PRAKARSA Policy Brief

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Making Energy Transition More People Centered: Addressing Occupational Safety Crises, Worker Vulnerabilities, and GEDSI Inequalities in Indonesia's Nickel Industry

Key Messages:

- The nickel industry is facing a multidimensional crisis, characterized by widespread fatal workplace accidents and extreme working hours (*overwork*), weak gender safeguards and the women worker's exposure to violence in industrial zones, and carcinogenic waste pollution that damages coastal ecosystems and local livelihoods.
- The gap between international standards and national regulations, which have yet to fully integrate human rights due diligence, worker and community protection, and effective grievance mechanisms, underscores the importance of translating these standards into binding requirements for licensing and oversight of the nickel industry as a framework for social accountability.
- Strengthening regulations and oversight of the nickel industry must focus on enforcing occupational health and safety (OHS) through the chain of responsibility principle, safeguarding gender rights through Women Workers' Protection Centers (*Rumah Perlindungan Pekerja Perempuan or RP3*) and Sexual Violence Task Forces (*Satuan Tugas Tindak Pidana Kekerasan Seksual or Satgas TPKS*), prohibiting the disposal of tailings at sea, and allocating 50% of nickel royalties to a Just Transition Fund.



Occupational Safety Emergencies, Overwork, and Exploitative Industrial Relations

The high number of fatal workplace accidents in nickel industrial zones points to systemic failures in occupational health and safety (OHS) governance. This situation indicates that worker safety risks cannot be attributed solely to individual negligence (human error), but must also be examined in relation to the effectiveness of regulatory oversight, compliance with OHS standards, and operational management practices. Independent monitoring records documented at least 104 workplace accidents resulting in 107 fatalities between 2019 and 2025 (Prihatini & Jatmiko, 2025). Investigations by the media and civil society organization, Transformasi untuk Keadilan (TuK Indonesia), have also revealed instances of facilities and equipment being operated before meeting the required safety eligibility standards, a practice encapsulated in the phrase "use first, accidents later" (TuK Indonesia, 2025). In an effort to reduce operational downtime, smelter facilities and heavy equipment continue to be operated despite lacking adequate OHS certification.

Worker safety risks in nickel industrial zones are also associated with extended working hours, reportedly reaching 11–12 hours per day (Tempo.co, 2023). Excessive working hours (overwork) can increase physical fatigue and reduce workers' alertness, potentially heightening the risk of workplace accidents and serious health complications, including sudden death. These conditions also create severe psychosocial pressures, contributing to reported cases of suicide in the major industrial zones of Weda Bay (IWIP) and Morowali (IMIP) (Sawal, 2026).

Worker vulnerability in nickel industrial zones is further shaped by employment arrangements and labour inspection mechanisms. The use of multi-layer subcontracting systems, including for core operations involving high safety risks, can complicate the allocation of responsibilities among different parties in fulfilling workers' rights and implementing occupational health and safety (OHS) standards. When workers raise concerns regarding workplace safety and the fulfilment of their labor rights, several reports have documented alleged retaliatory measures, ranging from unilateral transfers to hazardous work areas without retraining, termination of employment, and criminalization to trade union suppression (*union busting*). Such practices have been reported at PT Gunbuster Nickel Industry (GNI) and within the Indonesia Morowali Industrial Park (IMIP) (Adinda, 2023). In this context, the limited number and capacity of labor inspectors, including OHS inspectors at the regional level, may undermine the effectiveness of labor inspections and enforcement of workplace safety standards.

