

Indonesia's Nickel Export Ban

An Industrial Policy Case Study

Dr Harry Wardana

Institute for International Trade

Jean Monnet Centre of Excellence in Trade and Environment

Adelaide University

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Setting the Scene

Industrial policy is back. Over **2,500 interventions** were recorded globally in 2023 alone — driven by decarbonisation, supply-chain security, and geopolitical competition.

The global context

- US Inflation Reduction Act, EU Green Deal and CBAM, China's clean-energy dominance
- Critical minerals at the centre of great-power competition
- “Greening and techno-nationalism are hybridised in practice” (IISD, 2025)

Indonesia's position

- Holds **42% of global nickel reserves** (~55 million metric tonnes)
- Produces ~**60%** of the world's mined nickel (2024)
- Bet on nickel as the anchor commodity for domestic industrialisation and EV supply-chain entry

What Indonesia Did

Timeline

- **2009:** Mining Law mandates domestic processing of minerals
- **2014:** First full nickel ore export ban
- **2017:** Temporary relaxation — limited concentrate exports allowed
- **Jan 2020:** Full ban reinstated, extended to bauxite (2023)
- **2025–26:** RKAB quota tightening, nationalisation campaign

The instrument mix

- **Ore export restriction** — force processing onshore
- **RKAB production quotas** — control output volumes
- **HPM benchmark pricing** — set domestic ore prices below world prices
- **EV programme + local content rules** — target battery supply chains
- **Investment incentives** — PLI-style subsidies for smelter construction

The Trade Transformation

The export ban produced a dramatic shift in what Indonesia sells to the world:

Product	2019	2022	2024
Nickel ore exports	US\$1.1 bn	~0	~0
Ferro-nickel exports	US\$2.6 bn	US\$13.6 bn	US\$14.1 bn
Nickel mattes	US\$0.8 bn	US\$3.8 bn	US\$3.2 bn
Other intermediates	—	US\$2.7 bn	US\$4.0 bn
Total (partial basket)	US\$4.5 bn	US\$20.1 bn	US\$21.2 bn

What the numbers show

Smelters grew from **2 to over 44**; downstream investment of ~US\$40 bn; mined output tripled to ~2 Mt/yr.

What the numbers don't show

Who owns the capacity, who captures the rents, and what it cost to get here.

The China Dependence Paradox

Downstreaming was designed to build *Indonesian* industrial capacity. In practice, it built **Chinese-controlled capacity in Indonesia**.

Ownership and destination

- Chinese firms built **>90%** of Indonesia's nickel smelters
- Chinese companies control **~75%** of **~8 Mt** refining capacity
- **94%** of ferro-nickel export value goes to China
- Nickel oxide sinters: **99.7%** to China

A new form of dependence

- Upgrading in product form — but *not* diversification of partners
- Destination concentration index (HHI) reaches **8,900–9,900**
- Technology, logistics, financing, and offtake remain Chinese-linked
- Indonesian workers earn IDR 3–7M/month; Chinese supervisors earn IDR 25M+

The policy created a **dual dependence**: Indonesia holds the ore and the export restrictions; Chinese firms hold the processing capacity and the market channels.

The Costs

Environmental

- **370,000 hectares** of forest lost to mining (2001–2020) — more than a third old-growth rainforest
- Major nickel producers emitted **~15 Mt of GHGs** in 2023
- **60%** of Indonesia's electricity comes from coal; nickel uses **~15%** of total coal power
- Laterite processing emits **2–6×** more CO₂ than sulphide-ore methods

Social

- **107 fatalities**, 155 injuries across smelters (2019–2025)
- Dec 2023: furnace explosion at Morowali killed **21 workers**
- Respiratory infections in Bahodopi surged from 13,000 to **55,500** cases (2022–23)
- Indigenous communities displaced; ancestral lands lost
- Reports of passport confiscation, conditions meeting the definition of **modern slavery**

Spillovers for Trading Partners

The export ban reshapes incentives far beyond Indonesia's borders.

Negative

- **Australia:** nickel price crash (−21%, 2024) triggered a **26%** drop in mine output; BHP closed WA operations (1,600 jobs)
- **Philippines:** mining pressure displaced to Palawan — a global biodiversity hotspot; reserves may last only **~8 years** at current extraction rates
- **New Caledonia:** producers squeezed by oversupply and depressed prices
- Downstream users face concentrated supply risk — one country, one processing corridor

Positive

- **Philippines:** ore exports to Indonesia could double to **30 Mt** in 2026; **IndoPhil Nickel Corridor** launched (Feb 2026)
- **US–Philippines** critical-minerals MOU signed (Feb 2026) — diversification of sourcing away from Chinese-controlled chains
- **Thailand & Vietnam:** attracted competing EV manufacturing investment
- ASEAN Principles for Sustainable Minerals Development gaining operational traction

Indonesia's policy does not only restructure its own economy — it **redistributes costs and opportunities** across the region's nickel-producing and nickel-consuming states.

The Ground Is Shifting

The market

- Chinese EV makers pivoting to **LFP batteries** — which use *no nickel*
- LFP now powers nearly **half of all EVs** globally (IEA)
- Hyundai/LG cancelled a **US\$1.1 bn** battery cell plant in Indonesia (July 2024)
- Nickel prices depressed by oversupply; GNI (Jiangsu Delong) in financial distress

“The forests have been exploited to the brim. But you never got the electric-vehicle value chain.”

— Putra Adhiguna, Energy Shift Institute

The legal environment

- **WTO DS592**: Panel ruled Indonesia's export ban inconsistent with GATT Art. XI:1
- **EU–Indonesia CEPA** (agreed Sep 2025): explicit disciplines against export restrictions on raw materials
- **US–Indonesia reciprocal trade agreement** (Feb 2026): Indonesia commits to remove export restrictions on critical minerals for the US
- Each framework narrows the legal space for the core policy instruments

The Tensions That Remain

Indonesia's nickel export ban is not a simple success or failure story. It is a case study in the **trade-offs embedded in resource-based industrial policy** — sharpened by the energy transition.

Upgrading vs. dependence

Export values quintupled — but destination concentration deepened and ownership remained overwhelmingly foreign.

Green narrative vs. brown reality

The policy targets EV battery chains and cites climate objectives, yet the dominant production pathway runs on coal.

Sovereignty vs. market access

Indonesia asserts resource sovereignty, while the WTO, EU, and US progressively constrain the instruments through which sovereignty is exercised.

Industrial ambition vs. demand risk

The policy was built around nickel-for-batteries. The battery market is moving toward chemistries that may not need nickel at all.

Thank You

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harry.wardana@adelaide.edu.au

