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RESEARCH ARTICLE

Nickel Downstreaming in Indonesia's IWIP: Neo-Extractivism Perspective

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Abstract: This study investigates neo-extractivism within Indonesia's nickel downstreaming policy by examining the Weda Bay Industrial Park, or IWIP. Utilizing a qualitative single case study design, the research analyzes how state-led industrial strategies intersect with global energy transition demands and local socio-ecological conditions. The analysis applies Maristella Svampa's framework of neo-extractivism, encompassing the eco-territorial turn, the commodities consensus and developmentalist illusion, and new dependencies. The findings indicate that IWIP represents Indonesia's ambition to move from a raw material exporter to a strategic processing hub, yet one must acknowledge that this transformation is established through ecological degradation, the dispossession of indigenous communities, and persistent inequality. Specifically, the study shows that rapid economic growth in North Maluku failed to improve household welfare, which effectively confirms the presence of a developmentalist illusion. Furthermore, the analysis reveals that this downstreaming paradigm entrenches an asymmetric dimension of new dependencies, structurally subordinating Indonesia within global economic hierarchies due to its heavy reliance on Chinese capital, patented smelting technologies, and restrictive offtake agreements. Consequently, the research concludes that IWIP illustrates the inherent contradictions of neo-extractivism, which underscores the necessity for a radical reorientation toward development models that are socially and ecologically just.

Keywords: Neo-extractivism, Nickel Downstreaming, IWIP, Energy Transition

1. Introduction

The worldwide transition towards low-carbon energy has reconstructed the flow of international political economic. One of the key factor that has caused this situation came from the ambition of the international community to align their system with renewable technologies – such as electric vehicles, wind turbines, and solar panels – which has been part of the goals that have been set in the Paris Agreement (Slameršak et al., 2022). This transition exerts significant pressure on mineral supply chains, as the demand for mining products increases substantially compared to traditional energy systems reliant on fossil fuels (Hund et al., 2023). Because clean technologies necessitate a higher metal intensity per unit of energy produced, new dependencies on critical mineral supply chains have emerged (Kabeyi & Olanrewaju, 2022). Therefore, critical minerals have become central to national energy



security frameworks and global industrial strategies, reflecting their strategic importance in the contemporary global order.

Recent data illustrate the sharp rise in global demand for lithium, nickel, cobalt, and graphite, driven primarily by energy technologies such as EV batteries and energy storage. Nickel, in particular, has emerged as a critical mineral with a strong growth trajectory, propelled by the expansion of the electric vehicle sector. Under the Stated Policies Scenario (STEPS), nickel demand is projected to increase 1.7 times between 2024 and 2040, with the share of energy technologies rising from 17% to 42% of total demand. Under more ambitious scenarios such as the Announced Pledges Scenario (APS) or Net Zero Emissions (NZE), global nickel demand could exceed six million tons annually (IEA, 2025). This confirms that the acceleration of global e-mobility is highly dependent on nickel availability to sustain future energy storage capacity.

This surge in demand has intensified pressures to secure mineral supplies, pushing extraction boundaries into new territories in the Global South, often relegated to the role of raw material providers for global industrial centers (Arboleda, 2020). Such dynamics reinforce global value chains that place resource-rich countries in a crucial yet vulnerable position, while prompting governments to leverage their comparative advantage through downstream policies aimed at enhancing value-added and competitiveness (Chagnon et al., 2022). In practice, however, intensified extraction is often justified as a strategic instrument to convert natural wealth into industrial capital, yet it generates tensions between national prosperity narratives and local socio-ecological realities (North & Grinspun, 2016).

From a sovereignty perspective, downstreaming represents an effort to reclaim state control over natural resources, ensuring they are no longer exported as primary commodities without added value (Gudynas, 2020). Nevertheless, the implementation of such policies reveals contradictions. While states succeed in attracting large-scale investments for industrial infrastructure, the equitable and sustainable distribution of economic benefits remains elusive. Instead, the expansion of extractive industries often transfers wealth accumulation to large industrial actors while imposing environmental and social risks on local communities (Gudynas, 2018; Veltmeyer & Bowles, 2018). This tension underscores that state control over markets does not automatically guarantee distributive justice, as rapid industrial expansion frequently outpaces environmental governance capacity, leading to ecological degradation and public health burdens.

The concept of neo-extractivism provides a critical lens to analyze these contradictions. Emerging from empirical studies in Latin America, neo-extractivism describes the active role of progressive governments in managing extraction, channeling revenues into social welfare programs, and reducing poverty (Burchardt & Dietz, 2014). Yet, scholars highlight that such strategies generate new dependencies on global commodity price fluctuations and fail to structurally transform national economies. Moreover, formalization of extractive industries often benefits large corporations rather than fostering inclusive domestic development (Camilo & Ranta, 2024; Rueda et al., 2023). While Latin American experiences dominate the literature, this regional concentration creates a bias that may not capture the dynamics of extraction in other governance contexts. Expanding research into Southeast Asia is therefore essential to identify variations that may diverge fundamentally from Latin American patterns.

