

# Case study: Obi Island and the dangers of captive coal

*Captive coal units, built to support the growing nickel industry, are damaging health, air quality, biodiversity and the climate in Indonesia.*



**Location:** Obi Island, North Maluku, Indonesia

**Projects:** PT Halmahera Persada Lygend HPAL nickel refinery & Halmahera Jaya Feronikel smelter (powered by 1,260MW of captive coal capacity)

**Project owners:** Trimegah Bangun Persada (known as Harita Nickel) & Lygend Group



**Private investors (DFI intermediaries):**  
Hana Bank Indonesia & OCBC NISP (as part of an investment consortium with eight other commercial banks)



**Public financier (DFI indirectly involved):**  
International Finance Corporation



## Why are these projects harmful to people and planet?

- Damages local health, air quality, water & biodiversity
- Increased poverty, felt most keenly by women
- Coal emissions worsen climate change impacts
- Delays just transition efforts to decarbonise industry



# Captive: how the World Bank Group is financing the coal-powered destruction of Obi Island

Captive coal power is an emerging phenomenon which threatens to derail efforts to transition away from coal in Southeast Asia. According to Global Energy Monitor, Indonesia is set to more than double its captive coal capacity from 14.2 to 32.7 gigawatts (GW) if the expansion plans of public and private developers are realised in the coming decade. Unless public and private finance institutions are aware of this risk and ensure that they stop funding captive coal as well as grid-connected coal, then coal expansion will continue apace. As a result, any reductions in greenhouse emissions achieved through coal decommissioning could be undermined by an expansion in captive coal for industrial use.

Nowhere is this more apparent than on Obi Island in Indonesia, which is home to multiple captive coal units constructed to support the nickel processing industry. While these dedicated power stations support industrial processes deemed central to a green energy transition and the decarbonisation of transport systems (by processing metals for use in renewable energy and electric vehicle [EV] batteries), there remain highly detrimental impacts on local communities, including impacts on health, air and water quality and biodiversity. The coal emissions from these projects are also exacerbating the impacts of climate change on already climate-vulnerable communities in North Maluku and across Indonesia.

Not only are a range of regional commercial banks involved in financing nickel processing and captive coal facilities, the International Finance Corporation (IFC – the World Bank's private sector arm) is also indirectly connected to captive coal on Obi Island. While the IFC has previously committed to stop funding coal projects, loopholes in these commitments have allowed the IFC's financial intermediary clients to continue funding captive coal – and they could fund similar projects again in future. But there is resistance – affected communities, social movements and environmental justice activists on Obi Island (and across Indonesia) are fighting back to protect rights and put an end to coal finance for good.

**The following case study documents the expansion of captive coal on Obi Island, what the impacts have been, and what is needed to prevent similar impacts in future.**



A captive coal plant for nickel processing on Obi Island. Photo: NKK.

# The World Bank Group's coal phase out approach

In response to a 2016 investigation by Recourse (then BIC Europe), Inclusive Development International and the Philippine Movement for Climate Justice that revealed the IFC was exposed to dozens of coal power projects worldwide, the IFC began piloting elements of its Green Equity Approach (GEA) in 2019.<sup>(1)</sup> This approach means that whenever the IFC takes a new equity stake in a financial intermediary client, the client must agree to cut exposure to 'coal-related projects' in half by 2025 and to near zero by 2030.<sup>(2)</sup> A 2023 update to the GEA means that new equity clients must now also agree to stop funding new 'coal-related projects'.<sup>(3)</sup>

At the same time, the IFC greatly reduced the amount of general-purpose loans it gave to financial intermediaries and instead started ringfencing its debt investment for defined uses, such as spending on climate projects or on-lending to SMEs. Overall, these two approaches have greatly reduced IFC's exposure to coal power projects (although, as Recourse has demonstrated previously, gaps in the IFC's approach remain).<sup>(4)</sup>

However, one remaining faultline is that the IFC's definition of coal-related projects does not include captive coal at all. The GEA explicitly states that it does not cover "captive coal-fired power plants used for industrial applications such as mining, smelters, cement or chemical industries, etc."<sup>(5)</sup> This means that the IFC's financial intermediary clients do not have to include captive coal exposure in their disclosures, do not have to phase out captive coal support and, crucially, can still support new captive coal capacity.

