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CHINA local / global

How Indonesia Used Chinese Industrial Investments to Turn Nickel into the New Gold

Angela Tritto

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China Local/Global

China has become a global power, but there is too little debate about *how* this has happened and what it means. Many argue that China exports its developmental model and imposes it on other countries. But Chinese players also extend their influence by working through local actors and institutions while adapting and assimilating local and traditional forms, norms, and practices.

With a generous multiyear grant from the Ford Foundation, Carnegie has launched an innovative body of research on Chinese engagement strategies in seven regions of the world—Africa, Central Asia, Latin America, the Middle East and North Africa, the Pacific, South Asia, and Southeast Asia. Through a mix of research and strategic convening, this project explores these complex dynamics, including the ways Chinese firms are adapting to local labor laws in Latin America, Chinese banks and funds are exploring traditional Islamic financial and credit products in Southeast Asia and the Middle East, and Chinese actors are helping local workers upgrade their skills in Central Asia. These adaptive Chinese strategies that accommodate and work within local realities are mostly ignored by Western policymakers in particular.

Ultimately, the project aims to significantly broaden understanding and debate about China's role in the world and to generate innovative policy ideas. These could enable local players to better channel Chinese energies to support their societies and economies; provide lessons for Western engagement around the world, especially in developing countries; help China's own policy community learn from the diversity of Chinese experience; and potentially reduce frictions.

Evan A. Feigenbaum

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Summary

The Indonesia Morowali Industrial Park (IMIP) in Central Sulawesi is one of the largest Chinese investments in Indonesia, touted by its creators as a perfect model of Sino-Indonesian collaboration. Yet while it indeed symbolizes the strong synergy between Chinese investment and Indonesian President Joko Widodo's developmental plans for his country, the park also encountered several contestations, at the local, national, and even—albeit indirectly—international levels. Chinese players have had to adapt to these rapidly shifting Indonesian cross-currents. The way they have done so says much about the extent to which they have learned how to navigate local realities in today's Indonesia.

The industrial park bears the imprint of a typical export growth-oriented Special Economic Zone from China. Built in a pristine yet resource-rich area in Central Sulawesi, it brought development in the form of new infrastructure like ports, roads, and airports, which connected this once dormant part of the country to other parts of Indonesia and onward to the rest of the world. It also brought new technology, capital, and employment to the country, attracting migrant workers from the whole of Sulawesi to move into this area of the island. Two main factors propelled its development: China's Belt and Road Initiative (BRI), which provided a launchpad for elevating this project to a strategic national level of priority, with all the facilitations this entailed; and the export ban on raw minerals implemented by the Indonesian government, which essentially forced Chinese companies to invest in Indonesia's smelters to keep hold of their sources of nickel.

Yet this industrial transformation did not come without a price—on the environment, and on the livelihoods of the indigenous communities of this place—nor without contestations on labor conditions and the lack of compliance with local laws and customs. These contestations, sometimes harsh, gave rise to strategies by Chinese companies for adaptation to the local context and a series of corporate social responsibility (CSR) efforts that served to mitigate the Chinese firms' impact but also to improve their image.

At the international level, meanwhile, the export ban also raised criticism on Indonesia's breach of free trade rules, with the European Union (EU) pushing a claim against Indonesia at the World Trade Organization (WTO) and other dominant Asian steelmaking players like China and South Korea also raising criticism. Yet the park keeps expanding to accommodate new activities connected to the production of electric vehicle (EV) batteries, which is in turn leading to new shifts and uncertainties in the global nickel supply. Hence, local and international activists as well as observers are raising new concerns about the sustainability—whether economic, environmental, or social—of the renewable energy transition.

Introduction

When China's President Xi Jinping announced the 21st Century Maritime Silk Road (MSR) during a speech at the Indonesian Parliament in Jakarta, this showed the country's strategic importance to his ambitious vision. There are many reasons for this centrality of Indonesia in Chinese thinking. Situated between the Indian and Pacific Oceans, Indonesia sits astride the passage to the Strait of Malacca for commercial and other ships and abuts the southern part of the South China Sea. Its large, young, and growing domestic market as well as its vast and largely untapped natural resources make it an alluring market for Chinese companies to invest.

And Indonesia has welcomed Chinese investments because its infrastructural deficit, the largest in Southeast Asia, is notoriously hindering its growth potential.¹ Connectivity, therefore, is a priority for the country's development agenda, making Indonesia a perfect candidate for China's investments, construction contracts, and other inroads. Most important, while some have questioned its regional leadership role in most recent years,² observers and scholars alike have defined Indonesia as the "natural leader," "first among equals," and "key to the success" of the Association of Southeast Asian Nations (ASEAN), a union that it played a major role in founding as one of the original six members. Indonesia is also a member of the Group of 20 (G20) economies and is widely seen as having the potential to punch above its weight geopolitically beyond Southeast Asia.³

In the past, when China's relations with ASEAN states were not particularly amicable, the problems often revolved around China's relations with Indonesia.⁴ The recent adoption by ASEAN of the Indonesian-drafted Outlook on the Indo-Pacific signals that Widodo hopes to revive and capitalize on Indonesia's leadership role in the region to strengthen regional security.⁵ Hence, Indonesia's support in ASEAN is essential for China's posture and relations in the region; this is probably why President Xi chose this country for his first visit to Southeast Asia and to announce his MSR. Meanwhile, when he was elected in 2014, Widodo's first official trip was to Japan and China to exercise his "economic diplomacy" and secure financial and technical support for his domestic infrastructure and industrial development plans.⁶ One key objective pursued by his predecessor, former president Susilo Bambang Yudhoyono, was to eliminate Indonesia's reliance on the export of raw minerals and to diversify the country's economy by attracting investments to advance industrial development, transforming exports of raw minerals into more value-added exports.

As a result, both Yudhoyono and Widodo saw China's BRI as a platform to negotiate and facilitate investments by Chinese companies in Indonesia to fulfill this domestically driven objective. And in many ways, this Indonesian push has succeeded in intent, with various industrial parks having been set up by Chinese companies in partnership with domestic Indonesian firms.

Yet despite the strong state facilitation from Jakarta, Indonesia's business environment has remained a difficult one for foreign investors, and for Chinese investors in particular. The lack of infrastructure, the cumbersome and ever-changing—even arbitrary—regulations and bureaucracy, have often discouraged companies wishing to invest in Indonesia. The obstacles to and headaches for investment in the country's mineral sector, which once attracted large international conglomerates, are now even more challenging thanks to the government's enhanced control, exerted through regulations such as export bans and a negative investments list. But for Chinese companies especially, an even greater obstacle is the still widespread anti-China sentiment in the country.

