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ASEAN MINERALS

POLICY AND INVESTMENT GUIDEBOOK



ASEAN Minerals Policy and Investment Guidebook

The Association of Southeast Asian Nations (ASEAN) was established on 8 August 1967. The Member States of the Association are Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Timor-Leste, and Viet Nam.

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THE ASEAN SECRETARIAT
2026

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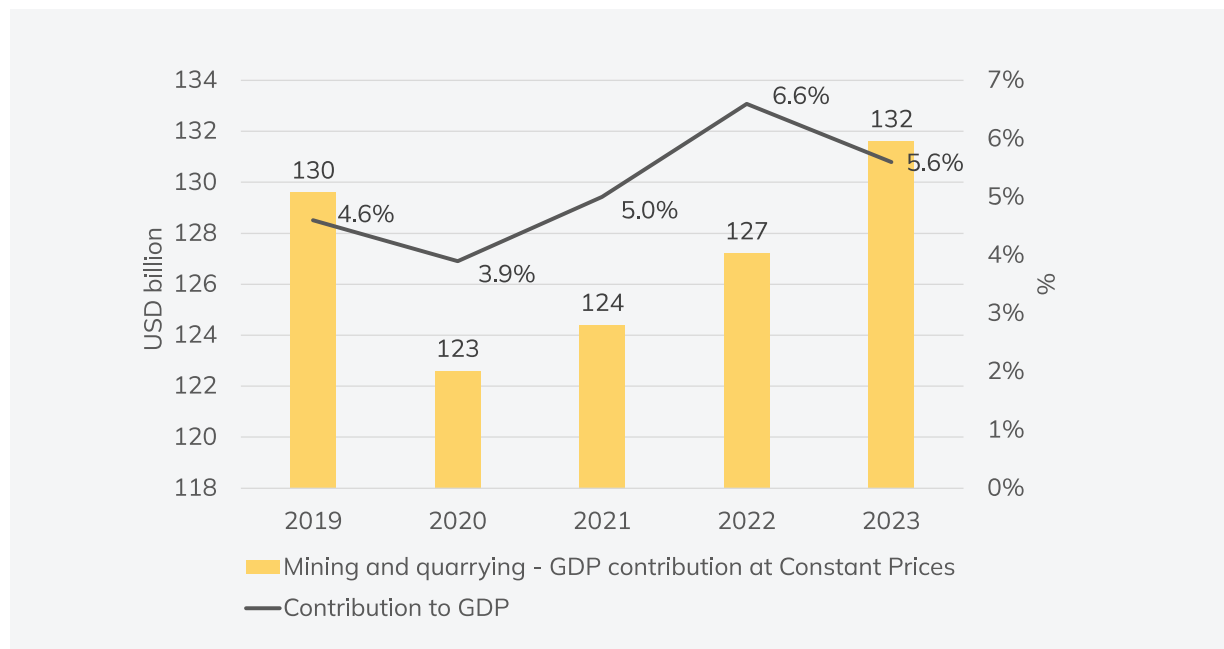
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INTRODUCTION

The mineral sector is a vital pillar of the ASEAN economy, directly contributing to economic growth and supporting industrial development as a key raw material source in strategic sectors, including electronics, automotive, construction, and machinery. The mining and quarrying sector directly contributed to nearly 6 percent of the region's GDP in 2023 (Figure 1), although its indirect impact is much greater given its role as an input into key downstream sectors. The sector includes both metals (e.g. nickel, tin, bauxite, rare earth elements) and non-metallic minerals (e.g. limestone, gypsum, potash), with the ASEAN region also positioned as a significant supplier in global value chains.

Figure 1: Minerals sector (mining and quarrying) contribution to ASEAN GDP



Source: ASEANstats, 2023

As ASEAN pursues sustainable growth and economic integration, its mineral sector remains essential in shaping strategies for long-term prosperity, technological progress and environmental stewardship across Southeast Asia. The abundance of mineral resources has attracted domestic, regional and international investment, leading to the development of processing plants, smelters, and value-added production lines. This, in turn, fosters job creation, technology transfer, and the growth of supporting industries like logistics and engineering services. The sector's integration into regional and global supply chains enhances ASEAN's competitiveness, enabling industries to meet growing demand in renewable energy, electric vehicles and other sectors, as well as environmental, social and governance (ESG) standards.

The ASEAN Economic Community Strategic Plan 2026–2030 emphasises the sustainable development of minerals and extractive industries as a key priority to drive economic growth while ensuring environmental stewardship and social responsibility. The series of ASEAN Minerals Cooperation Action Plans (AMCAP) that started in 2005 continues to serve as a framework for regional minerals cooperation, focusing on increasing trade and investment, fostering cooperation among member states and strengthening capacity for sustainable mineral development across the region.

The ASEAN minerals landscape stands at a crucial juncture as the ASEAN Minerals Development Vision (AMDV)—a 20-year vision for the future of ASEAN minerals cooperation—the ASEAN Minerals Cooperation Action Plan (AMCAP-IV, 2026–2030) and the ASEAN Principles on Sustainable Minerals Development (APSMO) were adopted in October 2025. These documents establish a framework for regional cooperation on minerals and a long-term view for investors and other stakeholders.

The development of the ASEAN regional framework on minerals is set against the backdrop of increasing national policy and regulatory reforms—including those related to permitting, taxation and royalties, incentives, environmental, social and governance (ESG) performance, as well as backwards and forwards integration with regional and global markets. Several ASEAN Member States are implementing reform measures to improve the investment environment and align with broader development goals through targeted regulatory actions focused on downstreaming and local value chain development. Coordinated regional cooperation will be essential in unlocking the full development potential of minerals. This includes stronger partnerships on trade and investment, capacity-building, research and innovation, harmonisation of standards, and more strategic efforts to deepen the value chain by leveraging ASEAN Member States' respective strengths and addressing their weaknesses.

ABOUT THIS GUIDEBOOK

The *ASEAN Minerals Policy and Investment Guidebook* aims to provide a regional and country-level overview of the geological potential, prevalent institutional structures, policy and regulatory frameworks, incentives and mechanisms influencing capital flows into the minerals sector. The regional overview is accompanied by country profiles that bring to the fore data and information relevant to the sector, covering exploration, production, processing, downstream linkages, and post-mining rehabilitation.



ASEAN REGIONAL OVERVIEW

The ASEAN mineral sector is vital to the region's economic growth, backed by rich resources and discovery prospects. ASEAN Member States such as Indonesia, Malaysia, Myanmar, the Philippines, Thailand, and Viet Nam are major global mineral producers, with essential resources including nickel, copper, tin, rare earth elements (REE), and bauxite. Lao PDR, Cambodia, and Thailand produce key non-metallic minerals such as limestone, gypsum, and potash. The sector is an essential part of ASEAN's industrial base and trade, making substantial contributions to the ASEAN Economic Community's aim of a more integrated regional economy (ASEAN Secretariat, 2021; Irawan, 2017).

The following section provides a snapshot of key metallic and non-metallic mineral distribution in ASEAN, as well as regional themes drawn from the consultation with ASEAN Member States and country profiles on investments, trade and policy landscape.

OVERVIEW OF KEY METALLIC AND NON-METALLIC MINERALS IN ASEAN MEMBER STATES

Table 1 presents a snapshot of key metallic and non-metallic mineral distribution in ASEAN Member States drawn from the data provided by the ASEAN Member States (as of August 2025), complemented by secondary sources.

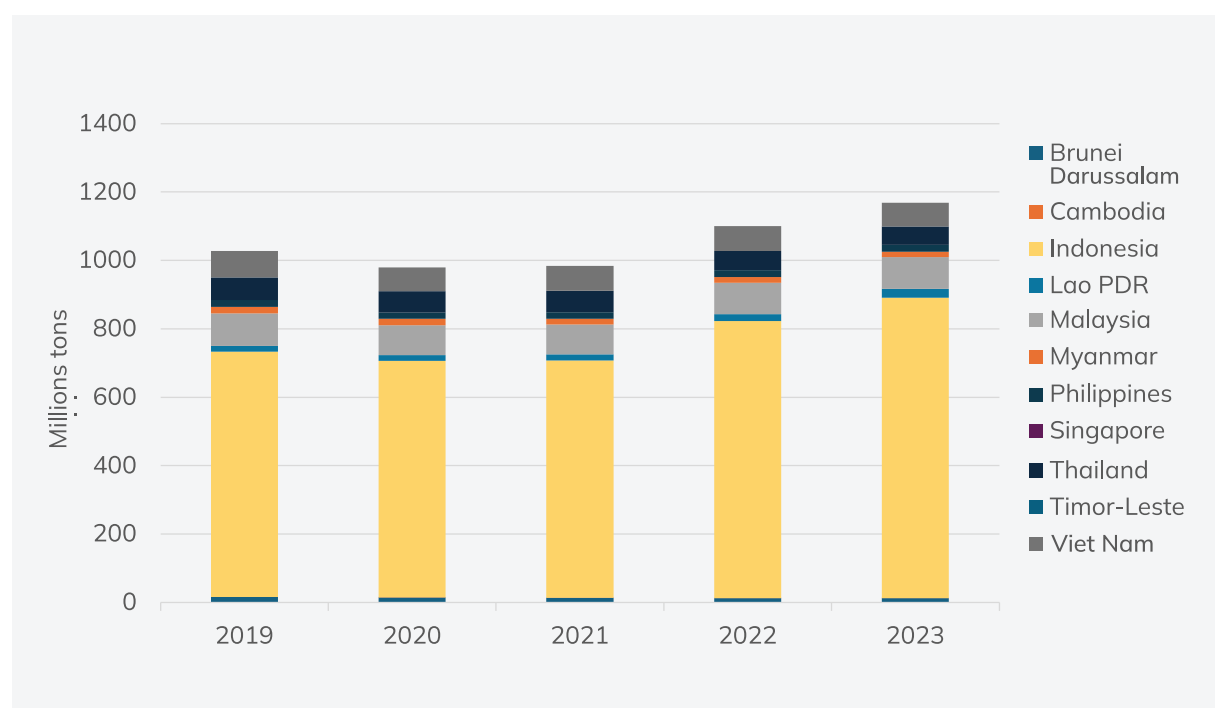
Table 1: Overview of known reserves of selected metallic and non-metallic minerals in ASEAN Member States

COUNTRY	METALLIC								NON-METALLIC		
	Nickel	Copper	Bauxite	Iron ore	Rare earth elements	Tin	Gold	Zinc	Limestone	Gypsum	Potash
Brunei Darussalam					✓				✓		
Cambodia		✓	✓	✓			✓		✓		
Indonesia	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Lao PDR		✓		✓		✓	✓				✓
Malaysia			✓	✓	✓	✓					
Myanmar	✓	✓		✓	✓	✓	✓	✓			
Philippines	✓	✓		✓			✓				
Thailand				✓	✓	✓			✓	✓	✓
Viet Nam		✓	✓	✓	✓	✓	✓	✓	✓		

Source: Austrian Federal Ministry of Finance, 2025 (World Mining Data)

The total production of mineral raw materials in ASEAN between 2019 and 2023 is depicted in Figure 2 below.¹ In volume terms, production levels have grown steadily post-2020, with cumulative total production having reached over 5 billion tonnes in 2023. Indonesia dominates the production in the region, accounting for 73.7 percent of the total volume output across the period.

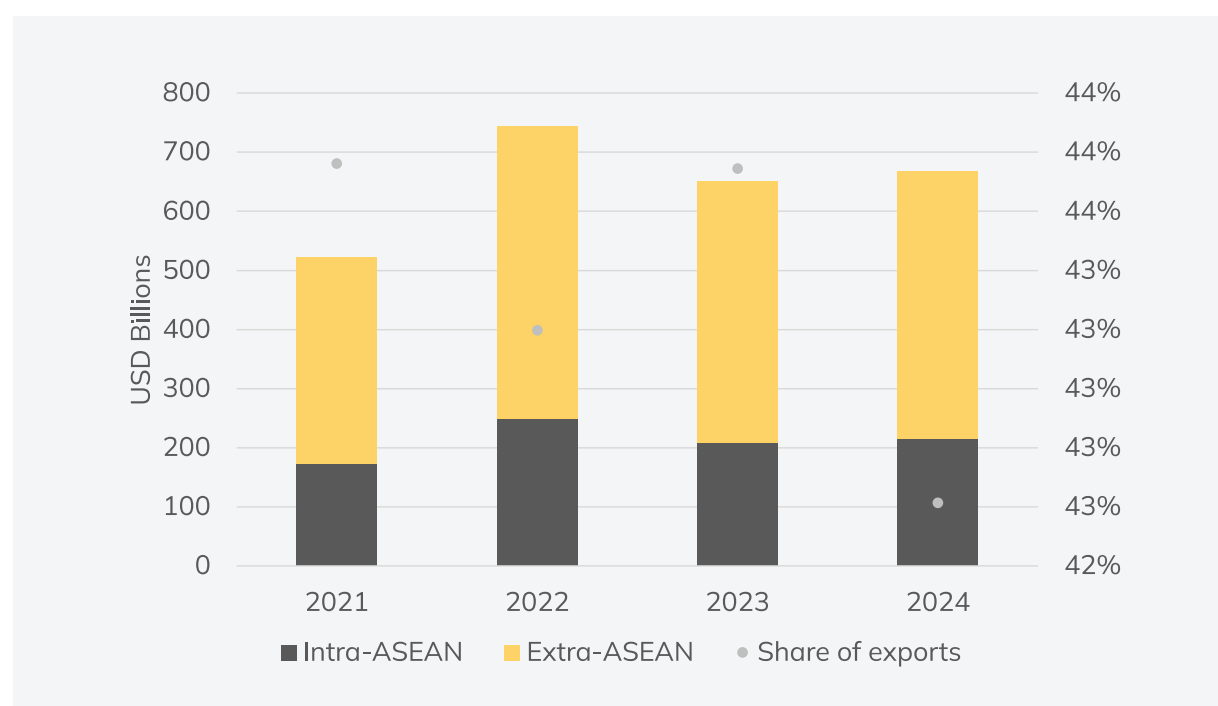
¹ These include metallic, non-metallic and energy minerals as reported in World Mining Data 2025.