Against this backdrop, Indonesia emerges as a strategic actor in Southeast Asia, holding more than 50% of global nickel production and 42% of global reserves (USGS, 2026). This dominant position grants Indonesia significant geopolitical leverage in shaping supply stability and influencing international nickel prices. To capitalize on this advantage, the Indonesian government has aggressively pursued downstreaming policies to transform its economic structure from raw material exporter to high-value manufacturing hub integrated into the global EV battery supply chain. A flagship manifestation of this ambition is the Indonesia Weda Bay Industrial Park (IWIP) in North Maluku, designated as a National Strategic Project under Presidential Regulation No. 18/2020. IWIP represents a concentrated

industrial ecosystem encompassing nickel mining, smelting, and processing into EV battery precursors, backed by \$10 billion in investments from Chinese firms Tsingshan, Huayou, and Zhenshi, alongside local partners ANTAM and Eramet (Saputra et al., 2023).

Since its operation in 2018, IWIP has generated massive economic impacts, with North Maluku recording world-leading growth rates exceeding 20% in several quarters (Nexus3 Foundation, 2025). Yet, this growth conceals complex contradictions between national industrial expansion and local socio-ecological realities, particularly in coastal and forest ecosystems of Halmahera. IWIP thus epitomizes Indonesia's industrial paradigm shift toward green energy through high-pressure acid leaching (HPAL) technology for EV battery components, while simultaneously raising questions about distributive justice and ecological integrity. Building on this background, the central research problem is that how does neo-extractivism manifest in Indonesia's nickel downstreaming policy at IWIP?

This research adopts the neo-extractivism framework as its analytical lens. Neo-extractivism emphasizes the active role of the state in resource governance, contrasting with neoliberal models that prioritize market liberalization. It highlights the paradox wherein state-led extraction, while reclaiming sovereignty and generating revenues, often perpetuates dependency on global commodity markets and reproduces social and ecological inequalities (Gudynas, 2020; Veltmeyer & Bowles, 2018). By situating Indonesia's IWIP within this framework, the study contributes to expanding the geographical scope of neo-extractivism discourse beyond Latin America, offering insights into how Southeast Asian contexts adapt and reinterpret extractive development models under the pressures of global energy transition.

2. Literature Review

This study employs the theoretical lens of neo-extractivism, an analytical category that emerged in Latin America in the early twenty-first century to describe a contemporary development model based on the intensive exploitation of natural resources. Unlike classical extractivism, which were characterized by minimal state involvement and dominance of transnational corporations, neo-extractivism emphasizes the active role of the state in resource governance, legitimizing extraction as a vehicle for national development and social redistribution (Gudynas, 2009; Svampa, 2019). This framework is particularly relevant to Indonesia's nickel downstreaming policy at IWIP, where state-led industrialization intersects with global energy transition demands and local socio-ecological realities.

While the origins of extractivism trace back to colonial plunder, where peripheral regions supplied unprocessed raw materials to metropolitan centers of nascent capitalism, its contemporary evolution has acquired distinct dynamics (Acosta, 2009; Araújo, 2014). Its defining features included large-scale resource extraction, export orientation, and minimal domestic processing, leaving resource-rich states dependent on global markets and vulnerable to price fluctuations. Eduardo Gudynas (2018) provides the baseline understanding of this shift by defining extractivism as a specific mode of appropriation rather than production. He argues that successive generations of extractivism have resulted in a predatory style of development that relies heavily on a scarcely diversified productive framework.

The neoliberal era, under the Washington Consensus, intensified extractivism through privatization and deregulation, widening social inequalities and eroding state sovereignty (Lang et al., 2012). The rise of progressive governments in Latin America during the Pink Tide marked a turning point, as leaders such as Hugo Chávez, Evo Morales, and Rafael Correa sought to reclaim state control over resources. This shift gave rise to neo-extractivism, distinguished by state intervention, rent capture, and redistribution through social programs (Gudynas, 2012).

Building upon Gudynas' foundational conceptualization of the mode of appropriation, Maristella Svampa expands the analysis by formulating a comprehensive framework that captures the political, territorial, and symbolic contradictions of this model. Svampa (2019)



defines neo-extractivism as a contemporary development model based on intensive exploitation of non-renewable resources to meet international market demands. Its hallmarks include massive production scales and expansion into previously marginal territories, export orientation with resource rents channeled into national development agendas, and state legitimization where governments justify extraction as essential for sovereignty and welfare. While neo-extractivism promises growth and redistribution, it also generates contradictions such as ecological degradation, social conflict, and new forms of dependency. These contradictions are captured in three analytical dimensions central to Svampa's framework that include eco-territorial turn, commodities consensus and developmentalist illusion, and new dependencies.

First, the eco-territorial turn highlights how global demand for nickel in the energy transition expands commodity frontiers, while at the national level the state legitimizes IWIP as a National Strategic Project, and at the local level territorial dispossession triggers new languages of resistance (Svampa, 2019). Second, the commodities consensus and developmentalist illusion explains how Indonesia frames downstreaming as the sole path to industrial progress, echoing the Latin American shift from the Washington Consensus to a commodity-based paradigm, yet concealing realities of *maldesarrollo*, which is characterized by high growth accompanied by ecological degradation and social inequality (Svampa, 2015b, 2019). Third, the dimension of new dependencies situates IWIP within asymmetric relations with Chinese capital and technology, where despite claims of sovereignty through value-added processing, Indonesia risks reinforcing dependence on transnational actors, echoing the Beijing Consensus dynamics (Svampa, 2019).