For this reason, BRI investments in Indonesia have been met with a complex mix of domestic politics. Widodo has had to carefully balance his opportunistic support for the MSR with the threat such support poses to him politically, such as when he confronted opposition during his 2019 reelection campaign and, more broadly, as he has worked to maintain popular support from a China-skeptical body politic. Widodo's focus on local content requirements and technology transfer from Chinese firms to Indonesians was in a sense helped along by the constant local media spotlight trained on large Chinese investments, which at times led to the proliferation of misinformation. One such case is that of IMIP, China's largest investment in the country's mineral sector, which saw complaints—often inflated, false, or misleading—over illegal workers and working conditions. But amid a spate of misinformation about the park, there were real concerns too, around respect for local customs and traditions, the bypassing of Indonesian environmental regulations, and potential environmental harms posed by the park's activities.

These contestations in the media and public scrutiny led to a series of responses both by the Chinese companies investing in the park and by the local Indonesian government. The park, as a result of this local pressure, invested in better training, improved its communication strategy, and enhanced its CSR. It also opened up a dialogue with local authorities to improve regulations over imported foreign labor.

Meanwhile, Indonesian government administrations, both local and national, have sought to better control the proliferation of misinformation and disinformation, while simplifying the investment process for foreign companies in Indonesia, including but not limited to Chinese firms. The district of Morowali has also enhanced public expenditure on infrastructure and education. Yet, as the park keeps expanding, new issues have arisen, from disputes over the breach of free trade agreements to long-term sustainability goals and international climate change commitments that will not be met because of Indonesia's heavy reliance on coal for such industrial developments.

The next section provides background on how Indonesia actively pursued Chinese foreign direct investment (FDI) to restructure its mineral sector, showing data on key foreign investors in the industry and examining what led to the 2014 Indonesian export ban on unprocessed minerals. The export ban was one of the key factors that, together with China's BRI, propelled the development of IMIP, which the succeeding section explores at length. The following sections of the paper unpack how the park developed and adapted to the local Indonesian context. A concluding section discusses the implications of the park's ongoing expansion by examining the broader dynamics of the nickel industry and its rising importance for EV battery manufacturing and the renewable energy transition.

Indonesia and Its Mineral Sector Transformations

Indonesia's mineral resources sector has played a crucial role in the country's national economy, and its large fuel and non-fuel mineral resources have attracted foreign companies' interest since the Dutch colonial era. Prior to the fall of former president Suharto and the start of the Reformasi era in 1998, Indonesia had a legal architecture that encouraged foreign investments, and by the end of the twentieth century, the country was among the world's major tin, copper, and nickel producers.⁷ After 1998, strong decentralization efforts that sought to curb separatist tendencies in resource-rich regions led to major reforms in the industry. The resulting new, decentralized architecture gave full autonomy at the level of the regency—an Indonesian administrative division directly under a province—to implement local policies, but not at the provincial level, reducing the authority of the central government in such matters.

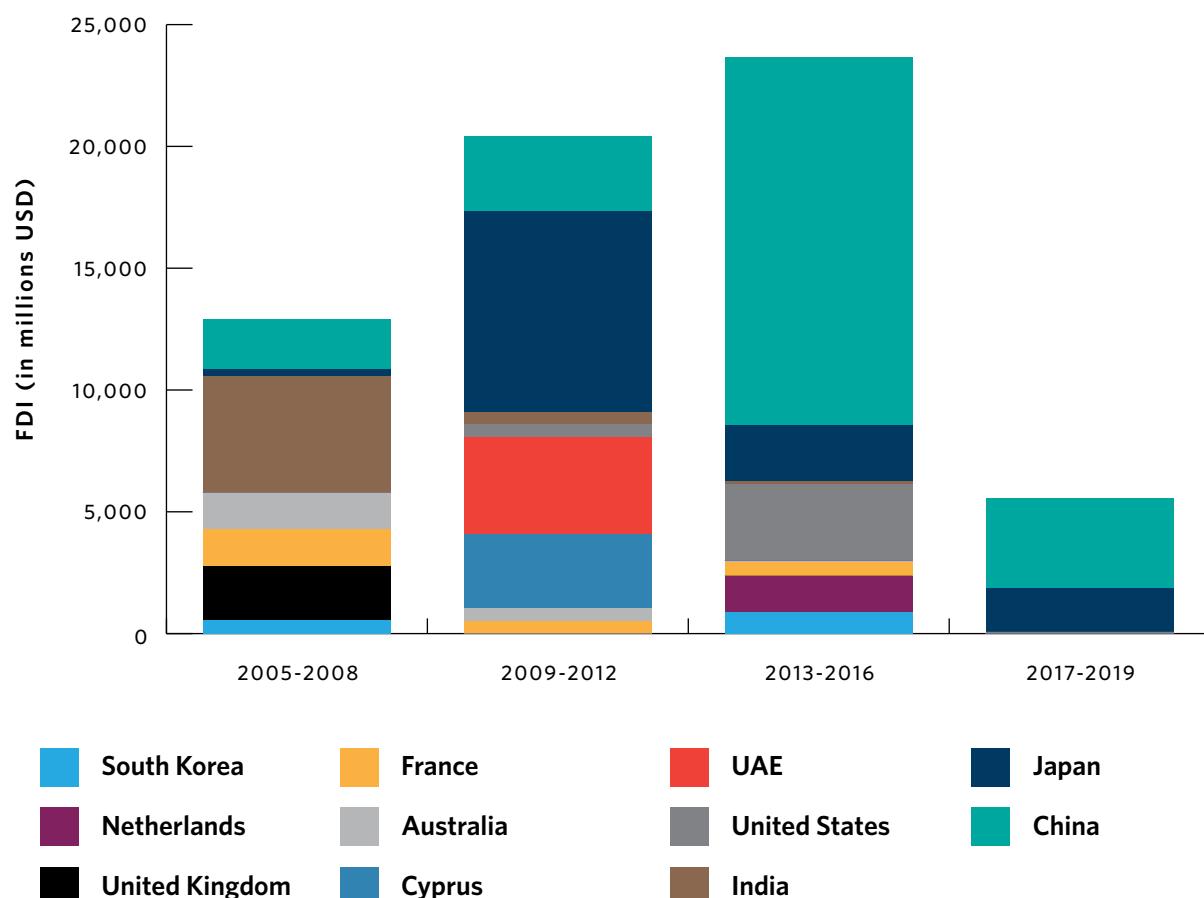
These reforms, however, were not enacted until almost a decade later because of the difficulty in handling the many competing interests in the sector. These included the interests of different levels of government entities, the private sector, and civil society. The Indonesian mining law introduced in April 2009 compounded these challenges and marked the beginning of a phase of renewed state intervention and resource nationalism in the sector. The law introduced a new licensing system and instructed companies to employ domestic mining services over foreign ones, providing more opportunities for Indonesian economic elites to own mining concessions.