Figure 2: ASEAN production of mineral raw materials 2019–2023

Source: Austrian Federal Ministry of Finance, 2025 (World Mining Data)

Indonesia and the Philippines lead globally in nickel, with a consistent upward trend thanks to battery mineral demand, especially for electric vehicles. Viet Nam, Thailand, and Malaysia are rising as strong rare earth elements (REEs) producers (U.S. Geological Survey, 2025), showing upward trend to support clean energy technologies. Malaysia remains stable in traditional minerals such as tin as well as Thailand for gypsum, though growth is modest. Myanmar's tin output remains high, despite some volatility in other metals. Lao PDR and Cambodia are smaller producers; Lao PDR's copper and gold, and Cambodia's gold, are the standouts, with recent steady or growing trends. Country-specific production trends are presented in each of the respective profiles.

The total value of trade in key minerals reached nearly USD 670 billion in 2024, with exports representing about 43 percent of total trade value (Figure 3). While intra-ASEAN trade is holding steady, extra-ASEAN trade accounts for the majority share. This highlights the extent of the region's integration into global supply chains, while also underlining the opportunity for greater regional collaboration to build value chains, localise job creation, and further strengthen ASEAN's position as a global manufacturing hub underpinned by access to minerals.

Figure 3: Value of trade in key minerals in the ASEAN region, 2021–2024

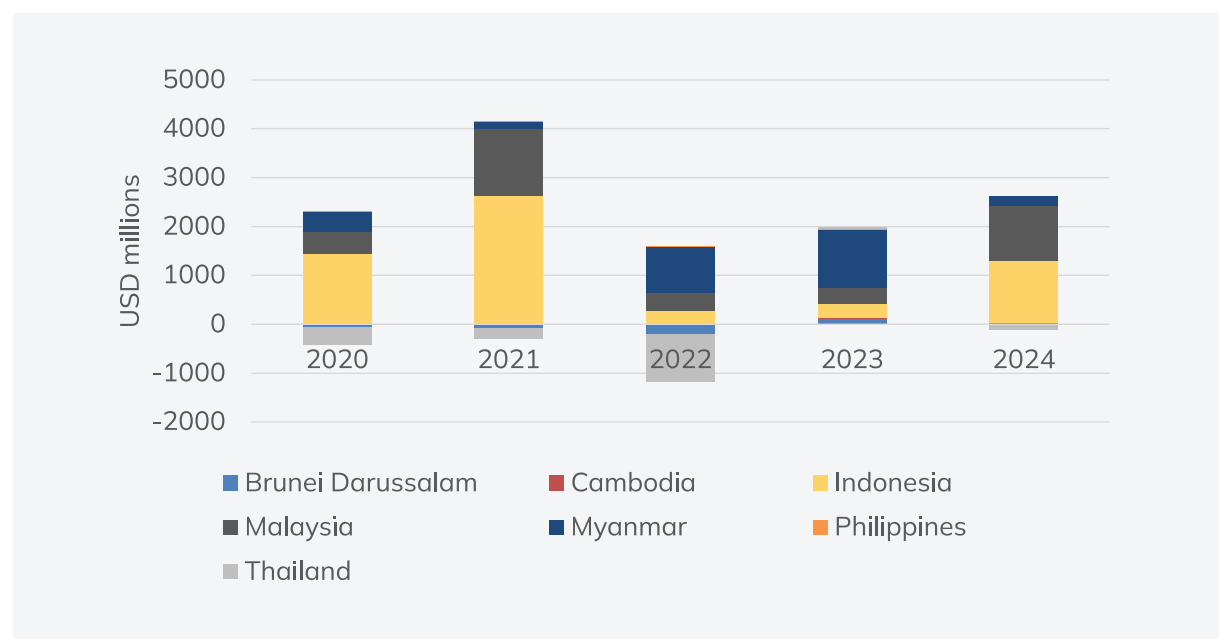
Source: ASEANstats ²

INVESTMENT TRENDS IN THE ASEAN MINING SECTOR

Investments in minerals in ASEAN are not yet keeping up with what is required for long-term resource development and security. ASEAN's mining foreign direct investment data in Figure 4 has been showing a downward trend since 2014, with a period of net outflows rather than inflows, although some signs of recovery have appeared in recent years. Between 2020 and 2024, over USD 10.6 billion in net inflows of foreign direct investment were recorded in the mining and quarrying sector in the ASEAN region. Inflows have marked a fluctuating trend during this period, peaking in 2021 at USD 3.8 billion and falling to USD 2.5 billion in 2024. In 2024, Indonesia attracted the largest share of investments (51 percent), followed by Malaysia (45 percent).

²This includes trade data for mineral fuels and oils (HS 27), precious stones and metals (HS 71), copper (ores, concentrates, unwrought) (HS 2603, 7402–7403), nickel (HS 7501), tin (HS 8001, 2609), bauxite and aluminium (HS 2606, 7601), zinc (HS 2608, 7901), iron ore and concentrates (HS 2601), lead (HS 2607, 7801), rare earth elements (REEs) and others (HS 2805, 2846, 2612), and non-metallic minerals, including gypsum (HS 2520), limestone (HS 2521) and kaolin (HS 2507).

Figure 4: Flows of inward foreign direct investment in mining and quarrying (in millions of USD), 2020–2024



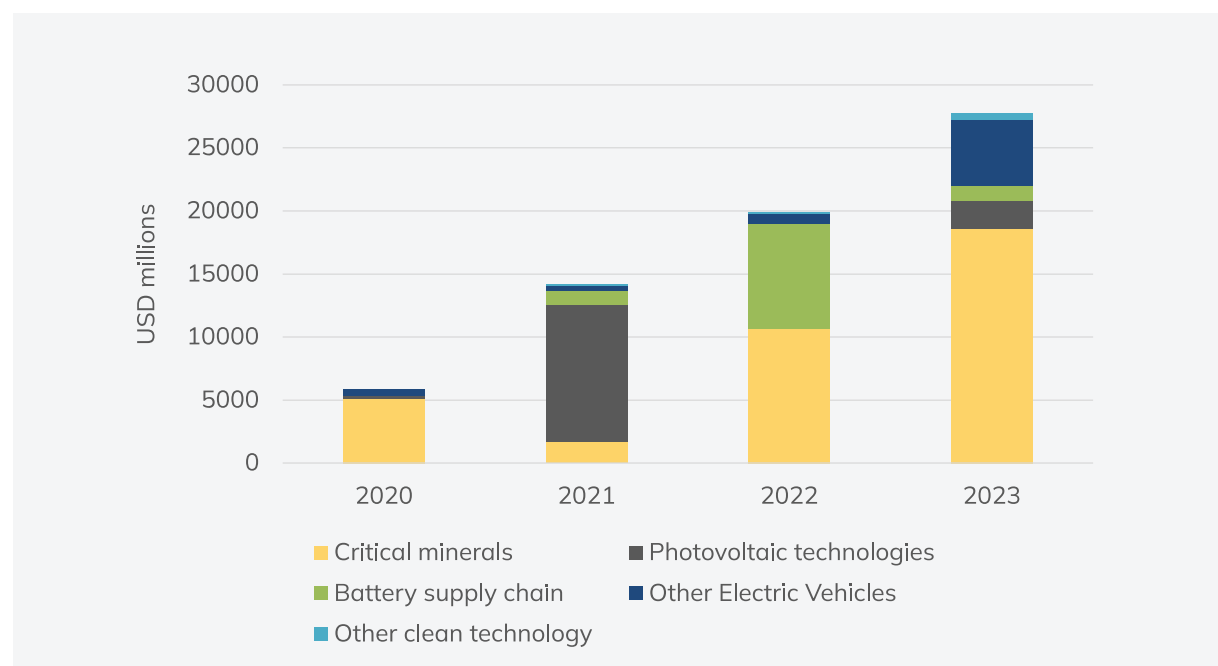
Source: ASEAN Statistics Division, 2025

Mineral exploration budgets in the ASEAN region have been declining in both absolute and globally relative terms in the past decade, especially in the grassroots/greenfield exploration stages, despite global growth in exploration expenditure (IISD, 2023). The decline of early-stage exploration investment, in particular, is concerning as it reduces the rate of discovery of new mineral resources, thereby limiting the ability of ASEAN Member States to seize emerging export opportunities and supply raw materials and metals to their own fastgrowing manufacturing and construction sectors. Several factors are contributing to the decline, including regulations, sustainability, and overall data availability (IISD, 2023).

Beyond exploration and mining, ASEAN Member States downstream efforts are resulting in strong investment inflows into emerging sectors, including renewable energy-related industries. As demand surges for minerals essential for energy transition technologies, such as nickel, copper, lithium, rare earth elements, and cobalt, among others, ASEAN Member States with substantial deposits are increasingly implementing policies to attract investments in local processing and refining, with upstream linkages to manufacturing.

As shown in Figure 5, between 2020 and 2023, industries related to renewable energy attracted over USD 67 billion in total investment, accounting for approximately 25 percent of all announced greenfield investment activities (UNCTAD, 2024). These industries include the extraction and processing of critical minerals, as well as the manufacture of renewables (e.g. batteries, EVs, and solar modules). International investment in the region's electric vehicle (EV) supply chain, from critical minerals mining to battery production, EV manufacturing, and infrastructure, reached USD 7.5 billion in 2023, up from USD 3 billion in 2021, although it fell from a peak of USD 15 billion in 2022.

Figure 5: Announced greenfield investment in renewable energy supply chains in ASEAN, 2020–2023



Source: UNCTAD, 2024

Public financing is needed at every stage of the minerals value chain—from exploration to processing and manufacturing—and involves a diverse mix of sources and instruments suited to each segment’s risks and capital requirements. ASEAN established the Minerals Trust Fund specifically to support cooperation programmes, projects and activities in the minerals sector throughout the region. This fund mobilises contributions from ASEAN member states and leverages support from dialogue partners and international organisations. Multilateral development banks (MDBs), such as the Asian Development Bank (ADB) and World Bank, are instrumental in financing and de-risking mineral projects through loans, guarantees, and advisory services that help align operations with environmental, social, and governance (ESG) standards.

EMERGING REGIONAL THEMES

As the region seeks to increase investments in the minerals sector and capitalise on the economic opportunities arising from the energy transition, several priority themes are emerging, building on the country profiles and consultation workshop with the ASEAN Member States undertaken in August 2025. These regional themes also align with the AMCAP-IV and ASEAN Principles for Sustainable Minerals Development (APSMD).

- **Investment in geological exploration and surveys in the region remains inadequate,** despite their vital role in mineral resource development. There is increasing awareness that boosting funding and enhancing the quality and accessibility of geoscience data

are crucial for attracting more exploration investments. Initiatives such as the ASEAN Minerals Exploration Strategy (AMEXS 2023) aim to improve the availability of geological information, update tenure data, and actively promote ASEAN's mineral potential to global investors through the ASEAN Minerals Information System (AMIS)³, thereby strengthening exploration activities.