3. Research Method and Materials

This study adopts a qualitative approach with a single case study design, considered most effective for unpacking complex social phenomena within their natural context (Creswell & Poth, 2018). The nickel downstreaming policy at IWIP involves intricate interactions between global energy transition agendas, active state intervention through National Strategic Projects (PSN), and localized territorial impacts. A qualitative method allows the researcher to explore meanings and perspectives from multiple actors in depth, thereby revealing realities behind prosperity narratives. Consistent with the research question, which addresses how neo-extractivism occurs in IWIP, the case study approach is appropriate as it focuses on tracing contemporary events in real-life settings where the researcher has limited control over the phenomenon. Specifically, this design is categorized as a single instrumental case study, with IWIP in Central Halmahera during its operational period (2018–2025) selected as a bounded system to examine Svampa's theoretical dimensions of neo-extractivism.

For scope of the research, this research centers on IWIP, Central Halmahera, North Maluku, covering its initial operations and expansion amid rising global demand for critical minerals. IWIP exemplifies state-led intervention through its designation as a National Strategic Project (PSN) and represents a new commodity frontier integrating the full nickel supply chain. The study examines downstreaming not only as value-added policy but also as capital accumulation through territorial dispossession and dependency on transnational capital, highlighting contradictions between national prosperity narratives and local socio-ecological impacts.

Data collection in this single case study relies entirely on secondary sources, consistent with Robert K. Yin's framework (2018). Two primary sources are employed, that is documentation and archival records. Documentation involves gathering written and digital materials relevant to IWIP, including policy texts (e.g., Presidential Regulation No. 18/2020 on PSN), annual reports of PT IWIP, investigative reports from civil society organizations such as JATAM and Nexus3 Foundation, as well as academic articles and media coverage of social and environmental conflicts in Central Halmahera. Archival records provide structured quantitative and spatial data, such as export-import statistics from the Central Bureau of Statistics (BPS), mineral reserve data from the Ministry of Energy and Mineral Resources



(ESDM), regional economic growth figures from UNCTAD databases, and land cover maps. To ensure rigor, four principles are applied (Yin, 2018): (1) triangulation of government and NGO data, (2) systematic case study database organization, (3) clear chain of evidence linking theory to data, and (4) cautious use of digital grassroots sources, ensuring objectivity.

Furthermore, data analysis on this research follows Yin's strategy of relying on theoretical propositions, with Svampa's three dimensions, eco-territorial turn, commodities consensus & developmentalist illusion, and new dependencies, serving as guiding lenses (Yin, 2018). The technique of pattern matching is applied, comparing predicted theoretical patterns with empirical evidence from IWIP. Consistency between the two strengthens internal validity, allowing the study to conclude whether nickel downstreaming at IWIP manifests neo-extractivism through state dominance, dispossession, and dependency on transnational capital.

4. Results and Discussion

4.1. *Eco-territorial Turn*

The first dimension of neo-extractivism, the eco-territorial turn, highlights how resource extraction in the twenty-first century unfolds simultaneously across global, national, and local levels, producing new forms of dispossession and resistance (Svampa, 2019). This dimension is particularly relevant to Indonesia's nickel downstreaming policy at IWIP, where global demand for critical minerals, state-led industrial strategies, and local territorial conflicts converge to reshape socio-ecological landscapes.

At the global scale, the eco-territorial turn is driven by the expansion of commodity frontiers in response to the intensifying demand for critical minerals. The energy transition, while framed as a pathway toward decarbonization, has created unprecedented pressures on mineral supply chains. Data from the International Energy Agency (2025) show that demand for nickel is projected to rise 1.7 times by 2040, with clean energy technologies accounting for 42% of total consumption. Similar surges are observed for lithium, cobalt, and graphite, confirming that the metabolism of global capitalism has merely shifted from fossil fuels to mineral-intensive systems (Chagnon et al., 2022).

However, this shift does not alter the destructive logic of extraction; it only relocates it. Reports from S&P Global reveal a sharp decline in new nickel discoveries, with only four major deposits found in the past decade, amounting to just 3% of total discoveries since 1990. Between 2011 and 2022, new finds totaled only 14 million metric tons, or 10% of discoveries since 1991. This scarcity forces extractive regimes to intensify operations in existing deposits and expand into ecologically sensitive frontiers. Indonesia, with reserves of 62 million metric tons and projected production of 2.6 million metric tons in 2025, equivalent to 66% of global output, has become a focal point of this aggressive exploitation (USGS, 2026).

At the national level, the eco-territorial turn manifests through the transformation of Indonesia's resource governance. Historically, mining regulation was dominated by foreign investment under the Contract of Work (CoW) system, limiting state control (Devi & Prayogo, 2013). The post-1998 reforms, however, reasserted state authority through the principle of Hak Pengusahaan Negara (HPN), rooted in Article 33 of the 1945 Constitution, which mandates state control over land, water, and natural resources for the people's prosperity.