Table 1. Matrix of Key Determinants of the OHS Crisis and Exploitative Industrial Relations

No.	Key Determinants	Key Indicators and Actual Impacts on the Ground
1.	Excessive Working Hours and Overwork	Working hours of 11–12 hours per day contribute to extreme physical fatigue, sudden deaths in worker dormitories and workplaces, and mental health crises, including suicide.
2.	OHS Inspection and Certification Deficits	The limited availability of Ministry of Manpower OHS inspectors at the regional level creates a supervision void, while the practice of "use first, accidents later" remains prevalent, with machinery and heavy equipment operated without adequate maintenance.
3.	Psychosocial Pressures and Subcontracting Chains	An estimated 7–10% of workers experience severe stress due to excessive workloads; the use of multi-layer outsourcing arrangements in core business operations obscures accountability for ensuring labor protections.
4.	Unequal Employment Relations and Trade Union Repression	Foreign workers (TKA) reportedly face isolation and passport confiscation, while local workers experience pressure through unilateral transfers to hazardous work zones, termination of employment, trade union suppression (union busting), and criminalization.

Overlooked Gender Dimensions, Compounding Rights Violations, and GEDSI Inequalities

Environmental degradation and the social transformation accompanying the expansion of the nickel industry have gender-differentiated impacts and may exacerbate women's vulnerabilities, both within industrial zones and in surrounding communities. Within smelting facilities, narratives of inclusivity and symbolic branding (*pink-washing*), such as the promotion of purple crane operators or pink rangers, do not necessarily reflect the substantive fulfilment of women workers' rights (AEER, 2024). Field findings indicate barriers to accessing reproductive health rights, including menstrual leave and maternity leave. Women workers reportedly face the risk of incentive deductions and changes in job assignments when exercising these rights. Furthermore, inadequate separate sanitation facilities, the lack of lactation rooms, and the absence of personal protective equipment (PPE) designed to meet women's ergonomic needs may increase risks to maternal health and occupational safety (Lengaru.id, 2024).

The male-dominated workforce in nickel industrial zones is also an important factor in understanding unequal power relations and women's vulnerabilities in a male-dominated work environment. Employment data from PT Indonesia Morowali Industrial Park (IMIP) as of July 2026 recorded 97,427 workers, comprising 89,335 men and 8,092 women, meaning that women accounted for approximately 8.3% of the workforce. This gender imbalance must be considered alongside reports of discrimination, workplace intimidation, gender-based violence (GBV), and sexual harassment experienced by women workers and women in communities surrounding industrial zones. These issues are also linked to the availability of safe, independent, and accessible grievance mechanisms that protect complainants from threats or retaliatory actions (retaliation) (Yayasan Tanah Merdeka, 2024).

The environmental impacts of nickel industrial activities also have implications for women's living spaces and economic independence in coastal communities. The degradation of aquatic ecosystems, including the Sagea River and Weda Bay, threatens traditional livelihoods pursued by women, such as gathering marine resources in coastal areas and processing fish catches. Reduced access to clean water also increases the burden of meeting domestic and caregiving needs, responsibilities that are disproportionately borne by women as unpaid care work. At the same time, potential exposure to environmental contaminants, including heavy metals such as hexavalent chromium (Cr(VI)) and arsenic, raises concerns about public health, including reproductive health. Assessing these risks requires adequate environmental quality monitoring data and exposure studies.

From a GEDSI perspective, the development of the nickel industry must also take into account the rights of Indigenous Peoples and persons with disabilities. The implementation of Free, Prior and Informed Consent (FPIC), must ensure the meaningful participation of Indigenous Peoples in decision-making processes affecting their territories, livelihoods, and rights, rather than being limited to information-sharing or procedural consultations.

Meanwhile, inadequate physical accessibility, support facilities, and inclusive employment opportunities may hinder the participation of persons with disabilities in economic activities within industrial zones. Both aspects underscore the importance of accounting for the diverse needs and experiences of affected groups in the planning and implementation of nickel industrial development.