This echoes a similar loophole in the World Bank's Energy Sector Directions paper of 2013, which states that attempts to fund coal in only rare circumstances will not apply to instances where coal is used for "heat, captive power, and chemical needs".<sup>(6)</sup>

By failing to exclude financial support for captive coal, the IFC and WB are not only exposing themselves, communities and the climate to risk. They are also missing a significant opportunity to act as standard setters and support efforts to shift the financial sector out of all forms of coal financing.



Living near captive coal in Morowali Industrial Park. Photo: Esa Setiawan/ Trend Asia.

# The impacts of Indonesia's nickel boom

In January 2024, the US Geological Survey confirmed that Indonesia has the world's largest nickel reserves with 55 million tons (Australia, in second place, has only 24 million tons).(7) Since the Indonesian government banned the export of raw nickel ore in 2014, the number of nickel mining and processing projects has grown rapidly.

As a result, the environmental and social impacts of the nickel industry are increasingly being felt by fishing communities, Indigenous Peoples and ecosystems across the country.

Nickel is deemed a critical resource in efforts to decarbonise transport systems, as it is used in the production of lithium-ion batteries, a vital component of EVs. According to research by the German foundation, Rosa Luxemburg Stiftung, nickel from PT Halmahera Persada Lygend is used in batteries produced for a range of global EV manufacturers including Tesla, Volkswagen, Toyota, BMW and Honda.(8) However, as Indonesian civil society group Trend Asia has highlighted, the rapidly growing global demand for nickel has had dire impacts on the areas of Indonesia that are home to nickel processing facilities.(9)

This includes Obi Island, in the South Halmahera region of North Maluku province, which in recent years has suffered losses of biodiversity, land disputes and forced evictions. A 2023 investigation by the Washington Post reported that the PT Halmahera Persada Lygend nickel refinery on Obi Island, which uses the controversial, slurry-producing High-Pressure Acid Leaching (HPAL) method to extract higher grade nickel,

produces "4 million metric tons of toxic waste ... every year".(10) A 2024 report by Climate Rights International (CRI) found that nickel development has been connected to "increased rates of cancer, respiratory illnesses, and allergic contact dermatitis" among local populations, as well as "increased risk of asthma, nasal congestion, and skin tumours due to ambient air pollution and toxic dust fall".(11)

This is before even considering the impacts, including increased air pollution and the substantial greenhouse gas emissions, associated with captive coal. The same CRI report highlights the potential human health risks from coal ash and dust such as "asthma, heart attacks, decreased lung function, and premature death".(12) Research by Trend Asia found that the greenhouse gas emissions generated by the Obi island nickel industrial park reached nearly 3.5 million metric tonnes in 2022, equivalent to six times the emissions of Timor Leste.(13)

Stations such as those on Obi Island therefore pose huge social, environmental and climate risks, threatening to cause severe harms to communities and to undermine the efforts being taken elsewhere to reduce the air pollution and greenhouse gas emissions produced by Indonesia's coal fleet.

## Known captive coal units on Obi Island

Power plant	Owner	Industrial use	Capacity
PT Halmahera Persada Lygend power station Phase 1 & 2	PT Halmahera Persada Lygend	PT Halmahera Persada Lygend HPAL nickel refinery	2 x 30MW, 2 x 150MW (operating); 360MW (planned)
PT Halmahera Persada Lygend power station Phase 3	PT Obi Nickel Cobalt	PT Obi Nickel Cobalt refinery	4 x 380 MW (planned)
HJF Power Plant	PT Halmahera Jaya Feronikel	HJF RKEF ferronickel smelter	6 x 150 MW
MSP Pulau Obi power station	PT Megah Surya Pertiwi (MSP)	MSP ferronickel smelter	3 x 38 MW
Jinchuan Group WP&RKA power station	WP&RKA	Jinchuan nickel smelter	3 x 150 MW
<b>Total operating captive coal capacity</b>	<b>2,444 MW</b>	<b>Total planned captive coal capacity</b>	<b>4,324 MW</b>

