, air and water conditions, or source from or be linked to any party with gross violation of local laws and regulations. We will support or take actions to evaluate periodically to minimize the adverse impacts of extraction regarding soil, air and water.

We do not participate in, tolerate, or profit from the exploitation of resources from land where the free, prior and informed consent of local and indigenous peoples has not been obtained, a legal title, lease, concession, or license has been obtained illegally, or national laws have been violated.

³⁹³ BASF, “Supplier Code of Conduct,” January 2023, <https://www.basf.com/us/en/who-we-are/organization/suppliers-and-partners/sustainability-in-procurement/supplier-code-of-conduct.html> (accessed November 20, 2023).

³⁹⁴ BASF, “BASF Group’s Position on Water Protection,” <https://www.basf.com/global/en/who-we-are/sustainability/we-produce-safely-and-efficiently/environmental-protection/water.html> (accessed November 20, 2023).

³⁹⁵ Initiative for Responsible Mining Assurance, “Members/Partners,” n.d., <https://responsiblemining.net/members-partners/> (accessed September 27, 2023).

We do not participate in, tolerate, or profit from extracting or sourcing resources from mining operations where the culture and heritage of local and indigenous peoples have not been respected and protected, or where traditional cultures and heritage of local peoples have been harmed.

If we have proper reasons to believe that such a risk exists, we will immediately work with suppliers and other stakeholders to develop, adopt and implement risk management plans based on where the enterprise's specific position in the supply chain is. [sic] In order to prevent or mitigate the specific risks related to infringement of land rights, leading to significant adverse environmental impact or local cultural heritage damage. If the risk mitigation measures do not work, we will suspend or terminate our cooperation with upstream suppliers.³⁹⁶

Eramet

Eramet has public policies on human rights, environmental responsibility, health, and climate change. Eramet's Supplier Code of Conduct establishes expectations and requirements for its suppliers regarding human rights, environmental impacts, and business ethics. For example, the Code of Conduct states:

Eramet has adopted an Ethics Charter, and a Human Rights Policy, and requires its Suppliers to respect Human rights as recognized by the Universal Declaration of Human Rights, the ILO's Fundamental Conventions and any other applicable local, national and international regulations, as well as the principles details [sic] in its policy...

Eramet requests that its supplier implement actions to improve their energy efficiency and reduce their greenhouse gas emissions and other environmental impacts.³⁹⁷

In its Human Rights Report, Eramet states:

Through its human rights policy, Eramet is committed to respecting and protecting the traditions and cultures of indigenous communities in the countries where the Group operates. Social studies are routinely conducted to gain an understanding of the populations' living conditions in the vicinity of

³⁹⁶ CNGR Advanced Material Co. Ltd., "Due Diligence Policy for a Responsible Global Supply Chain of Mineral," January 1, 2023, <http://www.cngrgf.com.cn/Upload/Template/web/Files/202309/fe92f631-2e90-4a34-aca8-fdc609e374c8.pdf> (accessed September 27, 2023).

³⁹⁷ Eramet, "Supplier Code of Conduct," June 21, 2021, <https://www.eramet.com/en/group/supplier-code-of-conduct/> (accessed January 2, 2024).

the mining concessions and to develop appropriate community engagement plans and community development projects.³⁹⁸

In addition, Eramet has committed to reduce its CO₂ emissions by 40 percent by 2035, compared with 2019 emissions, and reach net zero emissions by 2050.³⁹⁹ In its 2020 Energy and Climate Policy, Eramet pledged to, “contribute, in its main host countries, to the collective momentum in the fight against climate change.”⁴⁰⁰

EVE Energy

EVE Energy’s 2019 Due Diligence Management Policy for Responsible Mineral Supply Chains states,

We do not participate in, tolerate or benefit from activities that do not have the free, prior and informed consent of local and indigenous peoples...We do not participate in, tolerate or benefit from the failure to respect and protect the culture and heritage of local and indigenous peoples, or damaging the traditional culture of local people...

We ensure that we avoid causing significant adverse effects on surrounding soil, air and water conditions, and seriously violating relevant local laws and regulations, including manufacturing, trading, and use that are subject to international bans due to high toxicity to organisms, environmental persistence, or potential irreversible ecological effects of chemicals and hazardous substances.⁴⁰¹

Nickel Industries

Nickel Industries’ 2022 Sustainability Report accounts for the risk that climate change poses to its operations, including at IWIP.⁴⁰² At COP28 in December 2023, Nickel Industries pledged to decrease its carbon intensity by fifty percent by 2035

³⁹⁸ Eramet, “Human Rights Report,” December 2023, <https://www.eramet.com/wp-content/uploads/2023/12/2023-12-Eramet-Human-Rights-report.pdf> (accessed January 2, 2024).