- **Recognition of the importance of environmental, social and governance (ESG) standards in mining** is growing among ASEAN Member States in countries such as Cambodia, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Timor-Leste, through the enhancement of national policies and institutions that align with global standards. These initiatives include emphasising data transparency, social responsibility, and environmental safeguards. Integrating ESG into mining operations encourages sustainable development, boosts investor confidence and enables ASEAN Member States to meet international expectations for mining companies.
- **Critical energy transition minerals in ASEAN Member States**, such as nickel, copper, rare earth elements (REE), lithium, and others, are crucial for the green transition and are increasingly featured in policy development in ASEAN Member States, such as Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, and Viet Nam. These countries are increasingly aiming to leverage critical minerals to facilitate downstreaming and capture greater value from the global shift towards low-carbon economies.
- **Advancing circularity** can lower demand for primary minerals, reduce environmental impacts and enhance supply security for ASEAN industries. There is growing recognition that promoting recycling and circularity throughout the minerals value chain, from production waste (such as tailings) to end-of-life product recovery (such as batteries), can create a significant secondary supply of minerals, thereby decreasing reliance on primary mining and opening new economic opportunities for ASEAN Member States. To turn this potential into action, ASEAN Member States will need to establish coordinated policy frameworks, offer fiscal incentives, build institutional capacity and promote regional collaboration for knowledge sharing, technology transfer, and the adoption of circular business models.
- **ASEAN aims to promote consistent regional mineral policies and dialogue among its member states.** Countries are at different stages of mining development and have different policy priorities, such as downstream and value addition in Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam, greenfield projects development in Cambodia, Lao PDR, and Timor-Leste, trade and investment in Singapore, and boosting local content in almost all ASEAN Member States. The regional cooperation seeks to facilitate partnerships on research and development, capacity-building and investments, and align strategies to optimise the benefits from mineral resources, while respecting each country's unique circumstances and development objectives within the ASEAN framework.

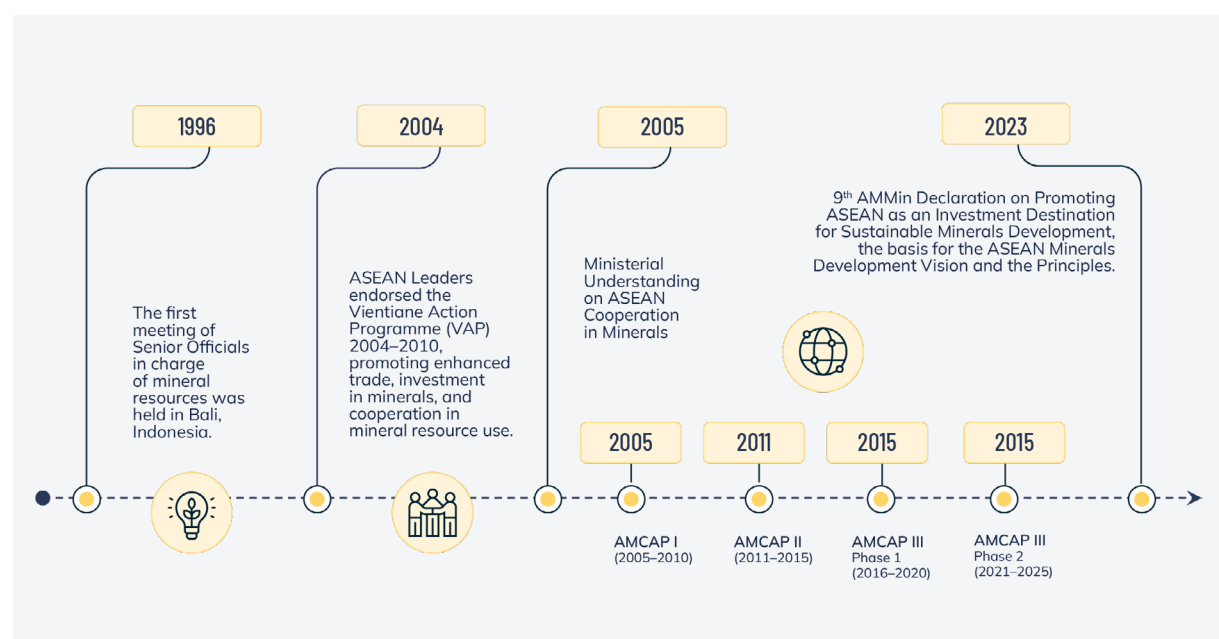
³The AMIS database is available at <https://amis.asean.org/>

REGIONAL COOPERATION AND IMPLEMENTATION

ASEAN Minerals Cooperation began in Bali, Indonesia, in 1996. It advanced through initiatives like the Vientiane Action Programme (2004–2010) and the first ASEAN Minerals Cooperation Action Plan (AMCAP-I, 2005–2010). After AMCAP-II (2011–2015), which aimed to enhance trade, investments, sustainability, and capacity-building, AMCAP-III (2016–2025) is being implemented in two phases. AMCAP-III seeks to cultivate a vibrant, competitive and sustainable mineral sector through improved trade, investment, public–private cooperation, responsible resource management, and capacity development in line with ASEAN Economic Community objectives. Figure 6 shows the timelines of the ASEAN Minerals cooperation.

The 9th ASEAN Ministerial Meeting on Minerals, held in Phnom Penh, Cambodia, in 2023, adopted the Declaration on Promoting ASEAN as an Investment Destination for Sustainable Minerals Development, and endorsed the ASEAN Minerals Exploration Strategy and the ASEAN Principles for Sustainable Minerals Development. It also directed the establishment of the ASEAN Minerals Development Vision to chart the progressive transformation of ASEAN into a regional investment destination, potentially contributing to diversifying global supply chains.

Figure 6: Timeline of regional cooperation on minerals and key milestones



Source: ASEAN Secretariat, n.d; Irawan, 2017

The ASEAN Minerals Cooperation Action Plan IV (AMCAP-IV) for 2026–2030 was adopted on 2 October 2025. It aims to support the ASEAN Economic Community beyond 2025 by promoting sustainable mineral development and resilient supply chains. The process started with stakeholder workshops, beginning in November 2024 in Jakarta, involving government, the private sector, and civil society, with the goal of positioning ASEAN as a global leader in sustainable minerals. The ASEAN Minerals Development Vision (AMDV) and AMCAP-IV were adopted at the ASEAN Ministerial Meeting on Minerals in October 2025.



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COUNTRY PROFILES

The ASEAN Member States are rich in mineral resources, supported by their complex geological formations. This section provides an overview of ASEAN Member States key mineral reserves and geological features, emphasising their unique mineral assets. It describes the current policies governing mineral exploration, extraction, processing and post-mining rehabilitation, the enabling environment for investment as well as key reforms and strategic outlook. The country profiles provide key insights into the evolving mineral industry, the investment environment, and the strategic priorities essential for the sustainable development of minerals in the ASEAN region.





COUNTRY PROFILE

BRUNEI DARUSSALAM

Brunei Darussalam's minerals sector is relatively limited compared to its dominant oil and gas industry, with mineral production mainly involving minor quantities of industrial and performance minerals rather than large-scale metallic mining. High-purity silica sand from Tutong District is Brunei Darussalam's flagship mineral opportunity. Rare earth elements (REE) remain exploratory, while limestone, gravel, and clay are present at small or industrial scales.

In recent years, the economy has been diversifying, and the non-oil and gas sector now accounts for over half of GDP, with the growing importance of downstream activities such as refining and petrochemicals (CSPS, 2025). According to the Department of Economic Planning and Statistics (DEPS), GDP from oil, gas and mining was about BND 1.88 billion in Q1 2025, down from BND 1.98 billion in Q4 2024. Brunei Darussalam is reviewing its fiscal regimes and exploring legal frameworks related to critical minerals, essential for the green transition.

KEY HIGHLIGHTS

- + **Mineral resources:** high-purity silica sand (from Tutong), limestone, rare earth elements (REE)
- + Tutong silica sand is suitable for float or solar glass, positioning the area as a potential downstream glass value chain
- + **Government priorities:** review fiscal regime and explore policies on critical minerals
- + **Recent successes:** streamlining systems and procedures, e.g. national digital ID, single sign-on system and Maritime Single Window
- + The mining and metal smelting sector accounted for 35 percent of foreign investment in 2024, equivalent to around USD 27 million

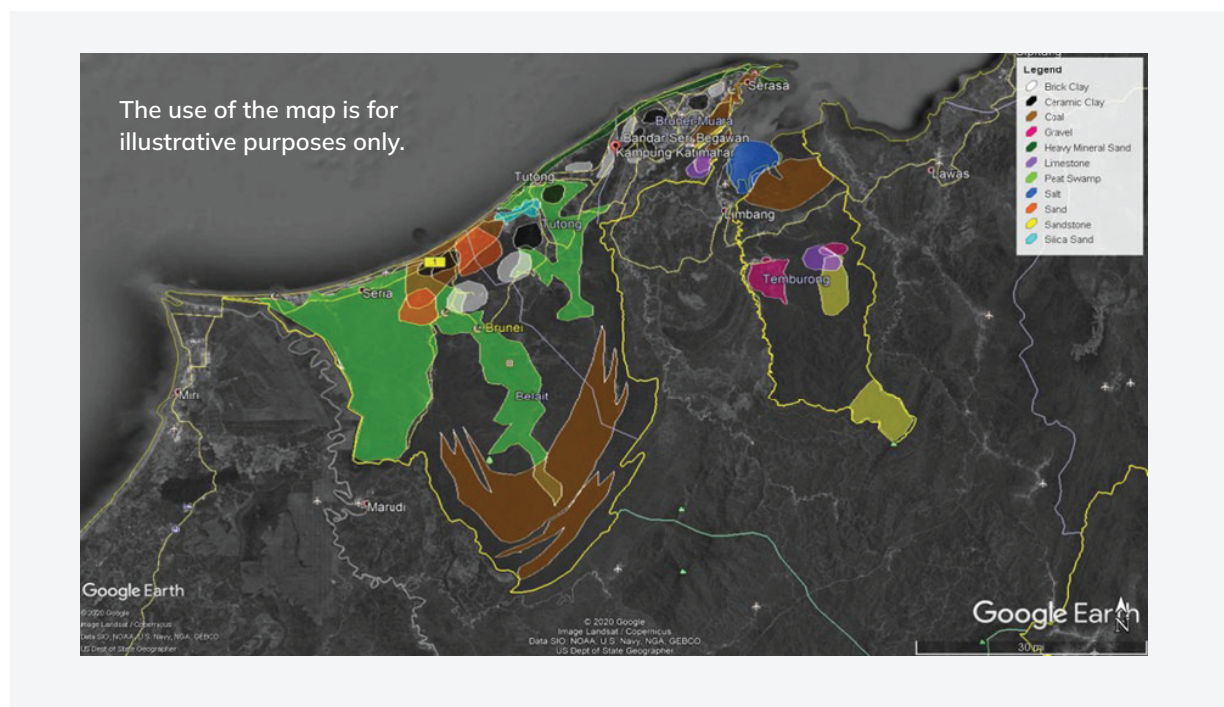
1 GEOLOGICAL CONTEXT

Government priorities emphasise economic diversification away from fossil fuels as part of the Wawasan Brunei 2035 national development plan, promoting sustainable growth by developing non-oil sectors and exploring future mineral value chains, including strategic moves related to industrial minerals and green technologies. Brunei Darussalam's mineral resources, managed by the Ministry of Development, include silica sand, construction materials, and halted coal operations.

GEOLOGICAL PROSPECTIVITY

Brunei Darussalam's geological prospectivity is defined by a series of Miocene–Pliocene sedimentary formations, including Setap Shale, Belait, Miri, Seria, and Liang, which collectively host significant hydrocarbon systems. The Belait Formation, synchronous with the Setap Shale, is characterised by thick sandstones and reef limestone, while the Miri and Seria Formations show alternating sandstones and shales with fossil-rich beds, indicating high organic content and depositional diversity (Osli et al., 2021). Moreover, Stefan Gödeke et al. (2025) confirmed their suitability for float glass production, positioning Tutong as a potential downstream glass value chain hub for solar glass, container glass, and electronics-grade silica. Another area, Temburong, known as Brunei Darussalam's least populated and most forested district, contains substantial gravel reserves, especially near riverbanks and upland areas (Visvanathan and Gödeke, 2022). Figure 1 shows Brunei Darussalam's mineral resource distribution.

Figure 1: Mineral resource distribution in Brunei Darussalam



Source: Ministry of Development, 2025

2 INSTITUTIONAL FRAMEWORK

The governance of Brunei Darussalam's minerals sector is structured through a coordinated framework involving several key government institutions, each with distinct roles in planning, regulation, licensing, oversight, and economic facilitation. Table 1 below summarises the diverse responsibilities of entities such as the Ministry of Development, the Ministry of Finance and Economy, the Department of Environment, Parks and Recreation (JASTRe), the Brunei Economic Development Board and the Auditor General's Office.

