

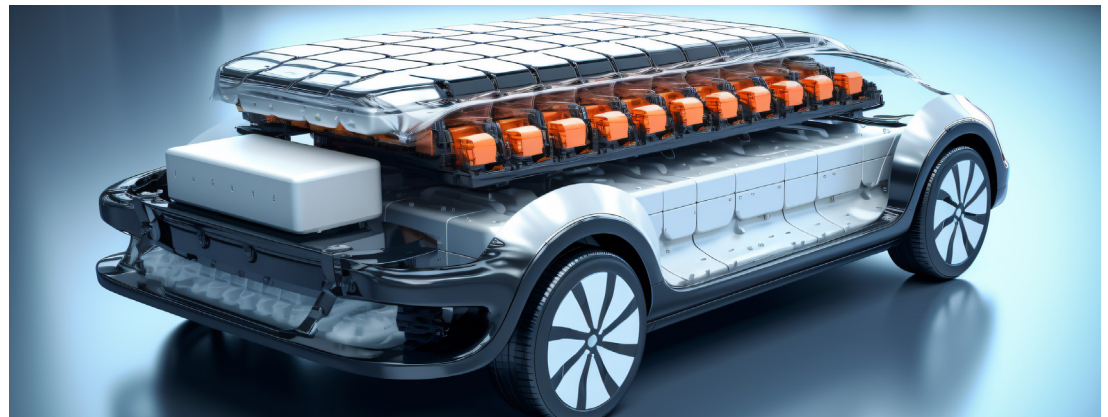
# P R A K A R S A *Policy Brief*

May 2024

## Glorification of Economic Growth and Energy Trilemma in the Nickel Industry

### Key Points:

- Nickel provides significant economic benefits to Indonesia through Non-Tax State Revenue (PNBP), accounting for Rp4.18 trillion. The share of royalty from nickel in the national Non-Tax State Revenue (PNBP) was 13.19% of the total value of PNBP royalty from natural resources in May 2022 .
- The economic benefit of nickel is offset by its negative externalities on the environment and human rights. The Indonesian public has not been aware of the adverse impact of nickel industry on the environment and human rights due to lack of reports in mainstream media.
- The Ministry of Energy and Mineral Resources (ESDM), Ministry of Environment and Forestry (KLHK), and the provincial/district/ regional governments must oversee nickel industry to ensure that it complies just and sustainable industry standards.



### Introduction

Indonesia is one of the countries with the highest nickel reserves and ore nickel production globally. According to the United States Geological Survey (USGS), Indonesia's nickel reserves in 2023 estimated to be 55 million metric tons, equal to 42.3% of the total nickel reserves globally, which was estimated at 130 million metric tons (Katadata, 2024a). Indonesia's ore nickel production 2023 is accounted for approximately 1.8 million metric tons and contributed to 50% of the total global nickel production (Katadata, 2024b).

Indonesia's nickel export volume has increased as well. In May 2023, the total export of nickel accounted for 458.36 million kilograms (kg), growing rather than the previous year's approximately 211.52 million kg. During that period, the largest nickel exports went to China, amounting to 394 million kg, with the export valuation reaching US\$2.09 billion. Hence, the export valuation has significantly increased compared to May 2022, which accounted for 152.96 million kg or equal to US\$1.19 billion (Katadata, 2023c).

The enormous potential of reserves and ore nickel production in Indonesia has affected the country's economic condition. For instance, the Non-Tax State Revenue (PNBP) from nickel royalty escalated eightfold in May 2022, amounting to Rp4.18 trillion compared to approximately Rp531 million in 2015. Through May 2022, the realization of PNBP of non-oil and gas natural resources reached Rp31.67 trillion. Thus, PNBP from nickel royalties have contributed up to 13.19% of total PNBP from all natural resources combined (DDTC News, 2022).