This principle materialized in the 2009 Mineral and Coal Mining Law, which introduced the Mining Business Permit (IUP) regime and mandated domestic value addition. Subsequent regulations, including PP No. 23/2010 and PP No. 24/2012, required mineral processing and divestment of foreign shares to domestic actors, culminating in the full export ban on raw nickel ore in January 2020 (Pemerintah Pusat, 2014; Wijaya & Sinclair, 2024). These measures

reflect a deliberate strategy of resource nationalism, aimed at repositioning Indonesia from a supplier of cheap raw materials to a hub of high-value industrial production.

IWIP embodies this transformation. Designated as a National Strategic Project (PSN), IWIP integrates mining, smelting, and processing into a single industrial ecosystem, attracting \$10 billion in foreign investment, primarily from Chinese firms such as Tsingshan, Huayou, and Zhenshi (Saputra et al., 2023). The state's active role in legitimizing and facilitating IWIP demonstrates how neo-extractivism differs from neoliberal models: rather than retreating, the state becomes a central actor, aligning with transnational capital to secure rents and industrial capacity. Yet, this alignment also reveals contradictions. While the state asserts sovereignty, it simultaneously deepens dependency on foreign capital and technology, raising questions about the authenticity of industrial autonomy.

At the territorial level, the eco-territorial turn is most visible in the spatial reconfiguration of Halmahera. IWIP's expansion has transformed 15,517 hectares into industrial zones, with plans to extend into Weda Timur through five aggressive development phases (Kementrian PPN/Bappenas, 2023). Land conversion has been extensive: between 2018 and 2023, built-up areas in Weda Tengah increased by 211%, driven by deforestation and reclamation of 111 hectares of coastal zones, including mangroves critical to ecological balance. Reports from JATAM (2024) confirm that 41% of Central Halmahera's territory, 95,736 hectares, has been appropriated by nickel companies, with 27.9 kilo hectares of forest cover lost between 2021 and 2023.

This spatial intensification directly impacts indigenous and agrarian communities. The Togutil (O'Hongana Manyawa) nomadic group faces encroachment on ancestral forests, while agrarian households lose productive trees such as sago, cocoa, and nutmeg to land clearance. Compensation rates, often between Rp 2,500 and Rp 9,000 per square meter, are far below the ecological and economic value of the land (Saputra et al., 2023). Moreover, land acquisition processes frequently bypass the principle of Free, Prior, and Informed Consent (FPIC), with coercion and intimidation reported by Climate Rights International (2024).

The designation of IWIP as a PSN exacerbates these dynamics by legitimizing rapid land acquisition and enabling state security apparatuses to suppress resistance. Protests are often criminalized under Strategic Lawsuits Against Public Participation (SLAPP), despite protections under Article 66 of the Environmental Protection and Management Law (UU PPLH, 2009). The Omnibus Law on Job Creation (UU No. 11/2020) further accelerates land acquisition by streamlining permits, effectively subordinating local rights to national development agendas (Climate Rights International, 2024).

These practices illustrate accumulation by dispossession, where land, forests, and coastal ecosystems are appropriated for industrial expansion, displacing traditional livelihoods and eroding agrarian sovereignty (Svampa, 2015b). The eco-territorial turn thus reveals the paradox of neo-extractivism: while framed as national progress, it produces localized marginalization and ecological degradation.

The eco-territorial turn is not only about dispossession but also about the emergence of new languages of resistance. In Halmahera, this resistance is no longer framed around financial compensation but around the defense of living space. Communities recognize that monetary payments are temporary, while ecological damage is permanent, threatening the survival of future generations. The emergent discourse emphasizes sovereignty over ecological elements: water sovereignty, asserting the non-negotiable right to clean and sustainable water systems; territorial sovereignty, defending autonomy over land against corporate intrusion; and the rights of nature, affirming that ecosystems themselves possess intrinsic rights to remain intact.

This language of resistance is concretized through grassroots mobilizations. The #SaveSagea movement, led by residents of Sagea Village, exemplifies this shift. Triggered by sediment pollution in the Sagea River and Boki Maruru Cave, the movement rejects compensatory



solutions and instead demands structural protection, including legal recognition of Boki Maruru as a National Geopark (FWI, 2023a). Their advocacy combines mass demonstrations, legal petitions, and community education through initiatives like the Fakawele Project, which provides environmental literacy and collective knowledge-building (FWI, 2023a). Despite systematic repression, including SLAPP lawsuits and the criminalization of activists such as Sulastri Mahmud and Rifya Rusdi, the movement articulates an existential struggle for water sovereignty, indigenous identity, and karst ecosystem integrity (Suprayogi, 2026). A parallel narrative emerges in the #SaveWatoWato campaign, organized by the Aliansi Masyarakat Buli Peduli Wato-Wato (FWI, 2023b). Sparked by manipulations of spatial planning that converted protected forests and water sources into mining zones, the movement frames Mount Wato-Wato as both an ecological fortress and a sacred space for the Maba and Buli peoples (Transparency International Indonesia, 2024). Resistance strategies range from direct action, such as physically removing heavy machinery, to national-level protests at the Ministry of Environment and Energy in Jakarta demanding the revocation of mining permits. Here, communities integrate customary law with modern environmental arguments, producing a counter-narrative that challenges corporate claims of sustainable mining.