At this time of commodity boom, the government of then president Yudhoyono and key Indonesian industry stakeholders began to believe that Indonesia's resources were being depleted at a very fast pace but without bringing much benefit to the country. As a result, they aimed to shift Indonesia's mineral production away from being based purely on extraction activities by drawing investments into metal manufacturing.⁸ This goal was mentioned in the new mining law itself, so a year later, a

new government regulation—Government Regulation Number 23 (2010)—made it mandatory for mining companies to process and purify the minerals they had mined as a value-add for the products *before* exporting them.

Companies holding contracts of work or mining licenses were given a five-year grace period to prepare for investing in processing facilities.⁹ This major policy shift, along with a series of conflicting policies that came afterwards,¹⁰ generated large uncertainties in the market and led to major changes in foreign investors' activities in the Indonesian market. Figure 1 below shows how the sources of FDI in Indonesia's mineral sector have transformed as a result over the past ten years.

Figure 1. FDI in Indonesia's Mineral Sector



SOURCES: Author's elaboration on information from fDi Markets (database), Financial Times fDI Intelligence, accessed April 11, 2023, <https://tinyurl.com/2npxyumu>.

At the beginning of Yudhoyono's presidential term, which started in 2004, investments in Indonesia's mineral sector came mostly from Australia, India, the United Kingdom, and other European countries. Investments from Indian companies were mostly in the manufacture of iron and stainless steel products. Australian investments were instead more diversified, comprising the extraction of gold and silver and, to a lesser extent, steel manufacturing. Investments from Europe were entirely in the extraction industry, concentrated on nickel, copper, and gold. Then, between 2009 and 2012, investments coming from Japan and the United Arab Emirates rose to become the largest in the Indonesian mineral sector, primarily in steel and alumina production.

Over these years, Chinese companies, too, invested in both extraction and processing of Indonesian metals, but it was not until after 2013 that Chinese firms became the most prominent source of investments in this sector. Among Chinese investments, ventures by the Tsingshan Group, the world's leading stainless steel producer, are the largest. One of the first investments by the group was in a stainless steel plant on Obi Island in North Maluku. However, this \$500 million investment to build a smelting plant in partnership with an Indonesian state-owned company fell through after only a year because of declining nickel pig iron (NPI) prices and outputs.¹¹ Similarly, other investments—including IMIP, in collaboration with Bintang Delapan, a large Indonesian mining company—were initiated between 2007 and 2009, but did not materialize until much later.

What propelled these Chinese investments to finally materialize years later was the implementation of Indonesia's export ban on unprocessed minerals in 2014, just one year after Xi's launch of the MSR.¹² When Widodo took office in 2014, he supported the ban, viewing it as supportive of his nationalistic economic agenda to attract downstream investments and increase jobs and value-added industrial production in Indonesia. In the background of this ban was Indonesia's experience of high gross domestic product (GDP) growth during the China-driven commodity boom between 2005 and 2011—growth that did much for Indonesia's export statistics but did not do much to alleviate poverty, a key focus of Indonesia's developmental agenda. As a result, the export ban strategy, aimed at assuring value-added production within Indonesia itself, gained currency in those years.¹³

The Indonesia Morowali Industrial Park: How Indonesia Courted Chinese Investments to Set Itself on the Electric Vehicle Global Value Chains

IMIP was certainly facilitated by the BRI, but more broadly speaking, it came about as a result of Indonesian agency and lobbying. During its implementation, the project was heavily shaped and conditioned by various political and social contestations within Indonesia arising from its extensive and fast development.

In 2014, the Tsingshan Group, which currently has the largest production of ferronickel and stainless steel products in the world, became the most prominent Chinese investor in Indonesia's mineral processing sector. This group's investments concentrated in IMIP, which is located in Bahodopi, a district in the Morowali regency of Central Sulawesi—an area rich in nickel resources. In October 2009, the Tsingshan Group's subsidiary, Shanghai Decent, set up a joint-venture company, PT Sulawesi Mining Investment, to invest in smelters and was granted extraction rights to 47,040 hectares of laterite nickel ore mining land in Morowali.¹⁴ Yet no concrete plan materialized until October 2013, when, on the occasion of Xi's speech to launch China's MSR, Xi and Yudhoyono witnessed the signing of a memorandum of understanding to develop the park. At the same time, a new joint venture was established between the Shanghai Decent Investment Group and the Bintang Delapan Group to build IMIP. The group brought in a cluster of companies to invest in the park and established new companies as the project developed (see table 1).

Table 1. Companies Invested in IMIP

Name of company	Year	Activity
Shanghai Decent Investment Group	2014	Investment company
PT Landseadoor International Shipping	2014	Shipping, bulk cargo transportation
PT Indonesia Guang Ching Nickel and Stainless Steel Industry	2014	Steel and stainless steel production
PT Indonesia Tsingshan Stainless Steel	2014	Steel and stainless steel production
PT Indonesia Ruipu Nickel and Chrome Alloy	2016	Import of nickel and other minerals
PT Ekasa Yad Resources	2016	Subsidiary of Tsingshan; stainless steel production
PT Tsingshan Steel Indonesia	2016	Stainless steel production
PT Hengjia Nickel Industry Indonesia	2018	Production of ferronickel
PT Renjia Nickel Industry Indonesia	2018	Production of ferronickel
PT Huayue Nichrome Indonesia	2019	Production of nickel chromium hydroxide
PT Qing Mei Bang New Energy Materials Indonesia	2019	Production of laterite nickel ore
Indonesia Morowali Power Co., Ltd.	2019	Energy production

SOURCES: Pius Ginting and Ellen Moore, "Indonesia Morowali Industrial Park (IMIP)," People's Map of Global China, November 22, 2021, <https://thepeoplesmap.net/project/indonesia-morowali-industrial-park-imip/>; author's own observations of the company's facilities and materials.