Table 1: Key institutions responsible for Brunei Darussalam's mineral governance

INSTITUTION	ROLE
Ministry of Development (MOD); Ministry of Finance and Economy (MoFE)	Planning and policy design
Ministry of Development (MOD); Department of Environment, Parks and Recreation (JASTRe) under MOD	Regulatory implementation, environmental permitting and oversight
Ministry of Development (MOD)	Licensing and permits
Brunei Economic Development Board (BEDB); Ministry of Finance and Economy (MoFE)	Investment facilitation
Ministry of Finance and Economy (MoFE)	Revenue management
Ministry of Finance and Economy (MoFE); Auditor General's Office	Audits and compliance

Source: Adapted from various sources

3 POLICY AND REGULATORY FRAMEWORK

The Mining Act (Chapter 42), originally enacted in 1920 and revised in 1984, governs Brunei Darussalam's mining sector and regulates the exploration and extraction of non-petroleum minerals—including gold, coal, and industrial minerals (Mining Act (Chapter 42), 1920). The Ministry of Development (MOD) acts as the primary regulatory authority, issuing prospecting and mining licences. At the same time, the Department of Environment, Parks and Recreation (JASTRe), under the MOD, oversees environmental compliance through pollution control guidelines and environmental impact assessments (EIAs). Investment facilitation and strategic development are managed by the Ministry of Finance and Economy (MoFE) and the Brunei Economic Development Board (BEDB), which encourage both domestic

and international participation in priority sectors such as mining, energy, and advanced manufacturing. The BEDB also supports infrastructure development and offers incentives under the Investment Incentives Act (1975). A list of relevant laws and policies is available in Appendix 1.

3.1. PERMITTING PROCESSES

Brunei Darussalam's mining licensing system is regulated by the Mining Act (Chapter 42), which provides the legal framework for non-petroleum mineral exploration and extraction. Under this Act, the government issues two main types of licence: the prospecting licence, which is short-term and permits initial exploration activities, and the mining lease, which is long-term, granted for up to 25 years (with a possible five-year extension), and which authorises full-scale mining operations. Mining leases in Brunei Darussalam are generally limited to 50 acres (approximately 20 hectares) for initial development.

Table 2: Categories of mining titles, relevant authorities and purpose

PERMIT TYPE	ISSUING AUTHORITY	PURPOSE
Prospecting licence	His Majesty the Sultan and Yang Di-Pertuan in Council	Issued to allow prospecting for minerals, including on lands alienated for purposes other than mining
Mining lease	His Majesty the Sultan and Yang Di-Pertuan in Council	Granted for actual mining operations, permitting mineral extraction

Source: Mining Act (Chapter 42), Laws of Brunei Darussalam



3.2. FINANCIAL AND FISCAL REGIME

Fiscal contributions are structured through corporate income tax, land lease payments and production-sharing agreements, particularly in the oil and gas sector. Brunei Darussalam imposes a standard corporate income tax rate of 18.5 percent on companies operating within the country, including those engaged in mining and mineral extraction. This rate applies uniformly across sectors, with no mining-specific surcharge or royalty system for solid minerals. The royalty system, however, is currently under review, and royalties are expected to vary by mineral type and processing status (export versus domestic).

FISCAL STABILITY AND INVESTMENT INCENTIVES

Brunei Darussalam does not currently publish formal stabilisation clauses or enter into publicly disclosed fiscal stability agreements for mining or extractive industries. To attract foreign direct investment (FDI), the government offers a range of tax incentives and exemptions, especially for industries aligned with its economic diversification goals under Wawasan Brunei 2035, including:

- tax holidays and exemptions for qualifying sectors such as manufacturing, technology and green industries
- capital investment deductions for machinery, research and development (R&D), and employee training
- no withholding tax on dividends paid to non-residents
- investment facilitation through the Brunei Economic Development Board and the Ministry of Finance and Economy

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Brunei Darussalam is actively promoting downstream value addition in its mineral sector, with a focus on high-purity silica sand found in Tutong District. Furthermore, as part of the Wawasan Brunei 2035 vision, the country aims to expand both downstream and economic clusters outside of the oil and gas sector. This includes support to expand local business development programmes by boosting opportunities for small and medium-sized enterprises (SMEs) (ASEAN Access, 2020).

LOCAL CONTENT AND EMPLOYMENT

Mining and quarrying represent a small share of total employment but are vital in areas like Tutong and Lumut, where mineral deposits are located. Brunei Darussalam promotes local employment and capacity-building through workforce development programmes and sectoral planning. While there are no formal foreign ownership caps in mining, the government encourages Bruneian participation in technical and operational roles. Over 69 percent of private sector employment is local, with mining and quarrying accounting for 4.7 percent in 2022 (DEPS, n.d.).

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental policies in Brunei Darussalam encompass key areas including environmental impact assessment (EIA), pollution control, waste, and hazardous substance management, biodiversity conservation, and climate change mitigation, all of which are governed by a suite of national laws and strategic policies. The country's environmental management framework is anchored in the Environmental Protection and Management Act 2016, which serves as Brunei Darussalam's core environmental legislation. This law mandates EIAs for prescribed activities such as mining, infrastructure, and industrial development, ensuring that environmental risks are assessed and mitigated before project approval. It also empowers environmental officers with enforcement authority and outlines penalties for non-compliance, reinforcing accountability across sectors.

Even with strong regulations in place, mining activities in Brunei Darussalam are relatively small in scale and mainly involve materials such as sand, gravel, and limestone. However, they still pose risks to sensitive ecosystems, especially in coastal and forested areas.

MINE CLOSURE AND POST-MINING TRANSITION

Brunei Darussalam's legal basis for mine closure is primarily governed by the Mining Act, which outlines the responsibilities of licensees regarding environmental restoration and site rehabilitation. Upon the expiration or termination of a mining licence, operators are required to remove all infrastructure, plug bores, fill excavations, and restore the land to its original state. In addition, the Environmental Protection and Management Act 2016 mandates that mining activities classified as "prescribed" must undergo EIAs that include closure and rehabilitation planning as part of the project approval process. Mine closure and rehabilitation plans, along with financial assurance, are being explored to align with regional best practices.

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Corporate social responsibility (CSR) practices in Brunei Darussalam are largely voluntary and vary significantly across companies. State-owned enterprises and larger firms tend to engage in CSR activities more visibly, while private and smaller operators often lack formal obligations, leading to inconsistencies in transparency and accountability. Brunei Darussalam's mining sector generally adopts CSR as a strategic tool for reputation management and stakeholder engagement, rather than as a regulated requirement.

CSR initiatives often focus on community welfare, including education, health services, and infrastructure support. However, alignment with local needs and environmental conditions remains a challenge, as CSR programmes are sometimes designed without adequate consultation or long-term planning (Stephanie, 2024).

There is growing recognition in Brunei Darussalam of the importance of social licence to operate, especially in extractive industries. Companies are increasingly expected to engage with communities, conduct impact assessments, and contribute to sustainable development. However, without a clear legal framework or standardised reporting mechanisms, CSR implementation remains uneven and difficult to evaluate across the sector.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Brunei Darussalam's mining sector operates within a centralised governance model, where community consultation and benefit-sharing are not explicitly mandated by law. While the Environmental Protection and Management Act 2016 requires EIAs for prescribed activities, it does not establish formal mechanisms for community participation or local benefit-sharing. This regulatory gap limits the ability of affected communities to influence decisions about land use, environmental risks, and development priorities.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Women make up approximately 40 percent of the national workforce, reflecting a relatively balanced gender participation rate compared with global averages. The World Bank's Women, Business and the Law Index gives Brunei Darussalam a score of 53.1 out of 100, significantly below the East Asia and Pacific regional average of 71.9. The country scores poorly on indicators related to workplace rights, parenthood protections, and equal pay. There are no legal provisions prohibiting gender discrimination in employment and no mandated equal remuneration for work of equal value (World Bank, 2021).

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Brunei Darussalam is not a participant in the Extractive Industries Transparency Initiative (EITI) and does not publish systematic reports on mining revenues, contracts or beneficial ownership. While the country has a legal framework for mining under the Mining Act (Chapter 42) and the Petroleum Mining Act (Chapter 44), public access to comprehensive mining data remains limited. Production and export statistics are available through the Department of Economic Planning and Statistics, but contractual terms, environmental impact assessments, and social agreements are not routinely disclosed.

Brunei Darussalam has made efforts to improve governance and integrity in the energy sector through initiatives like the Brunei Energy Industry Integrity Pact (BEIIP). This pact, supported by over 80 companies, promotes transparency in business practices, ethical compliance, and zero tolerance for corruption.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Brunei Darussalam has taken steps to align with international standards in governance and sustainability, though its mining sector remains relatively insulated from global ESG reporting requirements. Brunei Darussalam does not mandate ESG disclosures for public or private companies, including those in extractives. However, ESG principles are increasingly encouraged through regional cooperation and investor expectations, particularly in alignment with frameworks such as the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB). Internationally financed projects, such as those involving the International Finance Corporation (IFC), must comply with Environmental, Health and Safety (EHS) Guidelines.

Brunei Darussalam has ratified several international conventions, including key International Labour Organization (ILO) treaties on forced labour, child labour, and occupational safety. The country has also signed multiple bilateral investment treaties. Despite these commitments, enforcement of international standards within Brunei Darussalam remains limited, particularly in areas such as transparency, human rights and environmental protection, owing to centralised governance and restricted civic engagement. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

Brunei Darussalam is modernising its public administration and business environment by implementing a national digital ID and single sign-on system to make the process of accessing public services and applying for business licences easier. To improve efficiency, it has introduced a Maritime Single Window to speed up port procedures. In addition, the government is actively working to cut red tape and reduce licensing approval times, thereby improving the overall ease of doing business.

The country maintains a stable monarchical system supported by a legal framework rooted in English common law. Brunei Darussalam adheres to international legal norms and has put fair mechanisms in place for resolving commercial disputes, reinforcing investor confidence. It provides significant incentives to foreign investors, allowing 100 percent foreign ownership in many sectors and offering attractive tax benefits, such as the absence of personal income and capital gains taxes, along with a competitive corporate tax rate of 18.5 percent. Collaboration with development finance institutions, such as the Asian Development Bank, underpins ongoing infrastructure and financial sector development.

Brunei Darussalam's infrastructure and industry include modern road networks, increased capacity at Muara Port and over 20 industrial zones dedicated to manufacturing and processing. Essential utilities like electricity and water are supported by upgrades under the Twelfth National Development Plan (RKN12). While a national rail system has yet to be built, feasibility studies are under way. State-owned enterprises managed by Darussalam Assets oversee sectors such as oil and gas, telecoms and energy. Foreign investors are generally free to enter most sectors, though some government-linked projects require partnerships. The government promotes downstream industries through tax holidays, grants and incentives aimed at R&D, export growth and local employment.

5 REFORMS AND STRATEGIC OUTLOOK

Brunei Darussalam has initiated early-stage efforts to review royalty rates, introduce CSR obligations and explore legal frameworks related to critical minerals essential for the green transition.

At the same time, the gradual expansion of the Geology Unit under the Ministry of Development and enhanced inter-agency coordination, involving entities such as JASTRe and the Lands Department, are under way to strengthen permitting, monitoring and regulatory enforcement processes. However, Brunei Darussalam has yet to establish a dedicated mining-specific agency to provide comprehensive oversight of the sector.



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COUNTRY PROFILE

CAMBODIA

Cambodia has abundant geological resources, including promising deposits of gold, copper, iron ore, and bauxite, as well as industrial minerals like limestone and silica.

The mining sector contributes less than 1 percent of GDP, reflecting its underdeveloped status compared with neighbouring countries like Viet Nam or Laos. The sector's contribution to GDP reached approximately KHR 1,992.6 billion (USD 480 million) in 2023 and is projected to rise to KHR 2,132 billion (USD 514 million) by the end of 2025, reflecting its growing role in the national economy. The government is focusing on reforming its policies to attract investment in its underdeveloped mining sector and aims to position itself as a mid-tier player in the gold sector.