This prospect encouraged Indonesia to have ambition to carry out downstreaming to become a major nickel supplier at the global level, particularly raw materials for electric vehicle batteries. The government issued Ministerial ESDM Regulations

Number 11 Year 2019 to prohibit ore nickel export. The aim of this downstreaming policy is to generate more multiplier economic effects for society, mainly for those who live around nickel mining areas.

However, the economic benefits provided by the nickel industry are disproportionately unaligned with the negative externalities it has caused such as environmental degradation and human rights violations. Unfortunately, the Indonesian public are unaware of such negative impacts because the Indonesian media continue to present a one-sided story of the industry's positive effects on the economy and not its impact on the environment and human rights. In addition to human rights violations and environmental degradation that took place massively in nickel industry provinces such as Sulawesi and Maluku, these provinces also have significant increased of poverty rates, in contrast with the multiplier effect projected by the nickel downstreaming policy.

### Pseudo-Multiplier Effect: The Glorification of Economic Growth

Indonesia's nickel reserves are spread mainly across Central and Eastern Indonesia. In this regard, 90% of Indonesia's nickel reserves are mushroomed across Central Sulawesi, South Sulawesi, Southeast Sulawesi, and North Maluku (Kementerian ESDM, 2020). Grouped by the provinces, the volume of potential nickel reserves in Sulawesi accounted for 2.6 billion tons, Maluku 1.4 billion tons, and Papua 60 million tons (Katadata, 2023a).

Indonesia desires to increase the number of smelters in each nickel mining area. Within 2020, the number of Mining Business Licenses for Production Operations (IUP OP) and nickel smelters that have been operated amounted to 292 IUP, 4 Contracts of Work (KK), and 11 smelters (Kementerian ESDM, 2020). The largest number of IUP OP is in Southeast Sulawesi, amounting to 154 IUP OP and 1 KK with

nickel mining areas of 156,197.04 hectares, South Sulawesi with 34 IUP and nickel mining areas of 198,624.6 hectares, West Papua 3 IUP and 1 KK with nickel mining areas of 22,636 hectares, Maluku 2 IUP with nickel mining areas of 4,389 hectares, as well as Papua 1 IUP and 1 KK with nickel mining areas of 16,470 hectares (Kementerian ESDM, 2020; Kumparan, 2023; Theodora & Yunus, 2023). By 2024, Indonesia aims to build 53 smelters, thirty of which will be nickel smelters (Katadata, 2023d).

The abundance of IUP OP for nickel smelters is not in line with the economic growth predicted from this industry. In fact, the downstreaming policy has not yet provided multiplier effects for most nickel reserves areas as expected. This is caused by various reasons, as described below.

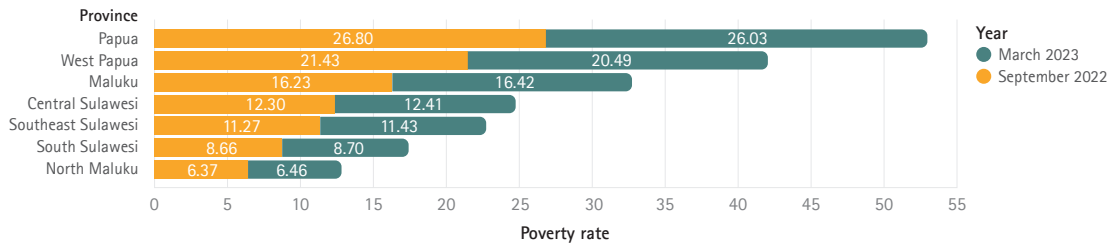
*First*, labour absorption is narrowed by a higher level of education and specific skills. Central Sulawesi is one of the regions with the largest potential volume of nickel reserves, and it claimed to have significantly increased job creation. Indeed, before downstreaming policy was enacted, there were only 1,800 workers employed in nickel industry, compared to 71,500 workers after downstreaming policy (Katadata, 2023b). Nonetheless, the majority of workers in the industry are foreign workers and workers with higher education, for example those with bachelor's degrees in specific skills such as Mining Engineering, Metallurgical

Engineering, Materials, Chemistry, Geophysical, and Geological Engineering (Kementerian ESDM, 2020).