Many other companies from Australia, China, Indonesia, Japan, South Korea, and elsewhere are involved in the park, which received plenty of financial support from China's BRI. The first financing came from the China-ASEAN Investment Cooperation Fund, a quasi-sovereign wealth fund linked to the Export-Import Bank of China. The project also received a \$1.22 billion loan from China Development Bank, China's other state policy bank, which is currently the largest lender to the park. The Tsingshan Holding Group is the largest investor in IMIP and holds significant shares in all of its activities, from infrastructure and mines to the various processes that take place within the develop-

ment. The park extends over 2,000 hectares (20 square kilometers) of land, and before its construction the area was barren. The park brought investments in all the necessary supporting infrastructure, including energy, so that it now has 1.9 gigawatts of power (with plans to expand to 2.9 gigawatts), a port, and transport infrastructure like roads.

The coal-fired power plants at IMIP were financed by the China Development Bank, Export-Import Bank of China, Bank of China, and Industrial and Commercial Bank of China, the country's largest state-owned banks.¹⁵ IMIP also has housing compounds (exclusively for Chinese workers), a hotel for executive visitors, an airport with a 1,800-meter runway, and its own dedicated telecommunications network that includes underwater cables linking to China's own satellites. Its production facilities include lime, coke, and acid plants; eleven smelters producing stainless steel, NPI, and ferrochrome; and two high pressure acid leach (HPAL) facilities to extract nickel and cobalt from laterite ores. These two facilities are owned and operated by PT QMB New Energy Materials (a joint venture of several large recycling companies from China), IMIP, Japanese company Hanwa, and PT Huayue Nickel and Cobalt. Their investments jointly make up over \$2 billion out of the total \$8 billion invested in the park thus far.

And these investments represent yet another way to satisfy Indonesia's request to diversify the use of its nickel: through the HPAL process, Indonesia now produces battery-grade nickel and other materials that feed the growing EV markets. Currently, the production facilities in Indonesia—scattered across Morowali, Obi Island (North Maluku), and Weda Bay (Halmahera)—supply nine factories accounting for over 40 percent of the global production of EVs, thereby putting Indonesia at the center of the new global supply chains supporting the renewable energy transition.¹⁶

Adaptation: Shaping a Chinese-Invested Industrial Park into an Indonesian One

As of 2020, IMIP employed roughly 43,000 workers and indirectly supported at least another 30,000 small service providers and local businesses (mostly suppliers and consumption-related industries) to serve the park and its increasing number of employees. Only around 5,000 of these people hail from China, so the Indonesian labor cohort (both direct and indirect) is substantial.¹⁷

IMIP's Chinese employees often take on supervisory, technical, or managerial roles, while Indonesian employees make up the main workforce. According to a former senior executive, the park often organizes games to facilitate intercultural sharing and friendship. He claimed that there were already many marriages between Chinese and Indonesian workers, arguing that this was a positive sign of good intercultural relationships at the workplace.¹⁸ Yet these statements stand in stark contrast to

reports outlining the cultural conflicts between Chinese and Indonesian workers and the issues surrounding the management of the growing local workforce in the park.

Cultural frictions mostly relate to the segregation of Chinese workers in the park, to the preferential treatments granted to them, and to questions around respect for local religious and cultural norms. In fact, online reports and interviews during the author's field research in Indonesia highlighted that Chinese workers live inside the park and receive exclusive treatment such as a dedicated lodging and canteen and a salary scale that some claim may be three times higher than that of Indonesians.¹⁹ Chinese workers are also prohibited from roaming outside the park, and this may have contributed to the conflictual relationship that has developed between the two groups of workers in the park.²⁰ This separation, compounded by language barriers and by the long work shifts (which changed in 2019 from eight to twelve hours in length), intensified the deep-rooted anti-Chinese sentiment that has existed among many in Indonesia since colonial times, when Chinese workers enjoyed preferential treatment over Indonesians from the country's Dutch colonizers.²¹

Initially, IMIP's Indonesian employees complained about the lack of breaks (especially for prayer times), the lack of holidays, and their difficulty in adapting to work with Chinese counterparts. They mentioned hygiene issues, too, as well as the difficulty of operating machines and having to communicate via gestures because of language barriers between managers and staff.²² Chinese workers, it was claimed, patronized Indonesians by shouting at them, or filmed them playing games during their break times to claim that they "did not work." And Indonesians responded in kind, leading to several altercations and conflicts.²³

However, the park management often intervened in such disputes and introduced several measures to help alleviate such frictions. Prayer time breaks were formally established, and three mosques were built inside the park in the canteen, jetty area, and IMIP center. The park hired spokespersons and interpreters—mostly local people of Chinese descent from Batam, Sumatra, and the city of Surabaya in East Java. IMIP also provided Mandarin language training for employees inside the factory. These concessions and compromises were granted to local employees to ameliorate their working conditions.

Labor issues surrounding the park relate to dynamics affecting illegal Chinese workers, the need to raise the safety standards inside the park, the presence of illicit employment brokers overcharging people who wished to be employed by the park, and other dynamics related to the fast and large increase of population in the area. The issue of illegal Chinese workers in the park, being very sensitive, soon caught national media attention and so was addressed at the highest level of government. Widodo, the Coordinating Ministry of Maritime Affairs, the Ministry of Industry, and the BKPM Indonesia Investment Coordination Board all intervened to mediate, arguing that hiring foreign

labor was a temporary and necessary condition to ensure technology transfer.²⁴ As explained by the leader of a Chinese business association during an interview with the author, the rumors of two hundred thousand illegal Chinese workers flocking to Indonesia were impossible to believe, as the increasing cost of Chinese labor—about four to five times the cost of hiring locally from among Indonesians—made it unaffordable and unreasonable for companies to bring their own employees over. Moreover, strict labor laws in Indonesia cap the total amount of foreign labor at twenty thousand jobs per year, making it extremely difficult to justify bringing low-skilled workers from China.

Police have arrested a few illegal Chinese workers in the area around IMIP. But an interviewee told the author that this issue was the result of long delays in processing visa applications for foreign workers, as well as the high cost of such applications, which pushed Chinese companies and workers to use the normal visa-on-arrival procedure to enter the country.²⁵ These issues then became part of top-level negotiations and ultimately resulted in Indonesia's effort to loosen up certain visa requirement procedures under its Omnibus Law; this, in turn, drew several complaints from the wider public in Indonesia.