The eco-territorial turn in Halmahera is further reinforced by the agency of women, who bear disproportionate burdens of extractivism due to gendered social roles in water provision, food security, and household management. As extractive expansion undermines agrarian livelihoods and clean water access, women face compounded vulnerabilities, often forced into precarious factory labor while continuing domestic responsibilities (Raha & Siscawati, 2026). Their resistance manifests not only in demonstrations but also in everyday coping mechanisms by maintaining food resilience, adapting community practices, and sustaining household economies amidst ecological collapse. This form of agency underscores that resistance is not limited to public protest but extends into the intimate sphere of survival and adaptation.

Finally, indigenous groups such as the O'Hongana Manyawa embody the eco-territorial turn by transforming from passive victims into active political subjects. Their nonviolent mobilizations assert customary law against state regulations that undermine their rights, rejecting exclusionary development models and tokenistic CSR programs. By reclaiming knowledge of the Akejira forest and resisting militarization, they demonstrate that eco-territorial consciousness permeates even the most marginalized communities (Husen & Nugraha, 2025).

Together, these movements illustrate how the eco-territorial turn in IWIP's territorial context produces a new grammar of resistance, one that transcends demands for compensation and instead asserts ecological sovereignty, indigenous identity, and rights of nature. This resistance challenges the developmentalist illusion by reframing extraction not as progress but as existential threat, thereby situating Halmahera within the broader global discourse of eco-territorial justice.

4.2. Commodities Consensus & Developmentalist Illusion

The intensification of extractive activities at IWIP, as discussed in the territorial dimension, originates from a broader transformation in Indonesia's national development paradigm in the early twenty-first century. The state has constructed a hegemonic narrative that positions large-scale nickel extraction in Weda Bay not merely as resource exploitation but as the primary engine driving Indonesia toward advanced industrial status. This narrative is justified through the commodities consensus, which evolved from the global economic transition that places strategic minerals at the core of high-tech energy industries. Unlike the Washington Consensus, which relied on market-driven structural adjustments, the commodities consensus grants greater space for state intervention, enabling governments to lead extraction and capture rents from surging international prices (Svampa, 2015a).



Figure 1. Economic Growth of North Maluku and Indonesia (2012–2024)

In North Maluku, the government has promoted IWIP's operations under the justification that domestic processing through integrated smelters would drastically increase economic value, create jobs, and distribute prosperity via a trickle-down effect. Statistical data appear to support this narrative. As shown in Figure 1, North Maluku's economic growth has consistently outpaced the national average since 2012, with sharp fluctuations beginning in 2017 as nickel downstreaming gained momentum. Following the 2020 export ban, regional GDP surged, peaking at 20.5% in 2022 and maintaining double-digit growth at 13.7% (CELIOS, 2025). Bank Indonesia confirmed record-breaking growth of 32.09% year-on-year in Q2 2025, the highest in Indonesia (Kurniawan, 2025). The industrial and processing sector contributed 24.65% of provincial GDP in 2024 (Aprillia et al., 2025).

At the district level, Central Halmahera, where IWIP operated, recorded extraordinary growth rates: 161.86% in 2021, 102.37% in 2022, and 42.41% in 2023 (BPS Kabupaten Halmahera Tengah, 2024). These figures were dominated by the processing industry (58.79%) and mining (32.23%), together accounting for over 91% of the local economy. Such numbers have been instrumental in constructing the illusion of development, presented as direct evidence of public welfare. The government reinforces this narrative with fiscal data, including tax revenues, export duties, and non-tax state revenues (PNBP), as well as export values rising from Rp 45 trillion to Rp 250 trillion (Kementerian Sekretariat Negara RI, 2025). IWIP's Rp 500 trillion investment commitments and claims of 81,000 jobs further bolster its portrayal as a new economic epicenter (Prihatani & Widyanti, 2026).



Figure 2. Household Consumption Growth in North Maluku and Indonesia (2012-2024)

Nonetheless, the reality on the ground diverges sharply from this statistical glorification. Household consumption data (Figure 2) reveal that North Maluku’s consumption growth remains modest, fluctuating between 4–5%, often below the national average, even as regional GDP soared into double digits (CELIOS, 2025). This disconnect demonstrates the absence of a meaningful trickle-down effect, confirming that extractive rents are captured by corporations and capital rather than distributed to local households.