Claim about labour force absorption is also in contrast with the Unemployment Rate (TPT) and Human Development Index (HDI) in nickel industry areas, which rates are among the worse in Indonesia. The unemployment rates in Maluku and West Papua were above the national unemployment rate, which accounted for 5.45% nationally in February 2023, whilst Maluku was 6.08% and West Papua was 5.53% (BPS, 2023b). According to the HDI, seven central nickel industry provinces have HDI below the national average in 2023 (73.55). For instance, the HDI in Papua was in the lowest rank at 62.25, followed by West Papua with a total HDI of 66.66. HDI in Southeast Sulawesi accounted for 72.79, South Sulawesi for 73.46, and Central Sulawesi for 70.95. The HDI in Maluku and North Maluku hit rock bottom compared to Sulawesi at 70.94 and 70.21, respectively (BPS, 2023a).

*Second*, nickel mining areas are among Indonesia's regions with the highest number of people living in monetary poverty. Almost a fifth (19.68%) of the population in Maluku and Papua provinces live in poverty, while in Sulawesi about 10.08% of the population live in poverty (BPS, 2023c).

Figure 1 Poverty Rate in Seven Provinces of Nickel Mining Areas



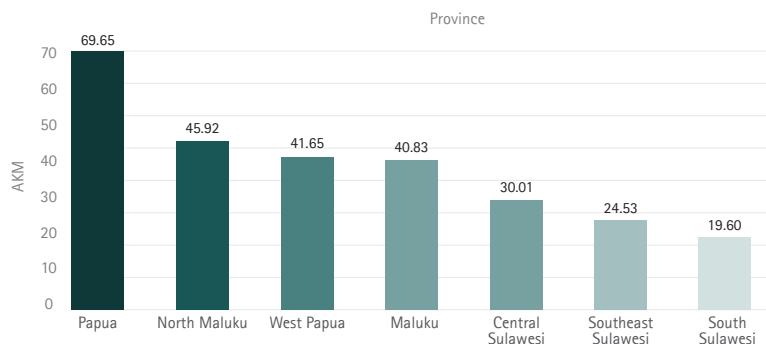
Sum of Poverty rate for each Province. Color shows details about Year.

Source: BPS, 2023

Besides, most of the nickel industry areas also have increased monetary poverty. For example, Maluku experienced the highest poverty rate increase (0.19%) compared to other provinces in Indonesia, from 16.23% in September 2022 to 16.42% in March 2023 (BPS, 2023c). Furthermore, Southeast Sulawesi also suffered from an increase of 0.16% in its poverty rate, from 11.27% in September 2022 to 11.43% in March 2023 (BPS, 2023c). Only Papua and West Papua encountered a downturn in the poverty rate, although only under one per cent.

*Third*, the major provinces where nickel mining areas are located have the highest multidimensional poverty ratio. Multidimensional poverty ratio is the ratio of individuals in households below multidimensional poverty line compared to total individuals in households below multidimensional poverty line in a particular district (The PRAKARSA, 2023).

Figure 2 Multidimensional Poverty Index of Seven Provinces with Highest Reserves Nickel in 2021



Sum of AKM for each Province. Color shows details about Province.

Source: PRAKARSA, 2023

The national multidimensional poverty ratio in 2021 was 14.34% of the total population in Indonesia. The multidimensional poverty ratio in nickel mining areas was higher compared to the national ratio. For instance, Papua holds the highest ratio of 69.65%, North Maluku in the third rank (45.92%), followed by West Papua with 41.65%, and Maluku in the fifth position with 40.83% (The PRAKARSA, 2023). The rest are followed by Central Sulawesi, Southeast Sulawesi, and South Sulawesi with ratio 30.01%, 24.53%, and 19.60%, respectively.