*Data from Global Energy Monitor*

## Impact of Obi Island projects on women

Journalists in Indonesia have also highlighted how women in Kawasi on Obi Island “bear a double burden” from local development and how “their domestic jobs are growing” as they have to constantly clean and fight off invasive coal dust from the captive coal unit.<sup>(14)</sup> Similarly, Trend Asia has reported that one impact of coal development on Obi Island has been an increase in structural poverty, which has exacerbated impacts on women.<sup>(15)</sup>

The World Bank Group (WBG) as a whole is committed, under its Gender Strategy, to support gender equality, inclusive growth

and the empowerment of all women and girls.<sup>(16)</sup> Furthermore, the IFC’s own website recognises that “women and other disadvantaged groups are likely to be more negatively impacted by the effects of climate change”.<sup>(17)</sup> It is therefore completely contradictory for the IFC to continue to support any fossil fuel development, on Obi Island and beyond, as these impacts will be felt particularly harshly by women and other marginalised groups and will undermine WBG commitments to foster inclusive growth and support gender equality.



# The IFC's connections to captive coal



The IFC is exposed to captive coal on Obi Island through its financial intermediary client Hana Bank Indonesia. The IFC originally invested \$5m in 2007 to support Hana Bank Korea to set up an Indonesian subsidiary.<sup>(18)</sup> In 2019, the IFC then invested a further \$15.36m to expand its stake in Hana Bank Indonesia, through a rights issue, and selected this investment as the first with which to test some elements of what would later become the IFC's Green Equity Approach (the IFC says, however, that the terms of the GEA were not a legal requirement at the time of investment).<sup>(19)</sup> In April 2022, Hana Bank Indonesia was a mandated arranger in a \$530m project loan to PT Halmahera Jaya Feronikel (HJF), one of the aforementioned subsidiaries of Harita Nickel. This loan was used to pay off the company's debts and to build the first phase of HJF's nickel smelter.<sup>(20)</sup> This smelter, which uses rotary kiln-electric furnace (RKEF) technology, will be powered by six captive coal units of 150 MW each.<sup>(21)</sup>

In response to this, an IFC spokesperson said that, while Hana Bank Indonesia did finance the smelter, this does not automatically mean that they also financed the captive coal-fired plant. There is an element of truth to this. As captive coal units are not standalone subprojects, like a grid-connected coal-fired power plant, their financing arrangements are particularly opaque and it is basically impossible, as Global Energy Monitor has highlighted in the case of the PT Halmahera Persada Lygend smelter, to ascertain what proportion of the financing deal supported the captive coal unit itself.<sup>(22)</sup>

However, it is also the case that, because the financing arrangements for the captive coal unit are not made distinct, the developer would be able to either use the funds earmarked for the smelter to finance the coal unit, or (because the funds are ultimately fungible) to accept the funds to finance the smelter while funding the coal unit from its own account. Ultimately, the result is the same; the indirect lending from the DFI enables the subproject developer to construct the smelter and the captive coal unit.

Perhaps more worryingly, the IFC is also potentially exposed to captive coal via another investment intended to support climate projects. In 2020, the IFC made a \$200m debt investment in OCBC NISP's Sustainability Bond programme, comprising Green and Gender bonds, for the purpose of on-lending to climate projects and Women-Owned SMEs.<sup>(23)</sup> After that investment was made, in April 2021, OCBC NISP was one of commercial banks that invested a combined \$625m in the PT Halmahera Persada Lygend nickel refinery project on Obi Island.<sup>(24)</sup>

The IFC's website states that its investment in OCBC NISP was to be used for "on-lending to eligible green projects".<sup>(25)</sup> An IFC spokesperson added that the project excluded the financing of subprojects exposed to higher environmental and social risks, meaning that the financing of smelters (which do have high E&S risks) was not eligible from the IFC's loan.

However, the IFC's *Guidance Note on Financial Intermediaries*, suggests that OCBC NISP should have still considered the IFC's E&S risk management approach, including the Performance Standards, when financing the smelter, even if this was not financed directly from the IFC's loan facility. The *Guidance Note* states clearly that financial intermediaries must apply "the agreed E&S standards and requirements" to all projects of the same type as those supported by the IFC's investment, that are financed from the time of the IFC's investment (OCBC NISP financed the smelter less than a year after IFC's investment).(26) For example:

*"If IFC provides a credit line for SMEs and the FI finances SMEs also outside this credit line, then the FI's entire SME operations originated after IFC's funding also apply the agreed E&S standards and requirements."*(27)

In this example we could instead say that, because the IFC provided a debt investment for climate projects, OCBC NISP's entire climate portfolio originated after IFC's funding should also have applied the agreed E&S standards and requirements.