Table 2. Dimensions of GEDSI Inequalities and Women's Rights Violations in the Nickel Industry

No.	Dimensions of Vulnerability	Key Indicators and Realities on the Ground
1.	Reproductive Rights and Sanitation	Administrative barriers to accessing menstrual and maternity leave, accompanied by the threat of incentive deductions; inadequate separate sanitation facilities and the absence of lactation rooms in smelting facilities.
2.	Gender-Based Violence	A *male-dominated industrial enclave* (11:1 gender ratio) contributes to heightened risks of harassment and sexual violence, compounded by the lack of safe and accessible grievance mechanisms.
3.	Economic Displacement and Unpaid Care Work	Marine pollution undermines the livelihoods of coastal women, including shellfish and *meti* gatherers; the clean water crisis increases the burden of unpaid domestic work.
4.	Exclusion of Indigenous Peoples and Persons with Disabilities	FPIC/PADIATAPA is reduced to one-way, perfunctory consultations; persons with disabilities face systemic exclusion from accessible infrastructure and inclusive employment opportunities.

Coastal Livelihood Crises, Toxicity Risks, and Distributive Inequalities

The accelerated expansion of the nickel industry poses challenges in the distribution of economic benefits and socio-ecological burdens, particularly for workers and communities living in and around industrial zones. Workers who have acquired disabilities as a result of workplace accidents, local workers facing termination of employment or unilateral job transfers, and coastal women who have lost their sources of livelihood due to environmental degradation all face the risk of prolonged economic vulnerability. In Weda Bay and areas surrounding the Sagea River, declining aquatic ecosystem quality and limited access to clean water have also raised concerns about the sustainability of local livelihoods. Sarianto et al. (2016) reported a decline in fisheries exports of up to 30%, while juvenile fish accounted for 90–96% of total catches. These findings should be interpreted in the context of the specific locations and research period, but they underscore the importance of monitoring fisheries resources and their implications for the economic sustainability of small-scale fishers and women involved in seafood processing.

Changes in environmental quality in areas surrounding industrial zones may also exacerbate the burden of unpaid domestic and care work (*unpaid care work*), which is disproportionately borne by women. When natural water sources can no longer be relied upon to meet household needs, women may have to spend more time and effort securing adequate supplies of clean water. This situation can reduce the time available for productive economic activities, education, and social participation. Furthermore, potential exposure to environmental contaminants, including hexavalent chromium [Cr(VI)] and arsenic, raises concerns about public health risks, including reproductive health and long-term health impacts (Nexus 3 & Universitas Tadulako, 2025; Universitas Gadjah Mada, 2017).

Assessments of exposure levels and health risks in affected areas should be based on water quality testing, identification of pollution sources, and relevant health studies.

These issues are closely linked to the challenges of achieving distributive justice in nickel decarbonization and downstream processing policies. While industrial development has the potential to generate economic value added and state revenue, these benefits must be accompanied by equitable distribution and adequate recovery support for communities bearing the social and environmental costs. Without effective mechanisms to allocate resources to affected areas, the costs of environmental remediation, healthcare, and livelihood recovery risk remaining the burden of workers and local communities. In this context, the establishment of a dedicated funding mechanism (*earmarked fund*), sourced from a portion of state revenues generated by the nickel industry, could be considered to support public health recovery, rehabilitation and retraining for affected workers, livelihood restoration, and the economic empowerment of coastal women.

Establishing a Social Accountability Framework for Critical Minerals Governance

Indonesia's current nickel policy remains primarily focused on supply control and maximizing state revenue. This direction is reflected in restrictions on the development of new smelters under Government Regulation (PP) No. 28/2025, adjustments to Work Plan and Budget (RKAB) quotas, and the implementation of progressive royalties under PP No. 19/2025. However, these instruments do not yet explicitly incorporate social performance requirements. Meanwhile, existing protection frameworks remain fragmented across various regulatory instruments. Labor regulations require further implementing provisions, ILO Convention No. 190 has yet to be ratified, and the National Strategy on Business and Human Rights (Stranas BHR), established under Presidential Regulation No. 60/2023, continues to function primarily as a policy guideline.