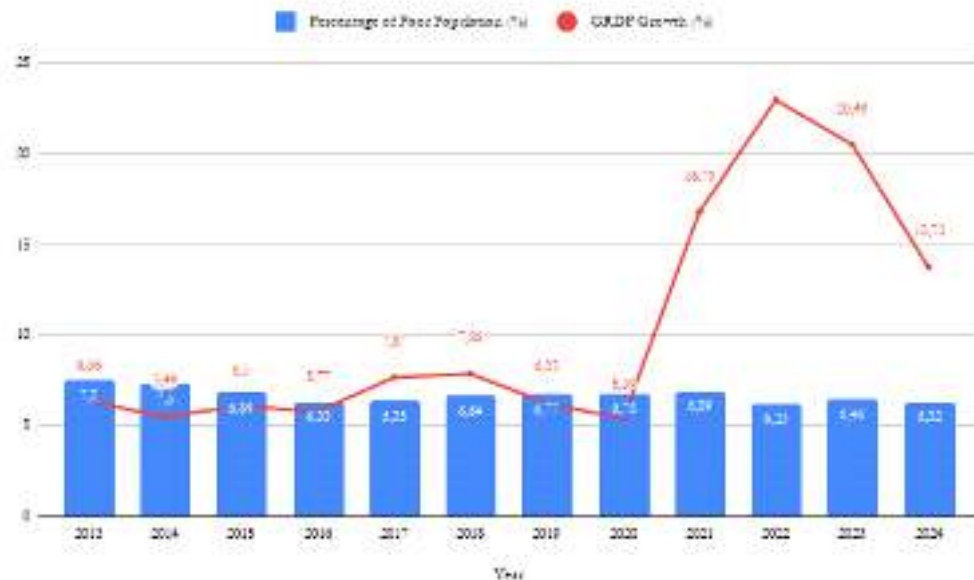


Figure 3. Comparison of Economic Growth and Poverty Rate in North Maluku (2012-2024)

Poverty statistics further expose this contradiction, as visualized in Figure 3, which illustrates the profound decoupling between macroeconomic prosperity and local welfare. Despite an extraordinary and unprecedented economic growth rate of 22.94% in 2024, driven almost entirely by the industrial metal boom, regional poverty rates remained stubbornly stagnant at 6% to 7% throughout the 2013 to 2024 period, with a rate of 6.23% recorded at the very peak of IWIP’s industrial expansion (CELIOS, 2025). This disconnect demonstrates that the

wealth generated by large-scale nickel processing does not trickle down to the local population, as the capital-intensive nature of the smelters fails to create broad-based economic opportunities for ordinary citizens. In Central Halmahera, the immediate host region of the industrial park, the reality is even more alarming as the poverty depth index worsened significantly, rising from 1.36 in 2022 to 1.80 in 2023 (BPS Kabupaten Halmahera Tengah, 2024). This index represents the second-highest poverty depth in the entire province and sits well above the Indonesian national average, directly indicating that poor households are being pushed further away from the poverty line while consumption gaps widen in the wake of industrialization.

These empirical findings strongly confirm Maristella Svampa’s notion of the developmentalist illusion, a political narrative where governments selectively use impressive macroeconomic indicators to equate statistical growth with genuine progress (Svampa, 2019). This illusion creates a spectacular facade of corporate and regional success while systematically masking the structural persistence of inequality, local inflation, and severe ecological degradation on the ground. The state relies on these aggregated gross domestic product figures to justify the expansion of extractive frontiers, ensuring that the everyday realities of stagnant local consumption, systemic dispossession, and deepening relative poverty remain politically obscured.

Consequently, the sharp contradiction between statistical prosperity and the lived realities of the community aligns perfectly with Svampa’s broader conceptual framework of *maldesarrollo*, or bad development. While nickel extraction and downstream processing generate monumental revenue and high-growth charts for national and transnational actors, this model simultaneously produces irreversible ecological destruction, acute social stratification, and a declining quality of life for the surrounding ecosystems and inhabitants. In North Maluku, this paradox is structurally unsustainable, as current aggressive extraction rates project the total depletion of the region’s nickel reserves within a mere 15 to 20 years, threatening to leave behind a permanent zone of sacrifice once the global commodity consensus shifts (CREA & CELIOS, 2024).