Another local concern about the park involved safety standards, especially in its beginning phase, when a helicopter crash and fatal accident recorded on camera went viral with the Indonesian public on YouTube. Indonesia was already notorious for work accidents and safety flaws, but workers lamented that standards within the new Chinese-invested park and the equipment provided were insufficient even by Indonesian standards. Some workers claimed a complete set of safety gear was distributed once a year to all employees, but this was often insufficient, and most people had to buy their own. The leader of a workers' rights association told the author in an interview that the number of recorded fatal and nonfatal injuries at work had tripled since the establishment of the park, and that a visit to inspect working conditions revealed “barbaric” work shifts and a suboptimal work environment.²⁶ This, too, became an area of remedial action for the park’s management, who introduced more breaks despite extending work shifts to twelve hours instead of eight, and began providing two full days off per week. The park also introduced a three-month training requirement for every employee, with a one-week induction once workers officially began their jobs in the park.

While several of the public relations issues IMIP faced were easily brought under control by the park management, the development of the area surrounding the industrial park led to other types of social and environmental consequences that have required an enhancement of local Indonesian governance. Soon, news articles began to document illegal practices—for example, those related to employment brokers overcharging job seekers increasing amounts of money in return for getting them hired by

the park.²⁷ These practices were also mentioned in the author's interviews with factory workers on site. And since the park prioritized the recruitment of Morowali natives, illicit practices connected to the release of new IDs, such as vote-buying, began to proliferate.²⁸

The large, uncontrolled construction outside the park also led to major changes to the area surrounding it, aimed at accommodating the increasingly uncontrolled sprawl of residences. Several employees, local nongovernmental organizations (NGOs), and the leader of a labor association in Indonesia lamented to the author the declining environmental conditions in the area surrounding the park. These included severe dust, increased floods and landslides, and a decline in the quality of water in the area due to the disposal of waste directly into it and to port activity. This, in turn, had a negative impact on the health and livelihoods of people living in the vicinity of the park, since fish-catch declined and so too did the amount of farmland because of both contamination and land appropriation by mining activities and infrastructure development.²⁹

Despite the above, a survey conducted by Indonesian scholars in the area revealed that most residents found the availability of health services in the villages surrounding the park more than satisfying.³⁰ This is also thanks to the CSR funds that the company has established since its beginnings in 2012, through which the company disbursed roughly 7.5 billion rupiah per year. The park also operated a community development program that had two main objectives: the electrification of the surrounding villages, which now have twenty-four-hour subsidized electricity and village development, and the distribution of 450–500 million rupiah to twelve villages to support local business development and to build and maintain schools, hospitals, mosques, and other communal spaces as well as boarding facilities for workers.³¹ In 2017, the CSR funds were raised to 30 billion rupiah in order to build a large electricity network that connects Bahodopi to coastal Morowali and Central Bungku, the capital of Morowali Regency, channeling part of the electricity produced by the coal power plants in the park. Moreover, in 2023, IMIP's two CSR teams—the community development team and the environmental team—launched a five-year plan to rehabilitate the coral reefs in the village of Mbokita in the Menui Islands in collaboration with Sombori Dive Conservation, an environmental consultancy.³²

Yet despite these efforts, the company's activities have been connected to the rent-seeking behavior of local government officials, according to one Indonesian interviewee, who said that "it is the policy of our government to allow more flexibility for Chinese investments; they can bypass many regulations," and in turn, Chinese investors "would rather disburse their money by bribing the local government than use it for developing good mining practices and health and safety standards."³³ In

such a context, the oversight of civil society organizations, which maintain good cooperation with the local authorities, is critical; they can document these adverse conditions while drawing attention to the need to improve local governance, providing a bridge between local authorities and the affected communities. The numerous reports by these organizations have led to several instances of raised awareness in the local government, which initiated ombudsman investigations to look into claims by villagers. There have also been instances, however, in which villagers have made unfeasible demands because of their unawareness of corporate regulations, such as that CSR funds be disbursed to them as cash. In this area, through its Indonesian partner, IMIP has hired competent employees to tackle such issues through engagement and education and by establishing collaborations with the local government and local NGOs.

Macro Effects: IMIP, Resource Nationalism, and Indonesia's Renewable Energy Transition

Part of the reason the environmental and social impacts of Chinese investment have become so prominent in Indonesia is also connected to the macro dynamics of IMIP and other industrial parks. Indonesia's decision to adopt an export ban in 2014 meant that, in just a few years, IMIP and other large Chinese-invested industrial parks became the largest buyers of Indonesia's nickel products. Since domestic mining companies could no longer sell to overseas buyers, these large industrial parks created an oligopsony—a market situation in which each one of a few buyers exerts a disproportionate influence on the market due to the distortion generated by the export ban.³⁴ This allowed the Chinese players to monopolize the demand for Indonesian nickel, and meant they could pressure the country's domestic miners to sell at prices below the market average. This then led the Indonesian companies to cut corners on environmental and safety practices to make up for their profit loss.³⁵ Some of these companies complained against the ban, which was partially relaxed in 2017, but the regulation itself remained in place and was reinstated in 2019 to further Indonesia's developmental strategy aimed at increasing value-added production.³⁶ The result is that because it has access to extremely cheap nickel, coal, and labor, and because it has achieved extremely highly integrated production and processing of NPI, Tsingshan's stainless steel production is extremely competitive. Tsingshan's competitiveness and Jakarta's export ban have drawn adverse responses regionally and globally.³⁷ As explained by the principal analyst of Wood Mackenzie, the first effect was on the Chinese market itself. Tsingshan's Morowali plant started production in mid-2017, and, at that time, as other interviewees also mentioned to the author, the output was primarily shipped to China.

Table 2. Tsingshan Group's Stainless Steel Capacity (in millions of tons)

Sector	Location	Smelting	Slab	Billet	HR AP flats	HR longs	CR
Guangqing Metal Tech	Guangdong	2	1.7	0.5	2*	-	-
Zhejiang Ruipu Tech	Zhejiang	-	-	-	-	0.3	-
Zhejiang Tsinghsn Iron and Steel	Zhejiang	0.4	-	0.4	-	-	-
Fujian Dingxin Industry	Fujian	0.85	0.85	-	1	-	-
Fujian Dingxin Nickel Industry	Fujian	3	3	0.8	-	0.8	-
Fujian Dingxin Tech	Fujian	-	-	-	3	-	0.3
Tsingtuo Special Steel	Fujian	2*	2	-	-	-	-
Tsingtuo Shangke Stainless	Fujian	-	-	-	-	-	0.3*
Indonesia Guangqing Nickel and Stainless	Indonesia	2	2	-	3	-	0.7*
Total		10.25	9.55	1.7	9	1.1	1.3

*Planned future capacity

SOURCE: Panos Kotseras, "The World's Largest Stainless Steel Producer Just Got Bigger," Cru Group, September 6, 2017, <https://www.crugroup.com/knowledge-and-insights/insights/the-world-s-largest-stainless-steel-producer-just-got-bigger/>.