KEY HIGHLIGHTS

- + Mineral resources:** copper, bauxite, iron ore, gold, limestone, salt
- + Government priorities:** policy reforms guided by the National Policy on Mineral Resources 2018–2028; aiming to establish itself as a mid-tier ASEAN mining hub amid rising global commodity prices, particularly for gold
- + Recent successes:** first industrial-scale gold production at the Okvau mine, producing 1,400 kg of gold in its first year

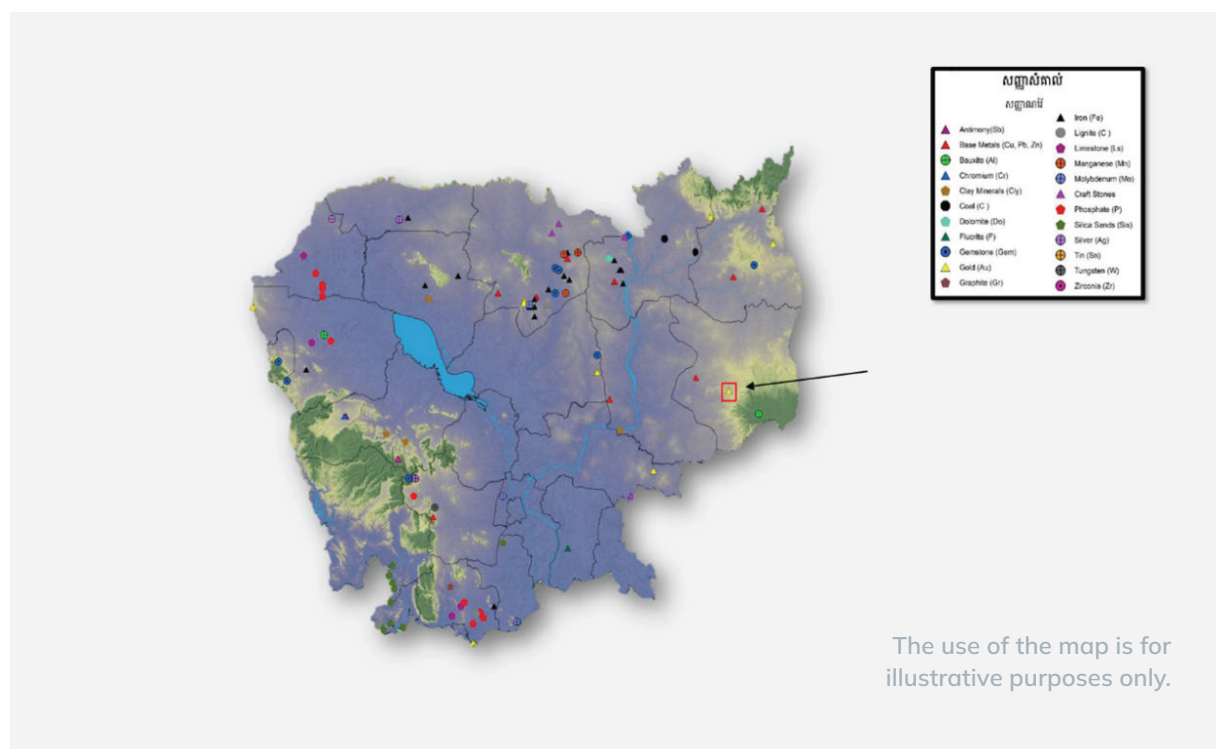
1 GEOLOGICAL CONTEXT

Cambodia is geologically rich, with promising deposits of gold, copper, iron ore, bauxite, and coal, and industrial minerals such as limestone, silica sand, and salt. However, the sector remains in its early stages of development, with most mining activities focused on construction materials and small-scale operations. In 2021, Cambodia began its first industrial-scale gold production at the Okvau mine, producing 1,400 kg of gold in its first year. The mine is expected to process 2 million tonnes of ore annually, yielding 3 tonnes of gold per year over an eight-year mine life (Moon, 2024).

GEOLOGICAL PROSPECTIVITY

Cambodia's mineral potential is mainly found along four major mineral belts: Truong Son, Loei, Dalat-Kratie, and Chanthaburi. These mineral belts host world-class copper, iron and gold deposits in Laos, Thailand, and Viet Nam. Although parts of these belts in Cambodia remain unexplored, some deposits like Okvau in Mondulkiri province have been discovered. The region shows promising prospects for similar deposits, including porphyry-related Cu(-Au) skarns, epithermal Au-Ag, and orogenic Au deposits. Figure 1 illustrates the distribution of mineral resources that have been identified in Cambodia.

Figure 1: Mineral resource distribution in Cambodia



Source: Ministry of Mines and Energy, 2025

2 INSTITUTIONAL FRAMEWORK

The mining sector is primarily regulated by the Ministry of Mines and Energy (MME), which oversees licensing, compliance, and sector development. Within MME, the General Department of Mineral Resources (GDMR) is responsible for geological surveys and technical oversight. The Council for the Development of Cambodia (CDC) plays a key role in approving industrial mining licences and foreign investment proposals. Environmental oversight is shared with the Ministry of Environment (MoE), which ensures that mining projects undergo proper environmental impact assessments (EIAs) and implement rehabilitation plans. Table 1 provides a summary of key institutions responsible for mineral governance in Cambodia.

Table 1: Overview of key institutions in Cambodia's mineral governance

INSTITUTION	ROLE
Ministry of Mines and Energy (MME)	Primary regulatory authority for mining; oversees licensing, compliance and sector development
General Department of Mineral Resources (GDMR)	Conducts geological surveys, manages mineral data and provides technical oversight for exploration and exploitation
Council for the Development of Cambodia (CDC)	Reviews and approves industrial mining licences and foreign investment proposals; ensures alignment with national development goals
Ministry of Environment (MoE)	Regulates environmental aspects of mining; reviews and approves environmental impact assessments (EIAs) and rehabilitation plans
Ministry of Economy and Finance (MEF)	Oversees revenue collection from mining activities, including royalties and non-tax income; supports fiscal policy and transparency
Subnational authorities (provincial and commune councils)	Facilitate community engagement, monitor local impacts and support implementation of artisanal and small-scale mining (ASM) and environmental safeguards

Source: Ministry of Mines and Energy, 2025

3 POLICY AND REGULATORY FRAMEWORK

Cambodia's mining sector is governed by a combination of laws, sub-decrees and strategic policies aimed at promoting sustainable development, attracting investment and ensuring environmental and social safeguards. The cornerstone of Cambodia's mining legislation is the Law on Mineral Resource Management and Exploitation (2001), which outlines the legal basis for the exploration, licensing and exploitation of mineral resources. This law is complemented by Sub-Decree No. 72 on the Management of Exploration and Industrial Mining Licences (2016), which provides detailed procedures for issuing mineral licences and emphasises transparency and public participation.

In 2019, the government endorsed the National Policy on Mineral Resources 2018–2028, a strategic roadmap that promotes sustainable mining practices, revenue optimisation, and community development. Additionally, the regulation on artisanal and small-scale mining (2015) formalises the licensing and regulation of small-scale mining operations, encouraging local participation and responsible practices. A list of relevant country-level laws and regulations is available in Appendix 1.

3.1 PERMITTING PROCESSES

Cambodia has reformed its mining licensing framework to improve transparency, legal certainty and investor confidence (Table 2). The country has transitioned from a contract-based system to a concession model, aligning with international best practices (Market Research Cambodia, 2024a). The permitting process is overseen by the Ministry of Mines and Energy (MME). It begins with the identification of available land for exploration, followed by a formal invitation for applications. An evaluation committee, appointed by the minister, assesses applications based on technical and financial criteria. Licences are awarded to the highest-scoring applicant. If two applicants score equally, the licence is granted on a first-come, first-served basis (Transparency International Cambodia, 2020).

Exploration licences are valid for three years, renewable twice for two years each time. Industrial mining licences require CDC approval before issuance and are subject to environmental and social impact assessments (ESIAs) (Information Series on Public Service of Ministry of Mines and Energy 2016, 2016; Proclamation No. 1451 on Mineral Licensing Procedures, 2015). As of Q1 2025, Cambodia had issued a total of 476 mineral resource licences across various categories. These included 66 exploration licences, distributed as follows: metallic minerals (53), coal (6), silica (5), and limestone (2). Most licences—380—were granted for pits and quarries, reflecting widespread small-scale extraction activities. In addition, 30 industrial mining licences were active, covering a range of commodities: gold (10), aluminium (1), iron (4), manganese (1), coal (2), cement (11), and silica sand (1).

Table 2: Types of mining licence based on scale and purpose of mineral resource development

LICENCE TYPE	VALIDITY PERIOD	PURPOSE	KEY NOTES
Prospection licence	6 months + 3 months extension	Initial survey of mineral potential	Earlstage reconnaissance
Exploration licence	3 years + 2 years + 2 years (includes feasibility study)	Detailed study and feasibility analysis	Required before industrial mining licence
Industrial mining licence	21 years + 10 years + 10 years (includes up to 5 years for construction)	Largescale extraction and processing	Requires CDC approval and full technical, financial and social analysis
Artisan mining licence	Varies by project	Smallscale mining with basic tools	Reserved for Cambodian nationals
Pits and quarries licence	2 years + renewable in 2-year increments	Extraction of construction materials	Most commonly issued licence
Gemstone mining licence	Varies by project	Mining of precious and semi-precious stones	Requires geological assessment
Mineral transforming licence	Varies by project	Processing and refining of minerals	Must meet facility and environmental standards

Source: Ministry of Mines and Energy, 2025

3.2 FINANCIAL AND FISCAL REGIME

Cambodia's mining fiscal regime is governed by the Law on Mineral Resource Management and Exploitation (2001) and further clarified through Inter-Ministerial Prakas No. 760 on Royalty Rates on Mineral Products and Royalties Payment Procedures (2020). The royalty regime aims to balance investor incentives with fair revenue generation for the state and communities.

TAXATION AND ROYALTIES

Mining companies in Cambodia pay a standard 30 percent rate of corporate income tax. Investors may qualify for tax holidays of up to five years, depending on the size of their investment and the sector's priority status. Moreover, mining equipment is exempt from

import duties in order to encourage capital investment. In addition, Cambodia does not require government equity in mining licences, thereby giving investors greater control.

Cambodia's royalty regime is defined under inter-ministerial decree (prakas) No. 760, jointly issued by MEF and MME. It includes both specific rates and ad valorem rates, depending on the mineral type and processing stage (Table 3).

Table 3: Minerals production royalty rates

MINERAL TYPE	ROYALTY TYPE	RATE
Gold	Ad valorem	3% of gross sales value
Bauxite, clay, silica sand	Specific	USD 0.15–USD 0.50 per tonne
Semiprecious stones	Ad valorem	5%–10% of gross sales value
Industrial minerals	Ad valorem	2%–5% of gross sales value
Crude oil and groundwater	Specific	USD 225.00 per unit (maximum)

Source: Inter-Ministerial Prakas No. 760 on Royalty Rates on Mineral Products and Royalties Payment Procedures, 2020

FISCAL STABILITY AND INVESTMENT INCENTIVES

Cambodia's mining sector allows 100 percent foreign ownership without requiring local equity, as long as the investment is registered under Cambodian law. Qualified investment projects are eligible for numerous incentives, such as a tax break of up to nine years or access to special depreciation options. Investors also enjoy complete import duty exemptions on construction materials, equipment and inputs for production, along with VAT exemptions for local production inputs. Furthermore, expenses related to research and development (R&D), innovation, training, employee welfare, and machinery upgrades qualify for a 150 percent tax deduction.

Cambodia has taken steps to improve its fiscal regime for mining, aiming to balance state revenue generation with investment attractiveness. The country offers a range of incentives under the Law on Investment of the Kingdom of Cambodia (2021) and Sub-Decree No. 139 on the Implementation of the Law on Investment of the Kingdom of Cambodia (2023), administered by CDC (Table 4).

Table 4: Overview of investment incentives

INCENTIVE TYPE	DETAILS
Corporate income tax (CIT) exemption	3 to 9 years, depending on investment category (high, medium- or low-tech)
Accelerated depreciation	Available for capital expenditure on mining equipment and infrastructure
Import duty exemption	On construction materials, equipment and production inputs for mining projects
Minimum tax exemption	Granted with an independent audit certification
Additional deductions	Between 150 and 200 percent for training, R&D and welfare for Cambodian workers

Source: Law on Investment of the Kingdom of Cambodia, 2021; Sub-Decree No. 139 on the Implementation of the Law on Investment of the Kingdom of Cambodia, 2023

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Cambodia's National Policy on Mineral Resources 2018–2028 emphasises the development of value-added industries through downstream processing. MME is actively promoting local refining of gold, copper, and industrial minerals, with several companies already operating or planning smelting and processing facilities. Cambodia is steadily advancing its mineral value chain by promoting downstream processing to boost domestic industrial capacity and reduce dependence on raw material exports. According to the U.S. Geological Survey, Cambodia produced approximately 1,400 kg of gold in 2021 from the Okvau project in Monduliri province, marking the country's first large-scale gold production (Moon, 2024).

LOCAL CONTENT AND EMPLOYMENT

Cambodia's mining policy encourages local employment and industrial participation, though formal mandates are still evolving. The Law on Mineral Resource Management and Exploitation (2001) requires that artisanal mining licences be issued only to Cambodian nationals, and industrial mining projects must include CSR plans that support local communities. As of 2024, the mining sector supports over 11,300 direct jobs nationwide, with major employment hubs in Kampong Speu, Monduliri, and Preah Vihear (Market Research Cambodia, 2024b).

Despite these efforts, Cambodia faces a significant skills gap in technical fields such as engineering, geology and mineral processing. According to the Cambodia Skills Development Roadmap 2023–2035 (2023), only 10.7 percent of the labour force holds medium- or high-level technical positions—far below regional peers like Viet Nam (19.1 percent) and Malaysia (29.4 percent).

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Cambodia's environmental governance in the mining sector is anchored in the Law on Environmental Protection and Natural Resource Management (1996) and the Law on Mineral Resource Management and Exploitation (2001). These laws require environmental and social impact assessments (ESIA) for all mining projects, overseen by MoE. The ESIA process includes public consultation and environmental licensing. Despite this framework, enforcement remains inconsistent.