Voluntary standards such as the Initiative for Responsible Mining Assurance (IRMA) offer an assessment mechanism comprising more than 400 requirements and public audit reporting (IRMA, 2023; 2025). However, corporate participation remains limited, and the final assessment results for Harita Nickel and Vale Indonesia have yet to be published (IRMA, 2026, n.d.). The credibility of this process also depends on ensuring that community participation takes place free from intimidation (Moore, 2026).

International standards must be translated into national regulatory and state oversight instruments. Human rights due diligence (HRDD) must extend to contractor supply chains and be supported by effective grievance mechanisms in accordance with Principle 31 of the UN Guiding Principles on Business and Human Rights (UNGPs) (UN Human Rights Council, 2011). The IFC Performance Standards can serve as a reference, particularly PS2 on Labor and Working Conditions, PS4 on Community Health, Safety and Security, and PS7 on Indigenous Peoples and FPIC under specified circumstances (IFC, 2012).

This framework can be complemented by the Global Industry Standard on Tailings Management (GISTM) for tailings management (ICMM et al., 2020), and integrated into RKAB approvals, industrial estate licensing, and social criteria under the Indonesia Sustainable Finance Taxonomy (TKBI) for financing. Strengthening this framework is also relevant to ensuring supply chain readiness for international market due diligence requirements taking effect from 2027.

Policy Recommendations

Strengthening labor protections and socio-ecological recovery in nickel industrial zones does not necessarily require new legislation. The government can optimize its existing executive authority by strengthening operational standards, providing protection facilities, and allocating funding for on-the-ground recovery measures.

1. Ministry of Manpower

Issue a Minister of Manpower Regulation establishing strict limitations on and compliance audits of outsourcing practices in high-risk sectors. This regulation must establish the *chain of responsibility* principle, requiring parent companies and industrial estate operators to bear legal and financial responsibility for the implementation of OHS standards among vendor and subcontractor workers. The Ministry must also prohibit unilateral job transfers and employment termination as retaliatory measures against trade union activism (union busting). In addition, the Ministry must increase the allocation of independent OHS inspectors in major industrial zones (Morowali, Weda Bay, and Obi), halt expedited certification of facilities and machinery that have not undergone adequate safety testing, and impose operational suspension orders (stop-work orders) on smelter units where fatal workplace accidents (fatalities) have occurred.

2. Ministry of Women's Empowerment and Child Protection

Require all nickel industrial estate operators to implement the Guidelines for Women Workers' Protection Centres (*Rumah Perlindungan Pekerja Perempuan* or RP3) and establish independent Sexual Violence Task Forces (*Satuan Tugas Tindak Pidana Kekerasan Seksual* or Satgas TPKS) that are insulated from management intimidation. The Ministry must also push for the provision of standardised gender-responsive facilities, including adequate separate sanitation facilities and lactation rooms; ensure reproductive rights and equality, including menstrual and maternity leave without the threat of incentive deductions; and guarantee social safety nets for coastal women who have lost their livelihoods due to water pollution.

3. Ministry of Environment and Ministry of Finance

Prohibit the marine disposal of *tailings* through the Deep-Sea Tailings Placement (DSTP) scheme, designate mining-free zones in traditional fishing grounds, and allocate at least 50% of the reallocated share of nickel royalty revenues to a Social-Ecological Recovery Fund (*Just Transition Fund*). This funding must be specifically earmarked through an Ecological Fiscal Transfer (EFT) or Public Service Agency (BLU) mechanism to finance:

- Worker Rehabilitation and Reskilling: Equitable compensation, medical rehabilitation, and new vocational training for workers who have suffered OHS-related accidents, permanent disabilities, or unilateral termination of employment.
- Women's Economic Protection: Business capital assistance and livelihood transition programmes for coastal women affected by pollution, alongside the restoration of clean water facilities to reduce the burden of unpaid care work.
- Public Health Recovery: Free healthcare services specifically addressing acute respiratory infections (ARI) and reproductive health disorders associated with exposure to carcinogenic heavy metals, particularly hexavalent chromium (Cr(VI)), in communities surrounding industrial zones.

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