But as the plant grew exponentially (see table 2), the Chinese market was not able to absorb the huge production. Tisco, one of the main competitors of Tsingshan, began to lobby the government to take action. Threatened with potential antidumping duties, Tsingshan then cut its production within China and expanded its customer base in Southeast Asia and beyond.³⁸ Yet this did not prevent the Chinese government from introducing antidumping tariffs against Indonesia, South Korea, and Europe. Similarly, on November 22, 2019, the EU initiated a World Trade Organization dispute against Indonesia, which the United States joined less than a month later. The concerning matters in the complaint included: (1) Indonesia's nickel export restrictions and ban; (2) the country's domestic processing requirements for nickel, iron ore, chromium, and coal; (3) domestic marketing obligations for nickel and coal products; (4) export licensing requirements for nickel; and (5) a prohibited subsidy scheme.³⁹

Indonesia has also faced several disputes related to investment cases by foreign mining companies. As early as July 2014, just a few months after the export ban's implementation and Indonesia's decision not to renew its bilateral investment treaty (BIT) with the Netherlands, Dutch company Newmont Mining Corporation brought a case against Indonesia using the Indonesia-Netherlands BIT at the International Centre for Settlement of Investment Disputes. The company claimed that the Indone-

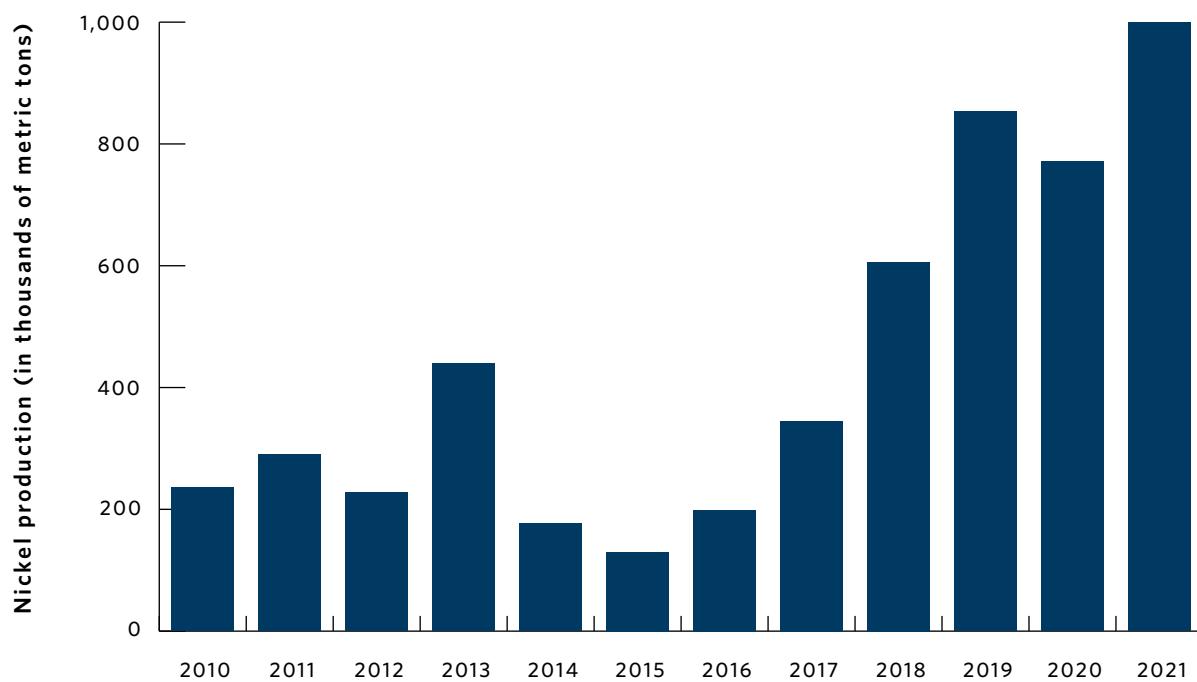
sian export ban had violated clauses established by the BIT, which provides far-reaching protection to Dutch investors in Indonesia through its investor-state dispute settlement mechanism.⁴⁰ A month later, after it obtained a special exemption from the Indonesian government to continue its mining activities, Newmont withdrew its case. Two other companies, Churchill Mining and Planet Mining, also sued the Indonesian government over the revocation of their mining permits in Borneo based on Indonesia's BITs with the United Kingdom and Australia respectively, but in their cases the permits were annulled because of the presence of allegedly fraudulent documents related to their operational licenses.⁴¹

Still, even though measures such as the export ban will make Indonesia's economy less enticing as an investment destination, and even though the government is likely to lose its international dispute against the EU at the WTO, Widodo seems set on expanding such measures to other key minerals. During one interview, he claimed it would be "fine" if Indonesia lost the dispute, as the industry is already built and the country's export revenues from nickel have increased in worth from around \$1 billion just seven years ago to \$20.9 billion in 2021.⁴² New minerals to be banned from export in another wave of policy decisions by Jakarta may include bauxite, tin, gold,⁴³ and even processed nickel products like NPI and ferronickel, as the country now tries to direct all of its nickel to EV battery manufacturing.

But while these measures are triggering international pushback, some economies, including Taiwan, are choosing a different tack—moving instead to welcome the new production by and in Indonesia while discontinuing their own. Moreover, such investments have generated positive effects for Indonesia's economy. According to a former senior executive of Tsingshan, IMIP "contributed to both local and national development." He claimed that "local government revenue increased by 100 times" as a result of the park. He also mentioned the increase of skilled labor and the passing of workmanship across family generations as a positive effect that contributed to the establishment of a local working class.⁴⁴ IMIP received various incentives from the Indonesian government and from being identified as a "national strategic project."⁴⁵ These incentives included the facilitation of licenses and tax reductions, but the park still managed to increase the national government's tax revenues by paying export duties.

Yet while the smelter parks have increased Indonesia's nickel production, now the world's largest, the country's nickel reserves, which are also among the world's largest, are quickly depleting because of its skyrocketing production increase (see figures 2 and 3).