### The Truth Untold: Media Discourse Towards Smelters and Nickel Mining

Mainstream and investigative media have not yet discussed energy justice, including the fulfillment of indigenous people's rights, women's rights, as well as Free Prior and Informed Consent (FPIC).

PRAKARSA's study (2023) found 244 statements in mainstream and investigative media from 1 January 2020 until 31 March 2023 about nickel industry. Discourse on the economic aspects of the nickel industry, such as electric vehicle batteries and nickel downstreaming dominating these media reports. However, energy injustice issues that arose due to nickel industry processes have not yet been the primary discussion in the mainstream media. Issues such as indigenous people's rights, women's rights, and FPIC issues have only been marginal issues in the mainstream media.

Aside from that, the topics of electric vehicle batteries and the downstream nickel industry became the most discussed issues positively, whilst illegal mining and the fulfilment of labour rights were mainly discussed negatively. The impact of nickel industry activities on the environment, human rights, and society's economy around nickel mining areas have not yet been the primary discourse in policymakers' statements in the media. PRAKARSA (2023) found that government actors (President of the Republic of Indonesia, DPR, DPRD, central government, regional government, law enforcement officer, judiciary) tend to make statements about positive aspects of nickel industry such as downstreaming, electric vehicle battery, increased revenues and income. Meanwhile, negative impacts arising from the nickel industry in terms of environment, human rights, politics, and economics were mainly discussed by Civil Society Organizations (CSOs) such as WALHI and JATAM.

### Energy Trilemma: Energy Injustices toward Society around Smelters and Nickel Mining

The energy trilemma is a framework that must be considered by policymakers when managing energy resources. The trilemma comprises three aspects, including energy security, energy access, and environmental sustainability (Setyowati, 2020). Nevertheless, research conducted by PRAKARSA (2023) discovered that nickel industry activities often neglect equal access and sustainability factors, not only the environmental aspects but also the social, economic, and governance.

Nickel industry activities have caused environmental degradation in areas nearby nickel mining. Investigative media such as Tirtoid and Mongabay reported about environmental destruction in North Maluku, East

Halmahera, where the reddish-brown waste from PT Alam Raya Abadi (ARA) flooded fields, paddy fields, fishponds, and even homes in Baturaja Village (Tirtoid, 2021). Similar occurrences are also reported in Weda, Central Halmahera, where local communities lose access to clean water due to river contamination and must purchase bottled water (Mongabay, 2022). The operational of PT Trimegah Bangun Persada (TBP) in South Halmahera has also resulted in environmental pollution, including land, sea, and coastal areas, leading to the loss of local food resources for communities (Mongabay, 2021).

From the social and economic perspective, nickel industry activities have led to conflicts and land disputes, deprivation of indigenous customary land rights and disruption of livelihoods for communities. These were reported by some investigative media and CSOs. In South Halmahera, land eviction of local residents occurred without adequate compensation compared to the extent and condition of the land taken (Project Multatuli, 2022). Similar situations also happened in East Halmahera, where the customary land of Tobelo indigenous communities was seized for nickel industry operations. As a result, some indigenous communities were forced to relocate and find new settlements (Project Multatuli, 2022). Moreover, fishermen in North Morowali have experienced a decline in their catch. In the past, local fishermen could catch up to 5,000 fish, but these days they can only catch approximately 1,000 fish per trip (AEER, 2021).

Corrupt practices also embedded in nickel industrial activities governance. Abuse of authority by public officials was found within the process of granting Borrow-to-Use Forestry Permit (IPPKH) and Mining Business Permit (IUP) to mining companies. For instance, a case of alleged abuse of authority by the Head of the Department of Energy and Mineral Resources (ESDM) in Southeast Sulawesi was found due to the absence of synchronization between the company's documents and the issued IUP. The company was established in 2021, whilst the issued IUP OP was listed in 2011 (Pikiran Rakyat, 2022).