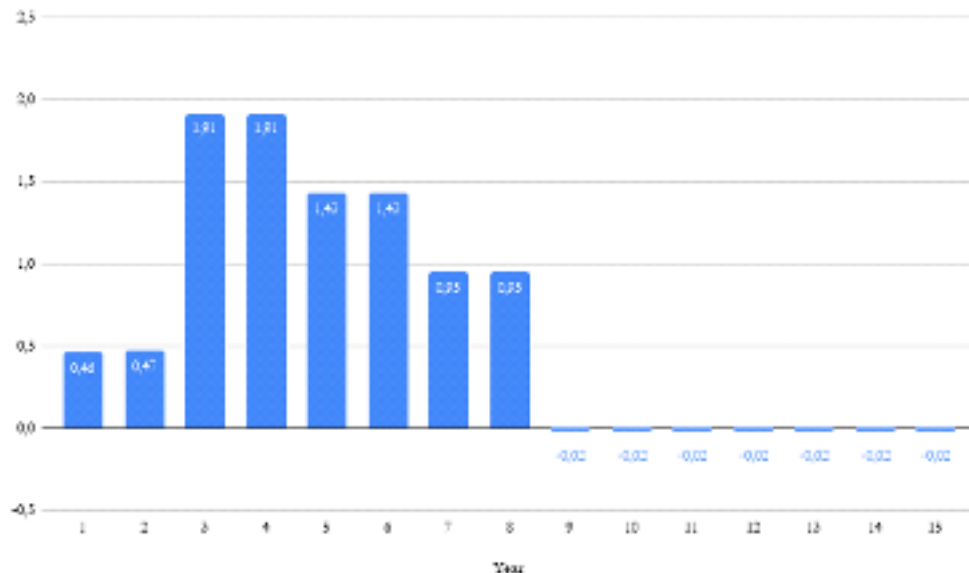


Figure 4. Impact of the Nickel Industry on North Maluku’s GRDP under the Business as Usual (BAU) Scenario

Business-as-Usual (BAU) projections (Figure 4) show that nickel’s positive contribution to GDP will last only eight years. From the ninth year onward, its impact turns negative, as resource depletion and ecological damage undermine productivity in other vital sectors.

Agriculture and fisheries are projected to lose Rp 202 billion in value-added, with farmers and fishers suffering income losses of Rp 28.4 billion due to smelter pollution contaminating water, degrading soil, and reducing catches (CREA & CELIOS, 2024). This trajectory exemplifies maldesarrollo, growth that appears robust in the short term but erodes long-term sustainability. The illusion of prosperity is thus revealed as a temporary boom, achieved at the expense of ecological integrity and social resilience.

4.3. *New Dependencies*

Maristella Svampa identifies new dependencies as the third dimension of neo-extractivism, highlighting how resource-rich states, while reclaiming sovereignty from Western powers, often become structurally dependent on new global actors, most notably China (Svampa, 2019). In this dimension, state-led extractivism, framed as a strategy of autonomy, paradoxically reproduces asymmetrical relations with transnational capital. Indonesia's nickel downstreaming policy, epitomized by IWIP, illustrates this paradox: while promoted as a pathway to industrial independence, it entrenches systemic reliance on foreign ownership, guaranteed offtake agreements, and external technological monopolies.

The ownership structure of IWIP reveals the depth of foreign dominance. The joint venture is led by Chinese firms Tsingshan, Huayou, and Zhenshi, with Tsingshan holding the controlling stake of 51.3% (Weda Bay Nickel, 2024). Although Eramet (France) retains 37.8% and PT Antam Tbk (Indonesia) holds 10%, Indonesia remains a minority shareholder, limiting its influence over strategic and operational decisions. This trajectory reflects a broader shift, while Western firms such as Eramet initially spearheaded nickel projects in Halmahera, control consolidated under Chinese capital after 2018.

The industrial ecosystem within IWIP further entrenches this dominance. Numerous Chinese firms, including Delong Nickel, Wanxiang Group, CNGR Advanced Material, YIEH Corp, and EVE Energy. This consortium operates alongside other multinationals such as BASF (Germany), POSCO (South Korea), and Nickel Industries (Australia) (Sangaji et al., 2023). This network demonstrates that the entire value chain, from mining and ore preparation to stainless steel and battery production, is driven by international capital, with Indonesia relegated to host territory. The state reinforces this arrangement by granting IWIP strategic designations: National Priority Project (Perpres No. 18/2020), National Vital Object (Keppres No. 63/2024), and National Strategic Project (Perpres No. 109/2020). These statuses guarantee political and legal protection, expedited land acquisition, and insulation from domestic opposition (Sangaji et al., 2023).

Dependency is further entrenched through offtake agreements, which bind IWIP's output to foreign buyers. Most nickel products, Nickel Pig Iron (NPI) and ferronickel, are contracted to parent companies or affiliates in China (Ramadhani & Paksi, 2025). These agreements ensure guaranteed absorption by Chinese downstream facilities, effectively monopolizing marketing channels. As a result, Indonesia's access to global markets is mediated externally, with pricing, quality standards, and value capture determined abroad.

This dynamic exemplifies industrial extraversion, where production occurs domestically while command functions such as market access, pricing, and technological standards remain external. Macroeconomic data confirm this dependency. In 2023, Indonesia exported a record 1.26 million tons of nickel worth USD 6.8 billion, but 1.12 million tons (89%) went directly to China (Moezbar & Hasan, 2026). Despite rhetoric positioning Indonesia as a hub for EV battery supply chains, 83% of nickel output still feeds the stainless steel sector, with only 17% entering EV battery production (Moezbar & Hasan, 2026).

Technological dependency compounds this asymmetry. Indonesia's reserves are dominated by laterite ores, historically considered costly and difficult to refine. China, however, has developed advanced processing technologies, particularly High-Pressure Acid Leaching (HPAL), enabling large-scale conversion of laterite into EV battery precursors. IWIP's adoption of HPAL, operated by firms such as Lygend Resources and Huayou Cobalt,

underscores Indonesia's reliance on foreign patents, equipment, and expertise (Sangadji & Ginting, 2023).