³⁹⁹ Eramet, “Eramet on the road to decarbonization,” n.d., <https://www.eramet.com/en/commitments/decarbonization/> (accessed January 2, 2024).

⁴⁰⁰ Eramet, “Eramet: Validation of the Group’s CO₂ emissions reduction target by the SBTi,” September 9, 2021, https://www.eramet.com/wp-content/uploads/2023/04/PR-Eramet-SBTi-EN_0-2.pdf; Eramet, “Energy & Climate Policy,” October 2020, (accessed October 25, 2023).

⁴⁰¹ EVE Energy, “2019 Due Diligence Management Policy for Responsible Mineral Supply Chains,” <https://www.evebattery.com/Public/Uploads/uploadfile/files/20230921/DueDiligenceMangementPolicyforResponsibleMineralSupplyChains.pdf>, translated from Mandarin to English using Google Translate (accessed September 27, 2023).

⁴⁰² Nickel Industries, “Pathway to a Sustainable Future,” 2022, <https://nickelindustries.com/carbon/wp-content/uploads/2023/05/NIC-2022-Sustainability-Report.pdf> (accessed October 20, 2023).

and reach net zero emissions by 2050.⁴⁰³ Nickel Industries' website includes a statement on human rights: "Nickel Industries commits to respect human rights and the interests of cultures, customs and values of employees and communities affected by our activities."⁴⁰⁴ Nickel Industries shared their Human Rights Policy with Climate Rights International. Within that policy, the company states,

Nickel Mines' operations require land acquisition by purchasing or leasing the lands. In both Australia and Indonesia, lands might already be used by other tenants or are part of indigenous communities. Thus, sometimes using the land for its operations might involve the resettlement of these communities. If we fail to appropriately address resettlement, land status, and traditional land use, issues might cause strong public opposition towards a project and its operators. Hereby, the Company ensures core elements below:

- Safe environment (in relation to environmental protection policy).
- Fair access to resources for local peoples (including roads, soil, water, etc.).⁴⁰⁵

POSCO

POSCO has committed to reaching net-zero emissions by 2050, and it announced in July 2023 that it plans to cut carbon emissions by 37 percent by 2030 from 2021 levels.⁴⁰⁶ According to InfluenceMap, POSCO has engaged in a mix of positive and negative climate lobbying, making the company's internal policies unclear.⁴⁰⁷

POSCO's Supplier Code of Conduct states that, "suppliers must comply with laws and regulations on environmental protection and recognize that environmental protection is one of their basic social responsibilities as an enterprise. Suppliers should identify environmental impacts and minimize adverse effects on the community, environment, and natural resources in their manufacturing operations

⁴⁰³ Antara News, "Nickel Industries discloses emissions goal: net zero by 2050," December 5, 2023, <https://en.antaranews.com/news/300291/nickel-industries-discloses-emissions-goal-net-zero-by-2050> (accessed December 5, 2023).

⁴⁰⁴ Nickel Industries, "Social Responsibility," n.d., <https://nickelindustries.com/sustainability/social-responsibility/> (accessed October 20, 2023).

⁴⁰⁵ Nickel Mines Limited [now Nickel Industries], Human Rights Policy shared with Climate Rights International.

⁴⁰⁶ Argus Media, "South Korea's Posco unveils plan for net zero by 2050," July 3, 2023, <https://www.argusmedia.com/en/news/2465131-south-koreas-posco-unveils-plans-for-net-zero-by-2050> (accessed September 22, 2023).

⁴⁰⁷ "POSCO states top-line support for emissions reductions and global climate action, yet appears to take a more negative stance on specific policy areas including the Korean Emissions Trading System (K-ETS), the EU Carbon Border Adjustment Mechanism (EU CBAM), and the role of fossil fuels in the energy mix." InfluenceMap, "LobbyMap: POSCO," <https://lobbymap.org/company/Posco-5145b6d6876189c01199c8a1ca293453> (accessed May 24, 2023).

while protecting the health and safety of the public at large.”⁴⁰⁸ The Supplier Code of Conduct does not include requirements that suppliers respect the rights of Indigenous Peoples or require FPIC.

⁴⁰⁸ POSCO, “POSCO Supplier Code of Conduct,” https://www.posco.co.kr/docs/eng6/jsp/dn/esg/POSCO_Supplier_Code_of_Conduct_2.0_eng.pdf (accessed November 21, 2023).



Mining near Sagea Lake in Central Halmahera. Credit: Muhammad Fadli for Climate Rights International

Front cover: An aerial view of the Indonesia Weda Bay Industrial Park (IWIP), including captive coal plants and a sea port. Credit: Muhammad Fadli for CRI.