Reflecting on the energy injustice experienced by communities around nickel mining areas, it is urgent to improve policies and governance in this sector. The governance of energy sector needs to adhere firmly to sustainability principles, ensuring that the welfare effects are also distributed equally to communities.

### Policy Recommendation

Based on the previously provided explanation, policymakers and the media need to consider the following policy recommendations:

1. The Ministry of Energy and Mineral Resources (KESDM) and the Ministry of Environment and Forestry (KLHK) should review the mining business permits and IPPKH of nickel industries whose business practices are environmentally destructive and violating human rights.
2. Provincial/regional governments in surrounding nickel mining and smelter areas need to monitor nickel mining and smelting activities to ensure sustainable businesses that respect human rights. Furthermore, the government should also ensure that multiplier

effects benefit communities around mining areas.

3. The media should cover and present news about nickel industry in a factual and fair manner, not only from the economic perspective but also from the perspectives of indigenous and/or local communities and vulnerable groups.
4. The government should mandate nickel mining and smelting companies investing in Indonesia to conduct thorough Human Rights Due Diligence (HRDD) and environmental impact assessment and establish complaint and grievance mechanisms to prevent human rights violations and environmental degradation resulting from the industry's business practices.
5. The government should impose strict law enforcement against human rights and environmental damage perpetrators in every nickel industry supply chain process.