Indonesia lacks domestic patents or engineering capacity to independently process laterite ores. Consequently, IWIP's infrastructure depends on imported Chinese machinery and software. This reliance creates vulnerability to technological shifts. For instance, China's rapid transition toward nickel-free lithium iron phosphate (LFP) batteries, which now account for over 80% of its EV market due to lower costs and longer lifespans, leaves Indonesia locked into sunk investments in nickel infrastructure (IEA, 2022). Innovation trajectories are dictated by Chinese research centers, while Indonesia remains confined to upstream smelting with high ecological costs.

These dependencies place Indonesia in a structurally vulnerable position within the global political economy. China's dominance in financing, technology, and offtake agreements creates choke-point effects (Drezner et al., 2021). By controlling critical nodes in the EV battery supply chain, China can restrict or manipulate Indonesia's access to global markets. Such choke-points grant leverage to impose policy changes, exploit vulnerabilities, or block undesired actions.

For Indonesia, this means that national industrialization agendas are subordinated to Chinese industrial needs. Ambitions to move up the value chain into high-tech EV battery production are constrained by China's ability to enforce the status quo, keeping Indonesia focused on environmentally costly upstream smelting. The illusion of sovereignty, which is achieved through resource nationalism and downstreaming rhetoric, thus masks a deeper structural subordination.

5. Conclusion

This study concludes that Indonesia's economic transformation through nickel downstreaming at the Weda Bay Industrial Park (IWIP) represents a contradictory manifestation of neo-extractivism. While IWIP has repositioned Indonesia from a raw material exporter to a strategic processing hub in the global energy supply chain, this achievement rests on the fragile foundation of maldesarrollo or bad development. The state's dominant intervention, legitimized through its designation as a National Strategic Project (PSN), has facilitated global capital accumulation by dispossessing local living spaces, permanently degrading Halmahera's forest and coastal ecosystems, and systemically marginalizing indigenous rights.

The findings highlight how narratives of resource nationalism and economic sovereignty function as instruments of the developmentalist illusion. Macroeconomic growth in North Maluku, often celebrated as evidence of prosperity, does not translate into real welfare improvements at the grassroots level. Household consumption remains stagnant, poverty depth worsens, and ecological degradation undermines long-term sustainability. This illusion is further compounded by the emergence of new dependencies on Chinese capital and technology, which structurally subordinate Indonesia within global hierarchies. Despite claims of autonomy, strategic value addition remains externally controlled, locking Indonesia into environmentally costly upstream smelting while innovation trajectories are dictated abroad.

The implications of these findings are profound. First, they reveal that extractive-led development, even under the guise of downstreaming, risks reproducing dependency and inequality rather than achieving inclusive transformation. Second, they demonstrate that ecological and social costs are disproportionately borne by peripheral communities, raising urgent questions about distributive justice. Third, they underscore the fragility of Indonesia's industrial sovereignty, as reliance on foreign capital, technology, and offtake agreements exposes the nation to structural vulnerabilities and choke-point dynamics in the global EV battery supply chain. Finally, the emergence of eco-territorial resistance in Halmahera, through movements such as #SaveSagea and #SaveWatoWato, signals a critical



reorientation, where communities articulate new languages of resistance emphasizing water sovereignty, territorial autonomy, and rights of nature.

Based on these insights, targeted and context-specific recommendations are advanced to reform the existing downstream paradigm. The coordinate ministries overseeing maritime affairs, investment, and industry must abandon the output-oriented paradigm focused purely on gross domestic product numbers and explicitly integrate social justice indicators into industrial performance metrics. To halt the pervasive impacts of maldesarrollo, the Ministry of Environment and Forestry, along with regional environmental agencies in North Maluku, must mandate a comprehensive, independent carrying-capacity assessment of the Weda Bay ecosystem, while establishing real-time air and water quality monitoring stations directly downstream from IWIP smelters to curb heavy metal contamination. Furthermore, the administrative and often manipulative implementation of Free, Prior, and Informed Consent must be legally restructured; the North Maluku provincial government and the Central Halmahera regency must officially map and formally recognize the customary lands, or tanah ulayat, of the Sawai and Tobelo-Dalam indigenous peoples around the industrial concession to legally prevent further territorial encroachment.

To systematically address the asymmetry of new dependencies, the Ministry of Education, Culture, Research, and Technology should establish dedicated research funding lines in collaboration with local institutions like Universitas Khairun to develop domestic, patent-free high-pressure acid leaching technologies, thereby capturing midstream technology control from Chinese corporate actors. Economic diversification must also move beyond a theoretical objective; the regional planning development agency of North Maluku must design a post-mining transition roadmap funded by corporate social responsibility levies from IWIP tenants, focusing on reviving agricultural infrastructure for local spice production and revitalizing sustainable fisheries in the Molucca Sea before local nickel reserves are fully depleted within the next two decades. Finally, to ensure that the global green transition does not come at the expense of local democratic rights, the Indonesian Supreme Court and the National Commission on Human Rights must institutionalize a binding Anti-SLAPP regulatory framework specifically tailored for environmental defenders, thereby legally immunizing grassroots activists involved in the #SaveSagea and #SaveWatoWato movements from retaliatory criminalization when venting eco-territorial claims.

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