It seems highly plausible that OCBC NISP would consider the Halmahera Persada Lygend HPAL refinery to be an eligible green project, given both the project's role in EV supply chains and that a 2020 Sustainability Bond Framework (published by OCBC NISP's parent company OCBC) states that projects related to infrastructure and "capacity improvement" for EVs are eligible uses of proceeds for Green bonds. (28) Furthermore, DBS, the lead co-ordinator of the consortium which invested the \$625m in PT Halmahera Persada Lygend, referenced its own commitment to "finance SGD 50 billion in renewable, clean-energy and green projects by 2024" in its press release on the investment.(29)

Given this, it appears that the IFC's Environmental and Social risk standards and requirements, including the Performance Standards, should have applied to the investment in OCBC NISP and any on-lending to PT Halmahera Persada Lygend. That would be irrespective of whether the proceeds of the IFC's investment in OCBC NISP were specifically used to fund the HPAL smelter. However, without reviewing the loan agreement between the IFC and OCBC NISP (which the IFC does not publicly disclose) it is impossible to verify precisely which projects these standards should have applied to.

These requirements did include a coal exclusion, with the IFC stating that "coal related projects ... will be excluded" from its investment in OCBC NISP. However, in other guidance documents, the IFC has said explicitly that its definition of 'coal-related projects' does not apply to captive coal power.(30) Furthermore, in response to our research, the IFC confirmed that its exclusion of coal-related subprojects does not apply to captive coal power plants. As such, it appears that the captive coal loophole in the IFC's definition of 'coal-related projects' is a significant loophole that could allow the IFC's financial intermediary clients to finance captive coal units.

In response, the IFC said that the funding of higher-risk projects, such as a smelter, is not eligible from the IFC's loan to OCBC NISP, and that the IFC has not seen any higher-risk transactions supported by its loan when OCBC NISP has reported back on its use of proceeds. However, this belies the fact that, as per the wording of the *Guidance Note* quote above, these restrictions should possibly have also been applied to the climate projects that OCBC NISP has funded (since the IFC's investment) outside of the IFC's loan

project. More importantly, the funds provided by the IFC to support OCBC NISP's climate portfolio are ultimately fungible. Even if the IFC's own funds are not specifically supporting this project, the investment is still freeing up funds for OCBC NISP to invest elsewhere in its climate portfolio, including in the PT Halmahera Persada Lygend smelter.

Ultimately, this makes the IFC's investment in OCBC NISP a missed opportunity. While there may be some climate benefits from the subprojects supported by this investment, the IFC should also be using its leverage at the point of investment to encourage financial intermediaries to stop funding all forms of coal. If the IFC is unable to do this, it should commit to stop financing any financial intermediaries engaged in the expansion of coal (including captive coal).



*An aerial view of Obi Island's nickel projects.*

*Source: Imagery © 2024 Airbus, CNES / Airbus, Landsat / Copernicus, Maxar Technologies, Map data © 2024 Google.*