## References

- AEER. (2021). *Transisi Berkeadilan: Sektor Batubara dan Nikel* (p. 88).
- BPS. (2023a). *Indeks Pembangunan Manusia 2023* (p. 12).
- BPS. (2023b). *Keadaan Ketenagakerjaan Indonesia Februari 2023* (p. 28).
- BPS. (2023c). *Profil Kemiskinan di Indonesia Maret 2023*. Badan Pusat Statistik.
- DDTC News. (2022, June 28). *Harga Acuan Melesat, Setoran PNBP dari Royalti Nikel Tumbuh 111 Persen*. <https://news.ddtc.co.id/harga-acuan-melesat-setoran-pnbp-dari-royalti-nikel-tumbuh-111-persen-40165>
- Katadata. (2023a, Mei). *Ini Pulau Indonesia yang Kaya Cadangan Nikel*. <https://databoks.katadata.co.id/datapublish/2023/05/19/ini-pulau-indonesia-yang-kaya-cadangan-nikel>
- Katadata. (2023b, Agustus). *Nikel: Hilirisasi, Potensi, dan Kemiskinan Daerah Tambang yang Meningkat 2023*. <https://databoks.katadata.co.id/datapublish/2023/08/03/nikel-hilirisasi-potensi-dan-kemiskinan-daerah-tambang-yang-meningkat-2023>
- Katadata. (2023c, Agustus). *Nikel Indonesia Paling Banyak Diekspor ke Tiongkok pada Pertengahan 2023*. <https://databoks.katadata.co.id/datapublish/2023/08/11/nikel-indonesia-paling-banyak-diekspor-ke-tiongkok-pada-pertengahan-2023>
- Katadata. (2023d, April 27). *Pemerintah Berambisi Bangun 53 Smelter pada 2024, Ini Rinciannya*. <https://databoks.katadata.co.id/datapublish/2023/04/27/pemerintah-berambisi-bangun-53-smelter-pada-2024-ini-rinciannya>
- Katadata. (2024a, February 13). *Indonesia Kantongi Cadangan Nikel Terbesar Global pada 2023*. <https://databoks.katadata.co.id/datapublish/2024/02/13/indonesia-kantongi-cadangan-nikel-terbesar-global-pada-2023>
- Katadata. (2024b, February 13). *Indonesia, Negara Penghasil Nikel Terbesar di Dunia pada 2023*. <https://databoks.katadata.co.id/datapublish/2024/02/13/indonesia-negara-penghasil-nikel-terbesar-di-dunia-pada-2023>
- Kementerian ESDM. (2020). *Peluang Investasi Nikel Indonesia*.
- Kumparan. (2023, February 17). *Daerah Penghasil Nikel yang Tersebar di Wilayah Indonesia*. [kumparan.com/berita-bisnis/daerah-penghasil-nikel-yang-tersebar-di-wilayah-indonesia-1zppwB1GTCn](https://kumparan.com/berita-bisnis/daerah-penghasil-nikel-yang-tersebar-di-wilayah-indonesia-1zppwB1GTCn)
- Mongabay. (2021, November 14). *Cerita Warga dari Pulau Penghasil Bahan Baku Baterai Kendaraan Listrik*. <https://www.mongabay.co.id/2021/11/14/cerita-warga-dari-pulau-penghasil-bahan-baku-baterai-kendaraan-listrik-1/>
- Mongabay. (2022, August 28). *Cerita Perempuan Adat Sawai Ketika Ada Industri Nikel*. <https://www.mongabay.co.id/2022/08/28/cerita-perempuan-adat-sawai-ketika-ada-industri-nikel/>
- Pikiran Rakyat. (2022, February 7). *Dipolisikan Atas Dugaan Penyimpangan izin Tambang Nikel, Kadis ESDM Sulteng: Sesuai SOP*. <https://banggai.pikiran-rakyat.com/sulteng/pr-1993676348/dipolisikan-atas-dugaan-penyimpangan-izin-tambang-nikel-kadis-esdm-sulteng-sesuai-sop?page=3>
- Project Multatuli. (2022, January 31). *Perempuan Obi Bertahan di Tengah Gusuran Industri Nikel: "Torang Dibuat Mati Perlahan-lahan"*. <https://projectmultatuli.org/perempuan-obi-bertahan-di-tengah-gusuran-industri-nikel-torang-dibuat-mati-perlahan-lahan/>
- Setyowati, A. B. (2020). *Mitigating Energy Poverty: Mobilizing Climate Finance to Manage the Energy Trilemma in Indonesia*. *Sustainability*, 12(4), 1603. <https://doi.org/10.3390/su12041603>
- The PRAKARSA. (2023). *Indeks Kemiskinan Multidimensi Indonesia 2012–2021* (p. 63).
- Theodora, A., & Yunus, S. R. (2023, July 21). *Kemiskinan Naik di Sentra Pengolahan Nikel, Efek Ganda Hilirisasi Belum Optimal*. <https://www.kompas.id/baca/english/2023/07/20/kemiskinan-naik-di-sentra-pengolahan-nikel-efek-ganda-hilirisasi-belum-terasa>
- Tirto.id. (2021, July 12). *Halmahera dalam Cengkeraman Taipan Tambang Nikel & Pejabat Korup*. <https://tirto.id/halmahera-dalam-cengkeraman-taipan-tambang-nikel-pejabat-korup-ghDB>

### Managing Director:

Ah Maftuchan

The PRAKARSA Executive Director

### Written by:

- Eksanti Amalia Kusuma Wardhani
- Eka Afrina Djamhari

### Reviewed by:

Victoria Fanggidae

### Designed oleh:

Bambang Nurjaman

### PRAKARSA Policy Brief is

an independent policy analysis and recommendation about various critical issues related to development and welfare.



**P R A K A R S A**

Welfare Initiative for Better Societies

Jl. Rawa Bambu I Blok A No.8-E  
Pasar Minggu, Jakarta Selatan  
Indonesia 12520

Phone +6221 781 1798  
[perkumpulan@theprakarsa.org](mailto:perkumpulan@theprakarsa.org)

The PRAKARSA is an independent policy analysis and recommendation about various critical issues related to development and welfare.

Readers are allowed to quote or reproduce PRAKARSA Policy Brief by citing the original source, provided that it is not for commercial purpose. The opinion expressed are those of the authors and do not reflect the views of the institution.

[www.theprakarsa.org](http://www.theprakarsa.org)