MINE CLOSURE AND POST-MINING TRANSITION

Although Cambodia currently does not have a stand-alone law governing mine closure, progressive rehabilitation or post-mining land use, these responsibilities are indirectly addressed through the Law on Mineral Resource Management and Exploitation (2001). This law requires licence holders to uphold environmental responsibility and coordinate with the Ministry of Environment, and includes obligations to assess and mitigate environmental impacts—interpreted to encompass rehabilitation and restoration measures. Discussions are ongoing to align Cambodia's practices with international standards, such as those promoted by the Intergovernmental Forum on Mining, Minerals, Metals, and Sustainable Development (IGF) and the Asian Development Bank (ADB).

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Cambodia does not have a mandatory CSR law for mining companies. However, some companies, particularly those with foreign investment or international financing, voluntarily implement CSR programmes in areas such as education, health, infrastructure, and livelihoods.

One example is Angkor Resources Corp., which has implemented CSR initiatives in north-eastern Cambodia, particularly in Ratanakiri province. Its programmes focus on improving water access, sanitation, and school support. These initiatives reflect the company's commitment to responsible exploration and community engagement.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Cambodia's mining sector has made notable progress in integrating community engagement and benefit-sharing into its regulatory framework. The Mining Policy Framework (MPF), adopted by the MME, emphasises the importance of involving local communities in decision-making and ensuring that mining revenues contribute to local development. Since 2016, MME has required companies applying for industrial mining licences to submit CSR plans as part of their feasibility studies. Additionally, a community development fund was established, into which mining companies contribute proportionally based on their mineral production.

Public consultation forums have been introduced in key mining provinces such as Preah Vihear, Monduliri, and Ratanakiri, with the aim of improving transparency and accountability. However, according to the Rapid Assessment on Cambodia's Mining Policy Framework (2015–2020), the level of consultation during the licensing process remains limited. There are no formal guidelines on who should be invited to participate or how agreements should be documented (Transparency International Cambodia, 2021).

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Cambodia has formal grievance mechanisms embedded within its legal and administrative framework, including procedures under the Ministry of Mines and Energy and the Ministry of Environment. These mechanisms are designed to address disputes and concerns related to mining activities. However, they are often underutilised, and communities affected by mining projects face barriers such as limited access, lack of awareness and weak enforcement. In practice, civil society organisations frequently fill the gap, mediating disputes, advocating for community rights and helping residents navigate complex legal and administrative processes (Attipetty et al., 2023).

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Cambodia has achieved significant alignment with legal frameworks promoting gender equality under the SDG indicators. However, gaps persist in areas such as women's access to assets (including land), gender-based violence and economic inclusion, which are particularly relevant in mining-affected communities (UN Women, n.d.). While exact statistics for gender participation in Cambodia's mining sector are limited, the sector is generally male-dominated, with women often involved in informal roles or community-level support activities rather than technical or leadership positions.

3.3.3 GOVERNANCE

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

ESG reporting in Cambodia is gradually gaining traction, particularly among companies involved in internationally funded projects. There is no national law mandating ESG disclosure for public or private companies. However, firms operating with foreign investment, especially in mining, are expected to comply with the International Finance Corporation (IFC) Performance Standards and conduct environmental and social impact assessments (ESIA). Some companies, such as Renaissance Minerals and Angkor Resources, have adopted voluntary ESG frameworks, but broader adoption remains limited.

Cambodia has ratified several ILO conventions related to labour rights and occupational safety, and is a signatory to the UN Convention Against Corruption and the Paris Agreement on climate change. Additionally, it has acceded to environmental treaties such as the Convention on Biological Diversity and the Basel Convention on hazardous waste. Nevertheless, enforcement of these commitments remains inconsistent, especially in remote mining regions where oversight is limited (Transparency International Cambodia, 2021). Although Cambodia has not yet joined EITI, there have been calls for it to do so, with the aim of enhancing transparency in the extractive industries. A list of relevant international standards, treaties, and conventions is available in Appendix 2.



4 ENABLING ENVIRONMENT FOR INVESTMENT

Cambodia provides a favourable investment environment with an open economy and attractive incentives for business. The 2001 Law on Mineral Resource Management and Exploitation and the National Policy on Mineral Resources 2018–2028 promote sustainable, responsible mining, providing stability and competitive taxes for investors. Incentives such as tax benefits and streamlined services through the Council for the Development of Cambodia attract both domestic and foreign investors. Expanding logistics infrastructure and close proximity to major markets like China facilitate efficient operations and easier market access.

5 REFORMS AND STRATEGIC OUTLOOK

Cambodia's mineral sector is undergoing reforms aimed at sustainable and responsible growth, guided by the National Policy on Mineral Resources 2018–2028, which aligns with ASEAN's Minerals Cooperation Action Plan 2016–2025. The policy seeks to balance economic development, social benefits, and environmental protection, while creating an attractive investment environment with 100 percent foreign ownership allowed.



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COUNTRY PROFILE

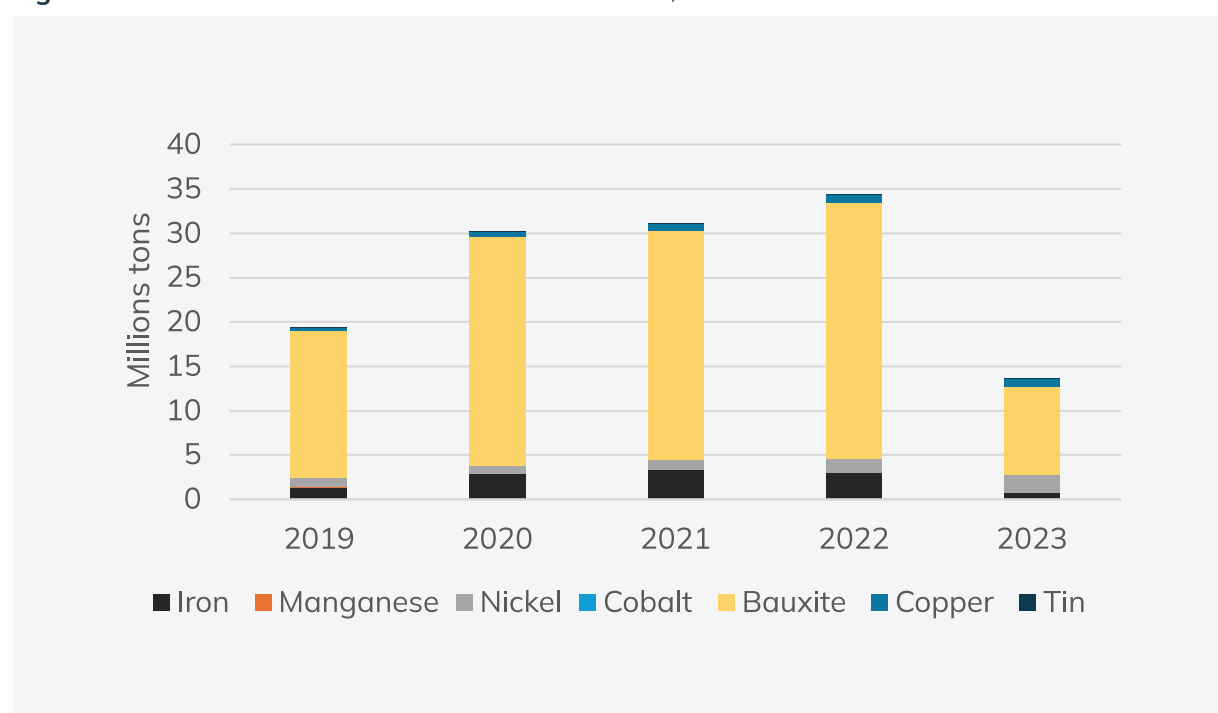
INDONESIA

Indonesia is a country rich in minerals, with the world's largest share of nickel reserves, alongside major reserves of gold, bauxite, silver, laterite iron, cobalt, laterite titanium, tin, and copper. Indonesia is the world's largest producer of nickel, accounting for around half of global production, as well as a leading global producer of tin.

The sector contributed nearly 12 percent of GDP in 2023, a significant increase from just over 7 percent in 2016. Mineral downstreaming is a strategic priority for the Indonesian government to raise added value and to support the green economy sector aligned with the vision of a Golden Indonesia 2045.

KEY HIGHLIGHTS

- + **Mineral resources:** nickel, copper, tin, bauxite, cobalt (a by-product of nickel processing)
- + **Government priorities:** streamlining mining permit applications through an integrated licensing system, export control regulations and incentives for downstream development
- + **Recent successes:** down streaming of nickel, copper, and other minerals
- + The mining and metal smelting sector accounted for approximately 23 % of foreign investment in Q1 2025, equivalent to around USD 6.5 billion

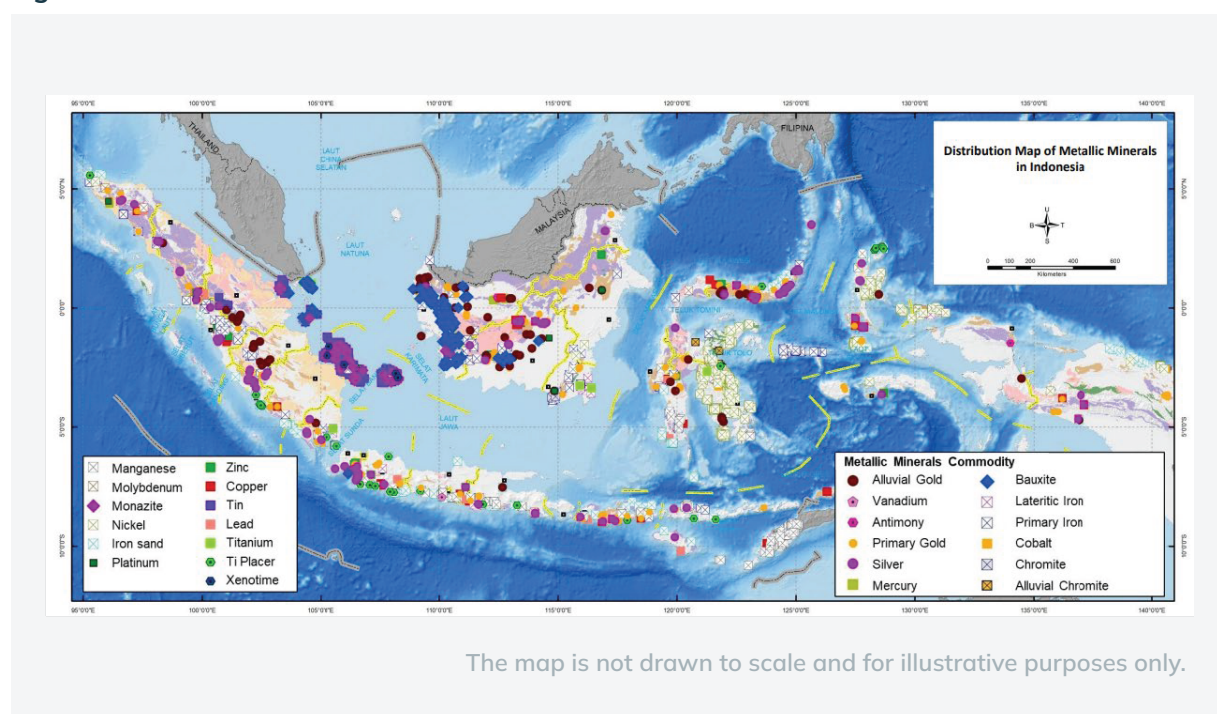
Figure 1: Production of selected minerals in Indonesia, 2019–2023

Source: World Mining Data, 2025

1 GEOLOGICAL CONTEXT

Indonesia holds major mineral reserves, including nickel, tin, copper, and bauxite. Figure 2 shows the distribution of metallic minerals in Indonesia. Nickel reserves are among the largest worldwide, concentrated mainly on the islands of Sulawesi and Halmahera. Significant tin deposits exist primarily on Bangka and Belitung. Copper reserves are found notably in Papua. Extensive bauxite deposits occur predominantly in West Kalimantan and other parts of Kalimantan. Indonesia also has important coal resources, including metallurgical coal, which supports its steel industry.

The Geological Agency (Badan Geologi) of the Ministry of Energy and Mineral Resources (MEMR) supervises all assignments, investigations and research on geological exploration undertaken by state research institutions and state-owned enterprises, as well as private entities selected through open tender. Indonesia's comprehensive geological data is publicly accessible at <https://georima.esdm.go.id>, supporting transparency and investment facilitation in the minerals sector.