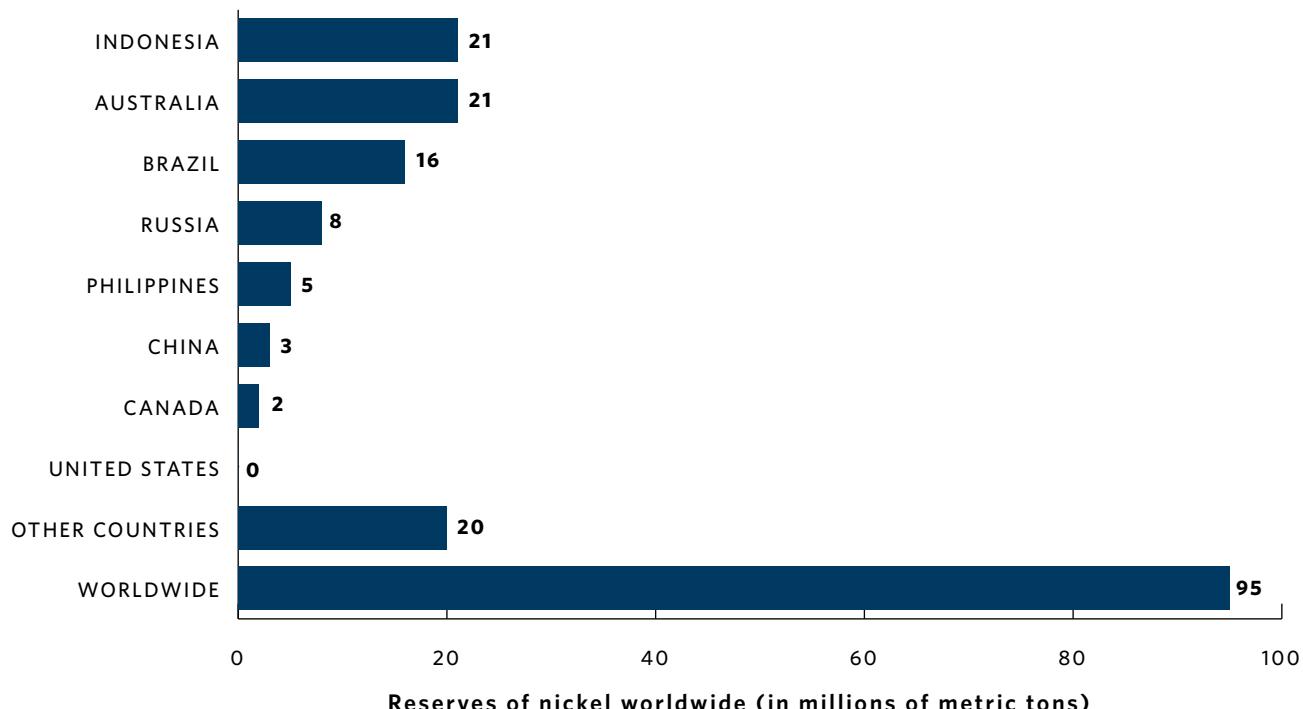
Figure 2. Indonesia's Nickel Mine Production 2010-2021



*Note: Value for 2021 is estimated.

SOURCE: "Mineral Commodity Summaries 2022," U.S. Geological Survey, January 31, 2022, <https://doi.org/10.3133/mcs2022>.

Figure 3. Nickel Reserves Worldwide by Country, 2021



SOURCE: "Mineral Commodity Summaries 2022," U.S. Geological Survey, January 31, 2022, <https://doi.org/10.3133/mcs2022>.

Cognizant of the rapidly decreasing reserves, the Indonesian government is trying to increase the value of industrial production of nickel—and to do so, it has sought investments in technologies to more efficiently extract these minerals from the soil. One such example is the HPAL process, which would allow Indonesian miners to advance the extraction of such ores to produce battery-grade nickel. But one of the main concerns in using such technology is managing the disposal of toxic production waste. Deep-sea tailings disposal (DSTD) is one of the most common means of disposal, but like its alternatives—building tail dams or disposal on land—it has many adverse impacts on the environment and surrounding communities.

This is where a Chinese player has stepped in. One plan to use DSTD technology was presented in January 2020 by the main company in IMIP, PT Hua Pioneer, but canceled in October 2020 because of the long wait and the rising social pressure caused by fears for the local environment and fishing communities.⁴⁶ Eventually, the Chinese company responded to social pressures by shifting its focus instead to land-based disposal. Most plants, including the one in Morowali, seem to have chosen land-based disposal, but one plant in neighboring Papua New Guinea uses DSTD.⁴⁷ Currently, Indonesia and Papua New Guinea are home to one and three respectively of the sixteen mines in the world that practice DSTD, but the two countries account for 91 percent of the estimated 227 million tons of tailings that have thus far been dumped into the ocean. This is even more concerning given that Indonesia and Papua New Guinea are centrally located within the Coral Triangle area.⁴⁸

Because of these pernicious environmental impacts, the Indonesian government has had little success even amid a slew of incentives, including import tariff reductions and lower luxury taxes for buyers, in attracting more foreign investors to Indonesian electric car manufacturing processes.⁴⁹ One example is the case of Tesla, which after many years of being wooed to invest in the country finally met with Indonesian government officials at the end of 2020, but could not be convinced to invest, likely because of the irreconcilability of its branding as a “clean” company with the country’s mining situation, which it likely judged might pose a risk to the company’s image.⁵⁰ Yet while Tesla decided to invest in New Caledonia instead, all the world’s other top EV producers are Chinese, including BYD and BAIC, and they could potentially benefit from such investments. Currently, it seems likely that five of the six HPAL facilities commissioned in Indonesia have become operational, and as a result, production of materials such as nickel matte and mixed hydroxide precipitate (MHP) that can be converted into nickel sulphate for battery manufacturing is skyrocketing.⁵¹

All of the HPAL facilities in Indonesia are currently coal-fired, while overseas plants are, by contrast, starting to integrate technologies to make the process more sustainable. One such example is Australia’s Sunrise project, developed by Clean TeQ, an Australian company that is striving to employ solar power instead of coal, recover steam and heat, and generate 60 percent of the pressure acid leach from its internal acid plant.⁵²

As a result of such high environmental and social costs, public criticism and mobilizations are mounting. In April 2021, the Indonesian NGO Action for Ecology and People's Emancipation started a petition on Change.org to pressure the HPAL industry to follow best global standards, urging the Indonesian government and other stakeholders to stop issuing tailings disposal permits for DSTD, introduce requirements for the companies to use renewable energy sources, and improve the welfare of workers at Morowali and Obi Island, where the nickel mining and processing is concentrated. The Indonesian government had already decided to halt the issuing of permits for DSTD in February 2021, but some plants, like the one on Obi Island, were still waiting for a final decision on their requests.⁵³ Yet in 2022, both the Halita Group on Obi Island and PT Hua Pioneer in Morowali backed down from their DSTD plans, following strong opposition by local communities and NGOs.⁵⁴ The first to step down was PT Hua Pioneer, which earned much praise for its decision by Indonesian NGOs. On the other hand, protests by local villagers and environmental groups against the Halita Group, owned by a Chinese Indonesian businessman, and media exposure of the dire environmental impacts of the company's activities in the Maluku Islands eventually prompted the company to withdraw its plans and come out with an equally unconvincing proposal to clear forests to dump the tailings.