# Recommendations for the World Bank Group

- The IFC must immediately close the loophole in its Green Equity Approach for captive coal. The IFC's definition of 'coal-related projects' should include captive coal-fired power plants for industrial use as well as projects that are functionally reliant on captive coal-fired power plants.
- The IFC should introduce explicit terms into its debt investments to prevent funds being used to support captive coal-fired power plants or projects that are functionally reliant on captive coal.
- The IFC should use its leverage at the point of investment to encourage financial intermediary clients to stop supporting coal and captive coal expansion. In cases where the client does not agree, the IFC should commit to stop doing any business with financial intermediaries engaged in coal expansion.
- The World Bank should amend its Energy Sector Directions paper to ensure that:
  - the Bank does not provide support to greenfield coal power generation projects in any circumstances.
  - this exclusion must also explicitly apply to captive coal units that produce heat and power for industrial uses.
- The IFC should develop a standalone Performance Standard on Climate Risk, in the upcoming Performance Standard review, that categorically rules out financing for captive coal projects or projects that would not exist without captive coal. For example, AIIB's Energy Sector Strategy commits to "**not finance thermal coal mining, coal-fired power and heating plants or projects that are functionally related to coal which includes projects that would not be carried out without dedicated coal-based power supply**" (emphasis added).(31)
- Furthermore, the IFC should develop a distinct Standard on Financial Intermediary lending, given it comprises a majority of IFC's portfolio. This should integrate the requirements currently set out in the IFC's *Guidance Note on Financial Intermediaries* and Green Equity Approach, and make them mandatory for financial intermediary clients.
- The IFC should publicly disclose the name, sector and location of all subprojects financed via financial intermediary lending, as well as the loan contracts agreed with borrowers, to enable greater transparency and public verification over the impacts of its financing.
- The World Bank and/or IFC should contribute to remediating any harms caused by existing or future financial support for coal power projects, captive coal projects, or projects reliant on captive coal.

# References

1. Inclusive Development International. (2016). *Outsourcing Development: Campaigning for transparency and accountability in financial intermediary lending*. <https://www.inclusivedevelopment.net/policy-advocacy/outsourcing-development-campaigning-for-transparency-and-accountability-in-financial-intermediary-lending/>.
2. International Finance Corporation. (2020). *Greening Equity Investments in Financial Institutions*. <https://www.ifc.org/en/insights-reports/2023/greening-equity-investments-in-financial-institutions>.
3. International Finance Corporation. (2023). *IFC's Green Equity Approach (GEA) 2023 Update*. <https://www.ifc.org/content/dam/ifc/doc/2023-delta/gea-2023-update-1.pdf>.
4. Recourse. (2023). *Slipping Through The Net: Paris alignment and the missed opportunity for MDBs to stop funding fossil fuels*. <https://re-course.org/newsupdates/porous-paris-alignment-methodology-wont-stop-ifc-finance-leaking-to-coal-new-report-says/>.
5. International Finance Corporation, *Greening Equity Investments in Financial Institutions*.
6. World Bank. (2013). *Toward a sustainable energy future for all: directions for the World Bank Group's energy sector*, p.25. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/745601468160524040/toward-a-sustainable-energy-future-for-all-directions-for-the-world-bank-groups-energy-sector>.
7. US Geological Survey. (2024). 'Mineral Commodity Summaries', p.125. <https://pubs.usgs.gov/periodicals/mcs2024/mcs2024-nickel.pdf>.
8. Rosa Luxemburg Stiftung. (2023). *Fast and Furious for Future: The dark side of electric battery vehicle components and their impacts in Indonesia*, p.29. [https://www.rosalux.de/fileadmin/images/publikationen/Studien/Fast\\_and\\_Furious\\_for\\_Future.pdf](https://www.rosalux.de/fileadmin/images/publikationen/Studien/Fast_and_Furious_for_Future.pdf).
9. Trend Asia. (2023). *How IFC's Support For Captive Coal In Nickel Industrial Park Is Destroying Obi Island*. <https://trendasia.org/en/how-ifcs-support-for-captive-coal-in-nickel-industrial-park-is-destroying-obi-island/>.
10. Rebecca Tan, Dera Menra Sijabat, Joshua Irwandi. (2023). 'To meet EV demand, industry turns to technology long deemed hazardous'. Washington Post, 10 May 2023. <https://www.washingtonpost.com/world/interactive/2023/ev-nickel-refinery-dangers/>.
11. Climate Rights International. (2024). *Nickel Unearthed: The Human and Climate Costs of Indonesia's Nickel Industry*, p.58. [https://cri.org/wp-content/uploads/2024/01/NICKEL\\_UNEARTHED.pdf](https://cri.org/wp-content/uploads/2024/01/NICKEL_UNEARTHED.pdf).
12. Climate Rights International, *Nickel Unearthed*, p.58.
13. Trend Asia, *How IFC's Support for Captive Coal In Nickel Industrial Park Is Destroying Obi Island*, p.22.
14. Project Multatuli. (2022). 'Obi Woman Survives in the Middle of Nickel Industry: 'People Are Made to Die Slowly' (translated by Google). <https://projectmultatuli.org/perempuan-obi-bertahan-di-tengah-gusuran-industri-nikel-torang-dibuat-mati-perlahan-lahan/>.