Figure 2: Distribution of metallic minerals in Indonesia

Source: Ministry of Energy and Mineral Resources, 2025

2 INSTITUTIONAL FRAMEWORK

Table 1 lists the key institutions responsible for mineral governance in Indonesia. The Ministry of Energy and Mineral Resources oversees the sector by regulating legislation, licensing, work plans, budgeting, and policy enforcement, while its Directorate General of Minerals and Coal supervises regulatory implementation, monitoring, and the verification of non-tax state revenue payments. The Ministry of Finance manages financial and fiscal matters related to the sector, while the Ministry of Environment issues environmental permits. The Ministry of Investment plays a key role in coordinating policies and offering investment services within the mining sector. Subnational governments have the authority to grant permits for the extraction of non-metallic minerals and rocks, thereby retaining an important role in mining governance alongside centralised permitting functions. In addition to these institutions, there are also state-owned enterprises such as Mining Industry Indonesia (MIND ID) and industry associations like the Indonesian Mining Association (IMA) that support government policies in the mineral mining sector.

Table 1: Key institutions responsible for mineral governance in Indonesia

INSTITUTION	ROLE
Ministry of Energy and Mineral Resources (MEMR)	Formulation and stipulation of policies in the field of energy and mineral resources, coordination and synchronisation of policy implementation in these areas, management of state-owned goods and assets under its responsibility, and supervision of duties related to energy and mineral resources
Directorate General of Minerals and Coal (within MEMR)	Supervises the implementation of regulations, monitoring and verification of non-tax state revenue (PNBP) payments
Ministry of Finance	Oversees financial and fiscal matters
Ministry of Environment	Oversees environmental permits and reclamation
Subnational governments	Legal amendments have largely re-centralised the permitting process to the central government. Nevertheless, subnational governments retain the mandate to issue permits for non-metallic minerals and rocks
Financial and Development Supervisory Agency	Internal state auditor, oversees state financial supervision and prevents irregularities in financial practices
Supreme Audit Agency	An external state auditor, oversees state financial supervision and prevents irregularities in financial practices

Source: EITI, 2023



3 POLICY AND REGULATORY FRAMEWORK

Indonesia's mining framework prioritises state control of mineral resources to ensure benefits for its people, as outlined in Article 33 of the Constitution. The sector is mainly governed by Law No. 4 of 2009 on Minerals and Coal Mining, which was amended by Laws No. 3 and 11 of 2020. In 2025, Law No. 2/2025 further emphasised local mineral use, broadened permit eligibility to include religious groups and small to medium enterprises (SMEs), and reinforced regulations on domestic processing. To improve legal clarity and operational efficiency for permit holders, the government issued regulations such as Government Regulation No. 96 of 2021 and its updates, including Government Regulation No. 25 of 2024. These regulations streamline existing rules. Additionally, Indonesia's divestment policy, introduced in the 2009 Mining Law and detailed in Government Regulation No. 96 of 2021, requires foreign mining companies (where the foreign shareholding exceeds 49 percent) to gradually divest part of their shareholdings in favour of national entities, such as state-owned enterprises (SOEs) and domestic private companies.

Indonesia has an established policy on critical minerals through MEMR Decree No. 296.K/MB.01/MEM.B/2023. The decree defines critical minerals as vital resources that underpin large-scale industrial activities, especially in the electric mobility and clean energy sectors. These are key to sustainable development and combating climate change. The decree designates 47 commodities as critical—with notable examples being nickel, tin, copper, bauxite, cobalt, rare earth elements, iron, manganese, gold and silver—thanks to their economic importance, substantial domestic reserves and role in advancing the energy transition, industrialisation, and resource security. These minerals are essential for battery manufacturing, electronics, electrical infrastructure, steel production, and high-tech applications. A list of relevant laws and regulations is provided in Appendix 1.

3.1 PERMITTING PROCESSES

Indonesia's mining licences, including details of locations and commodities, are available to view online on the Ministry of Energy and Mineral Resources website and related portals.⁴ Table 2 lists the main categories of mining titles in Indonesia based on area and licensing mechanism. In state reserve areas (WPN), special mining business licences (IUPKs) are awarded through priority auctions to state-owned enterprises. In special mining business areas (WUPKs), IUPKs are issued by auction to SOEs and private companies. For general mining business areas (WUPs), mining business licences (IUPs) are granted on a first-come, first-served basis.

⁴ Indonesia's mining licences, including details of locations and commodities, are available at <https://www.minerba.esdm.go.id/pdf/225-Status%20IUP%20Nasional%20and%20modi.esdm.go.id/perizinan>.

Additionally, in community mining areas (WPRs) and for rock mining, IPR and SIPB licences are awarded respectively on a similar first-come, first-served basis, thereby enabling broader participation in the sector.

Following the publication of Circular Letter No. 17/2021, the mining licensing process and services have been migrated to Indonesia's integrated licensing system (OSS),⁵ further improving transparency and accessibility for applicants.

Table 2: Categories of mining titles in Indonesia

AREA	TYPE OF LICENCE	LICENSING MECHANISM
State reserve area (WPN)	Special mining business licence (IUPK)	Priority auction for state-owned enterprises (SOEs)
Special mining business area (WUPK)	Special mining business licence (IUPK)	Auction: SOEs and private companies
Mining business area (WUP)	Mining business licence (IUP) Rock mining licence (SIPB)	First-come, first-served basis
Community mining area (WPR)	Community mining licence (IPR)	First-come, first-served basis

Source: Ministry of Energy and Mineral Resources, 2025

3.2. FINANCIAL AND FISCAL REGIME

Indonesia reformed its mining regime in 2025, targeting taxation, royalties and benefit-sharing in order to ensure fairer revenue distribution and to encourage downstream investment. Corporate income tax applies at standard rates, while there are also special taxes and levies.

⁵ Online Single Submission (OSS) system: <https://oss.go.id>.

TAXATION AND ROYALTIES

The Mining Law stipulates that mining companies are subject to the prevailing Income Tax Law and its accompanying regulations. On 29 October 2021, Law No. 7/2021 on the Harmonisation of Tax Regulations (the HPP Law) was enacted. Its key features include maintaining the corporate income tax (CIT) rate at 22 percent from 2022 onwards, clarifying that all benefits-in-kind provided by employers are deductible for employers but taxable for employees, and establishing a depreciation period exceeding 20 years for permanent buildings and intangible assets. The law also further restricted interest deductions. Value-added tax (VAT) rates were scheduled to gradually increase from 10 percent to 11 percent starting on 1 April 2022, and then to 12 percent from 1 January 2025, with some directly sourced mining products now subject to VAT. Additionally, a carbon tax was introduced at a minimum rate of IDR 30.00 per kgCO_{2e} (approximately USD 2.00), with the law stipulating that the rate must be equal to or higher than the prevailing domestic carbon market price. The income tax provisions took effect on 1 January 2022, while VAT and the carbon tax provisions became effective from 1 April 2022.

In April 2025, Indonesia raised royalty rates for key minerals, a fee that mining companies pay for extraction—usually a percentage of sales. Rates vary by mineral type and processing method. The move aims to boost state revenue from a vital industry but has sparked controversy, with concerns over higher costs, investment delays, and reduced global competitiveness (PERHAPI, 2025).

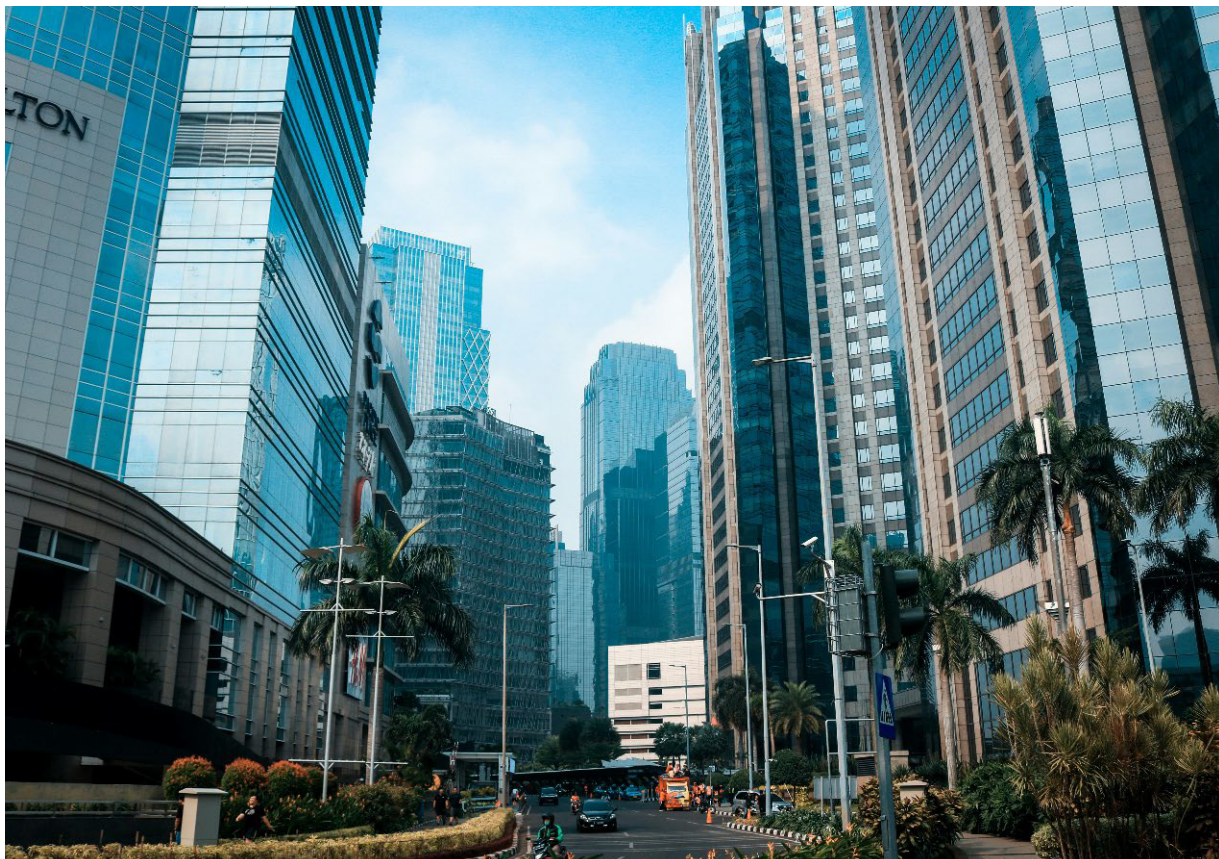


Table 3: Mineral production royalty rates

COMMODITY	ROYALTY RATE (AS OF 2025)
Nickel ore	14%–19% (based on price range)
Nickel matte	4.5%–6.5%
Ferronickel	5%–7%
Nickel pig iron (NPI)	Up to 7%
Gold	7%–16% (pricebased bracket)
Silver	5%
Copper ore	10%–17%
Copper concentrate	7%–10%
Copper cathode	4%–7%

Source: Government Regulation No. 18 of 2025

FISCAL STABILITY AND INVESTMENT INCENTIVES

Indonesia's fiscal incentives for investment include a tax holiday and tax allowance aimed at attracting investment in pioneer industries and downstream activities.

TAX HOLIDAY

On 24 September 2020, the Ministry of Finance issued Regulation No. 130/PMK.010/2020 (PMK 130), representing the latest update or revision to the tax holiday incentive for significant new investments in designated pioneer industries. For the mining sector, a tax holiday is available for the integrated upstream basic metal industry, with or without integrated derivative product processing facilities. Many smelter companies, therefore, expect to qualify for a tax holiday benefit. However, by including the smelter business in the separate tax allowance incentive, the government aims to encourage investors in smelters alone to apply for the tax allowance rather than the tax holiday. The tax holiday facility is accessible based on recommendations generated by the Online Single Submission (OSS) system.

TAX ALLOWANCE

The government issued Regulation No. 78 of 2019 (GR 78/2019) regarding the tax allowances available for companies investing in specific business sectors and/or regions. GR 78/2019 revokes a series of previous regulations (for example, GR No. 18 of 2015), which were amended by GR 9/2016. Tax incentives for the mining sector are also available, subject to certain criteria, for activities such as basic iron and steel manufacturing, iron sand processing and refining, gold and silver processing and refining, as well as certain brass, iron ore, uranium, thorium, tin, lead, copper, bauxite/aluminium, zinc, manganese, and nickel processing and refining activities.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

The government emphasises downstreaming natural resources to develop higher-value industries and boost domestic capacity. The 2023 Strategic Investment Downstream Roadmap, released by the Ministry of Investment/BKPM, highlights eight priority sectors and 21 products, including seven minerals such as nickel, tin, copper, bauxite, iron, gold, and silver, alongside steel and asphalt.

Indonesia aims to boost downstream processing and value addition in nickel, copper, and bauxite in order to establish itself as a global hub for electric vehicle (EV) batteries. Key goals include maintaining leadership in nickel and tin, increasing critical mineral supplies for green energy technologies, promoting mineral exploration through reforms, and enhancing resource mapping and reserve updates in order to attract investors.