Meanwhile, as this process is entirely driven by Chinese investments, large shocks are expected to shake the global industry. China's nickel imports from Indonesia are shifting fast to reflect policy changes and new ambitions. As a result, imports of nickel matte have gone from zero in 2021 to 74,000 tons in the first eight months of 2022, while imports of MHP went from 15,000 to 251,000 tons over the same period in 2021. This material is coming from new HPAL plants in Indonesia, such as the one operated by PT Huayue, which started shipping its first batches to the Chinese port of Ningbo in February 2022. At the same time, imports of NPI and ferronickel reached 583,000 tons in August 2022. As a result of this shift, Chinese demand for Class I nickel—the favored form for use in EV battery manufacturing and the one traded in global markets such as the London Metal Exchange and the Shanghai Futures Exchange—has fallen by 33 percent. Global supply of such nickel is also likely to fall because it mainly comes from Russia, whose supplies have been curtailed amid the invasion of Ukraine. Hence, the global market is experiencing high volatility due to the dwindling supply of Class I nickel and the fact that the industry is now shifting toward semi-manufactured products because of Indonesia's large production, which is not traded by global metal markets and therefore is now causing considerable market distortion in the nickel industry.⁵⁵

Lessons Learned and Chinese Adaptations

In the case of the Indonesia Morowali Industrial Park in Central Sulawesi, local developmental interest has driven Chinese investments. China's BRI is often viewed as being pushed from Beijing; yet in this case, it was the Indonesians and their desire to become a bigger player in global nickel markets that drove the action, with Indonesia's government and corporate interests seeing an opportunity to fulfil developmental goals and pursuing Jakarta's industrial policy objectives.

In particular, Yudhoyono, who foresaw that the global commodity boom was about to end, started to develop a strategy to move away from the export of raw minerals and bring in manufacturing investments to turn such minerals into value-added products. This was essentially because the global commodity boom did increase Indonesia's GDP, but according to many experts in the country, these economic benefits did not reach the broader population and did not translate into poverty alleviation. For that reason, while the Indonesian government drove China's interest in the country as a main source of capital and technology to realize its ambitious restructuring of mineral production, that involvement with China has come at a cost of political and social controversy.

On the Chinese side, meanwhile, two main factors have pushed companies to invest into Indonesia's mineral sector. The first was Jakarta's 2014 ban on the export of raw minerals—a key tool of Indonesia's strategy to pressure foreign companies to invest; the second was the BRI, which encouraged those companies to do so, partly in response to the needs of governments such as Indonesia's. In 2014, Widodo enacted the controversial export ban on unprocessed minerals for which all companies operating inside Indonesia were given a grace period *only* if they invested in processing activities. Together with the Philippines, Indonesia was China's main source of raw nickel, so many Chinese companies in the country worked to bring in investments into downstream activities like smelting and established large industrial parks in order to maintain their access to nickel resources in the country. Some of these parks were, of course, facilitated by the BRI, since they created a platform for bilateral cooperation between China and Indonesia.

IMIP is one example of this kind of project. It was established through a memorandum of understanding signed after Xi's announcement of the MSR in an address to the Indonesian parliament. This project then received financial support from the China-ASEAN Investment Cooperation Fund (one of the main financial vehicles to support the BRI), the Export-Import Bank of China, and HSBC China. IMIP was designated as a national strategic project by Indonesia and received much facilitation for licensing in addition to ample tax incentives. This park is now one of the largest centers of nickel production in Southeast Asia, if not the largest. It employs 43,000 workers and contributes greatly to the regional economy of Sulawesi. This and other Chinese-invested smelter

parks have made Indonesia, with some of the world's largest nickel reserves, into the country that boasts the largest production of nickel and nickel-related products, such as NPI, stainless steel, and soon EV batteries.

After the export ban, investing in Indonesia was, quite simply, the only way for Chinese companies to maintain access to nickel. In fact, nickel prices became even cheaper within Indonesia because local miners could no longer export but only sell their products domestically. Hence, these large Chinese industrial parks soon became the largest domestic buyers of such resources and could drive the price down because of their influence. As a result, industrial parks like IMIP benefit from having access to both cheap nickel and cheap coal to run the large coal power plants that are needed to fuel smelting activities. They also benefit from the highly integrated activities in the park, which allow them to produce NPI. As a result, their semi-finished products are much cheaper than those of competing companies.

But this is generating mixed effects. Some countries are introducing antidumping tariffs against Indonesian products, while other economies, like Taiwan, prefer to buy from Indonesia rather than smelting their own stainless steel. And this represents a crucial opportunity for both Chinese and Indonesian companies to set themselves up at a strategic point of the global value chain restructuring that is taking place because of the transition to EVs. For Chinese companies, this means access to cheap resources and labor in Indonesia, with much less strict environmental regulations and oversight than what is in place domestically in China. For Indonesia, it means an opportunity to position the country as a new manufacturing powerhouse that will benefit from the upcoming EV sales growth in the region.

Yet what does this mean for the sustainability of global production and for the future of international relations? There are two important dynamics in play.

The first is the paradox of the renewable energy transition, in which developed and developing countries are now starting gradually to shift toward energy production systems and transport systems that include the use of renewable energy. Yet while such systems are much more sustainable and can considerably reduce emissions for the final consumer, the environmental harm is borne entirely by the place that does the mining, and ultimately, therefore, by the communities living there. Hence, the case of Indonesia shows the pitfalls of the renewable energy transition, whereby negative effects are simply shifted onto those developing countries willing to sustain and bear them, with consequent impacts on inequality.

A second dynamic is that countries like Indonesia are challenging traditional Western institutions and values, such as the role of the WTO and the ideology of free trade, in favor of state-centric and nationalistic approaches that are partially becoming more common in the Asia-Pacific region. Many who see this dynamic region as one of the most promising for long-term economic growth need to reckon with the fact that Western liberal values are increasingly being supplanted by these new, state-centric approaches to globalization. China's adaptations to Indonesia's developmental impulses, industrial policies, and localization requirements show this in stark relief.

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