15. Trend Asia, *How IFC's Support For Captive Coal In Nickel Industrial Park Is Destroying Obi Island*, p.8.
16. World Bank Group. (2015). *World Bank Group Gender Strategy (FY16–23): Gender Equality, Poverty Reduction and Inclusive Growth*.  
<https://openknowledge.worldbank.org/entities/publication/95293946-99d3-5ef3-92a0-1fd78a3f11e6>.
17. IFC. (2024). 'Gender Equality and Climate Financing'. <https://www.ifc.org/en/what-we-do/sector-expertise/gender/gender-inclusive-climate-investment>.
18. IFC Disclosures. (2007). 'Hana Indonesia'. <https://disclosures.ifc.org/project-detail/SPI/26283/hana-indonesia>.
19. IFC Disclosures. (2019). 'KEB Hana Indonesia Rights Issue IV'.  
<https://disclosures.ifc.org/project-detail/SII/42034/keb-hana-indonesia-rights-issue-iv>.
20. Trend Asia, *How IFC's Support For Captive Coal In Nickel Industrial Park Is Destroying Obi Island*, p.22.
21. Ibid., p.23.
22. Global Energy Monitor. (2022). 'PT Halmahera Persada Lygend Nickel Smelter power station'.  
[https://www.gem.wiki/PT\\_Halmahera\\_Persada\\_Lygend\\_Nickel\\_Smelter\\_power\\_station](https://www.gem.wiki/PT_Halmahera_Persada_Lygend_Nickel_Smelter_power_station).
23. IFC Disclosures. (2020). 'DCM OCBC NISP 2'. <https://disclosures.ifc.org/project-detail/SII/43613/dcm-ocbc-nisp-2>.
24. Global Energy Monitor, 'PT Halmahera Persada Lygend Nickel Smelter power station'.
25. IFC Disclosures, 'DCM OCBC NISP 2'.
26. IFC. (2023). *Guidance Note on Financial Intermediaries*, p.1.  
<https://www.ifc.org/content/dam/ifc/doc/2023/202309-ifc-guidance-note-on-financial-intermediaries.pdf>.
27. Ibid.
28. Oversea-China Banking Corporation. (2020). *OCBC Sustainability Bond Framework*.  
<https://www.ocbc.com/assets/pdf/green%20bond/ocbc%20sustainability%20bond%20framework.pdf>.
29. DBS. (2021). *DBS launches USD 625 million financing structure for PT Halmahera Persada Lygend, Indonesia's first high pressure acid leach smelter*, 1 April 2021.  
[https://www.dbs.com/newsroom/DBS\\_launches\\_USD\\_625\\_million\\_financing\\_structure\\_for\\_PT\\_Halmahera\\_Persada\\_Lygend\\_Indonesias\\_first\\_high\\_pressure\\_acid\\_leach\\_smelter](https://www.dbs.com/newsroom/DBS_launches_USD_625_million_financing_structure_for_PT_Halmahera_Persada_Lygend_Indonesias_first_high_pressure_acid_leach_smelter).
30. IFC. (2020). *IFC's Approach to Greening Equity Investments in Financial Institutions*, p.9.  
<https://www.ifc.org/content/dam/ifc/doc/2023-delta/ifc-approach-to-greening-equity-investments-in-financial-institutions.pdf>
31. Asian Infrastructure Investment Bank. (2022). *Energy Sector Strategy: Sustainable Energy for Tomorrow*. [https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/\\_download/AIIB-Energy-Sector-Strategy-Update\\_Final\\_Nov-2022.pdf](https://www.aiib.org/en/policies-strategies/strategies/sustainable-energy-asia/.content/index/_download/AIIB-Energy-Sector-Strategy-Update_Final_Nov-2022.pdf).



Kraijenhoffstraat 137A, 1018 RG, Amsterdam, The Netherlands  
[www.re-course.org](http://www.re-course.org)

Follow us on social media