LOCAL CONTENT AND EMPLOYMENT

Indonesian mining law requires permit holders to prioritise procurement of goods and services from local suppliers to support the domestic economy and local communities around mining areas, and to process raw materials within Indonesia, thereby promoting local industry and value addition. It also mandates prioritising Indonesian workers, including engineers and technicians, and offering training and technology transfer to enhance local capacity (IGF, 2018).

Indonesia's mining sector in Sumatra, Kalimantan, and the eastern regions faces high demand for skilled workers in operations, maintenance, engineering, and project management. This is driven by technological advances, stricter regulations and new roles in processing, logistics and manufacturing, especially in mineral refining for EV batteries. The industry struggles to find skilled labour and to adopt sustainable practices, prompting companies to seek international partnerships for training and workforce development (OECD and ADB, 2020; Monroe Consulting Group, 2025).

3.3. ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1. ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental policies in Indonesia encompass key areas, including environmental impact assessments (EIAs), pollution control, waste management, and biodiversity protection, as well as relevant policies on climate change.

The country enacted laws such as the Environmental Protection Law (No. 32/2009) and the revised Mineral and Coal Mining Law (No. 4/2009, amended in 2020). These laws balance resource extraction and environmental safeguards through EIAs and permits, while promoting transparency and public involvement.

Despite strong policies, illegal mining and environmental damage remain significant concerns. The growing recognition of the importance of sustainability in mining governance is evident in efforts to enhance government oversight and to conform to international standards.

MINE CLOSURE AND POST-MINING TRANSITION

The primary legal basis for mine closure is Mineral and Coal Mining Law No. 4 of 2009, along with related regulations, such as Government Regulation No. 78/2010 on reclamation and mine closure and MEMR Decree No. 26/2018 on reclamation and closure. These set requirements for progressive rehabilitation, closure planning and post-closure maintenance throughout the life cycle of a mine.

All exploration and production licence holders must include a reclamation plan in their exploration budget, among other requirements, and must provide a reclamation guarantee in the form of a time deposit at a state-owned bank. The reclamation plan for the exploration phase must be prepared before any exploration activities commence. Similarly, the reclamation plan for the production phase and a post-mining plan must also be prepared by the licence holders and must cover a period of five years (or the remainder of the mine's lifespan, if shorter).

Reclamation and post-mining activities will be assessed for the release of the reclamation and post-mining guarantees. If the required criteria are not satisfied, the MEMR or the provincial governor will appoint a third party to perform reclamation or post-mining work. Furthermore, according to the Amendment to the Mining Law, before the special mining area is reduced or reverted to the state, all reclamation and mine closure activities must be completed fully, to a level of 100 percent.

3.3.2. SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Indonesian Company Law No. 40/2007 requires mining companies to implement CSR for their social licence but does not specify the exact financial contribution. The MEMR issued Decree No. 1824 in 2018, which regulates the guidelines for implementing community development and empowerment in mineral and coal activities, including mechanisms for preparing the blueprint, master plan and annual programme, as well as reporting and evaluation. State-owned and listed companies promote CSR publicly, while private companies have no legal obligation to do so, resulting in less transparency. Case studies, such as PT Vale, show significant CSR investments in community development, education, health and infrastructure, although ensuring alignment with local needs and environmental conditions remains a challenge (Muhammad et al., 2024).

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Indonesia's mining sector faces complex challenges in community consultation, participation, and benefit-sharing, which are influenced by national and local laws, as well as socio-political dynamics. While Law No. 3/2020 aimed to bring about reforms, gaps remain in ensuring local community input on land-use decisions. Critics argue that the current laws and practices are inadequate, leading to an increase in the number of social protests related to mining projects (Nurhidayah et al., 2025).

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Indonesia has formal grievance mechanisms, both administrative and judicial, within its legal framework, like mining law and bodies such as the National Commission on Human Rights (Komnas HAM). However, limited protections for communities, prioritised mining interests and barriers such as corruption often undermine these efforts, leading to scepticism about their effectiveness. Voluntary standards (for example, the UN Guiding Principles on Business and Human Rights) and international complaint avenues (such as the IFC Compliance Advisor Ombudsman) supplement local systems when domestic remedies are insufficient (Marshall et al., 2016).

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Although Indonesia's mining sector is starting to recognise gender equity, it remains male-dominated, with women constituting less than 10 percent of the workforce. Some firms still adhere to gender-blind policies, but many are adopting gender-sensitive strategies, promoting equal opportunities in hiring, promotions and career advancement (World Bank, 2020).

Indonesia's mining sector has shown progress in regulations but faces challenges in enforcement. Although it has ratified conventions like the UN's Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) and enacted gender-sensitive laws, safety standards, wage equality, fair recruitment, worker status and union engagement remain inconsistent (Business and Human Rights Centre, 2024).

3.3.3. GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Since 2010, Indonesia has been a participant in the Extractive Industries Transparency Initiative (EITI), publishing annual reports on mining revenues, contracts and beneficial ownership data. However, full contract disclosure is not systematic, with only summaries consistently being made public. In 2024, Indonesia scored “fairly low” in the EITI Validation, with recommendations to boost transparency and data accessibility. The MEMR holds mining data, but public access is limited compared with international norms. Production, export and licensing data are all available online, but comprehensive contract information, environmental impact assessments, and social agreements are rarely disclosed. Fragmented data and inconsistent updates hinder public oversight.

Indonesia has increased transparency in financial flows by adopting value-based royalty calculations and promoting fiscal reforms. Nevertheless, issues such as corruption, regulatory inconsistency and profit-sharing with local governments persist. Indonesia's anti-corruption agency (KPK) has prosecuted many mining-related cases. While recent reforms aim to boost transparency and reduce discretionary licensing, corruption risks persist, particularly in the country's regions, because of discretionary powers and limited oversight.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

ESG reporting is increasingly required for public companies, including SOEs and those listed on Indonesia's stock exchange, under Indonesian Law 40/2007. Private companies are encouraged to report but are not legally required to do so. International projects financed by external sources must adhere to International Finance Corporation (IFC) standards. Some large mining firms, such as PT Vale and the Harita Group, are undergoing Initiative for Responsible Mining Assurance (IRMA) audits; however, this practice has yet to become common among other mining and processing companies.

Indonesia has ratified several ILO conventions on labour rights and safety, and is a party to the UN Convention against Corruption and the UN Framework Convention on Climate Change. It is reviewing older bilateral investment treaties and applying for OECD membership. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

Law No. 25 of 2007 on Capital Investment outlines the overarching framework for investment activities in Indonesia. It protects foreign investors through provisions, such as non-discrimination, safeguards against expropriation without fair compensation, and outlines arbitration options for disputes. Foreign mining companies are required to form a legal entity with Foreign Investment (PMA) status to operate in Indonesia.

Indonesia has entered into bilateral investment treaties (BITs) that provide extra protections for investors, such as dispute resolution through international arbitration mechanisms like the International Centre for Settlement of Investment Disputes (ICSID). This is important for mining investors who encounter issues such as licence revocation; BITs offer an additional layer of security and legal options beyond national laws.

Indonesia has enhanced its mining licensing system and process through the integrated Online Single Submission (OSS) system managed by the Ministry of Investment. The country is working to shorten permit timelines with ongoing regulatory reforms and is actively promoting digitalisation in mining operations with the support of state enterprises and government agencies.

5 REFORMS AND STRATEGIC OUTLOOK

Indonesia is strengthening its regulatory and institutional framework to address corruption and governance challenges in the mining sector. The validity of the Work Plan and Budget (RKAB) has been reduced to one year from the previous validity of three years. This change is effective from the date of issuance of the Decree of the Minister of Energy and Mineral Resources No. 365.K/MB.01/MEM.B/2023, as well as MEMR Regulation No. 10 of 2023 concerning Procedures for the Preparation, Submission and Approval of the Work Plan and Budget (RKAB). This new rule on work plans and budgets aims to ensure timely monitoring, drawing lessons from past corruption cases. In addition, the government has established a new Directorate General within the Ministry of Energy and Mineral Resources to oversee legal enforcement in the mining sector.

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COUNTRY PROFILE

LAO PDR

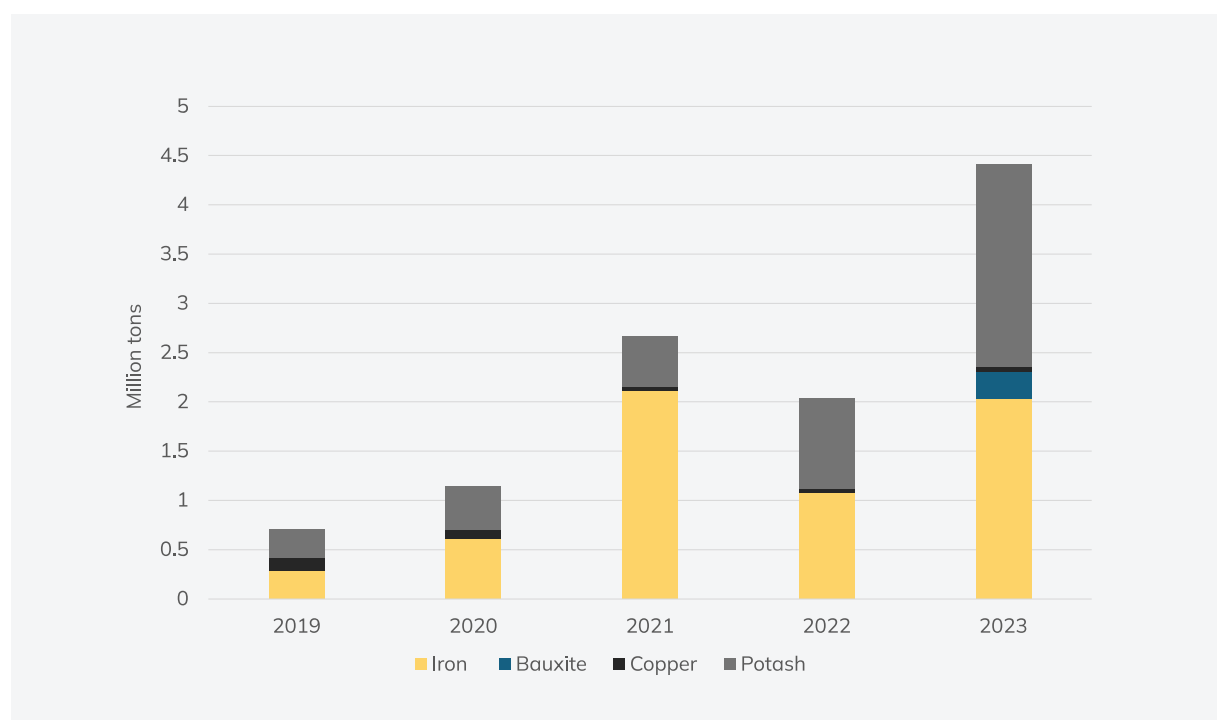
Lao PDR has significant mineral wealth, with mining making up around 10 percent of GDP and over 60 percent of exports in 2024. It is rich in copper, gold, tin, potash, and iron ore, with key mines like Phu Kham, Sepon, Thagone, and Hongsa.

Thagone contains about 50 billion tons of potash ore, while Hongsa has 424 million tons of lignite (SRK Consulting, 2024). The country also holds one of the world's largest bauxite reserves, although it remains a relatively small producer. The mining sector attracted close to USD 2.5 billion in 2024, with 378 projects by 244 companies, led by China, Viet Nam, and Thailand (U.S. Department of State, 2024).

The government aims to expand mining's role in the country's economy, and has set an ambitious target of increasing the mining and energy sector's contribution to GDP to 25 percent by 2030 (The Laotian Times, 2025a).

KEY HIGHLIGHTS

- +** **Mineral resources:** copper, gold, tin, potash, and iron ore
- +** **Government priorities:** increase the mining and energy sector's contribution to 25 percent of GDP by 2030, with an annual growth target of 10–12 percent
- +** **Recent successes:** clear legal framework for exploration, mining rights and investor duties; digital cadastre systems and a centralised mining title database
- +** The mining and metal smelting sector accounted for around 15 percent of foreign investment in 2023, equivalent to around USD 268 million

Figure 1: Production trends for key minerals in Lao PDR

Source: World Mining Data, 2025

1 GEOLOGICAL CONTEXT

Lao PDR holds substantial mineral deposits. The Phu Kham mine contains around 450 million tons of copper ore, along with 3.5 million ounces of gold and 30 million ounces of silver. The Sepon mine hosts more than 8 million ounces of gold. Thagone is considered one of Asia's largest potash deposits, with an estimated 50 billion tons of ore at 15 percent potassium chloride (KCl). In addition, Phon Tiou and Nong Xun together hold over 39 million tons of tin ore (SRK Consulting, 2024).

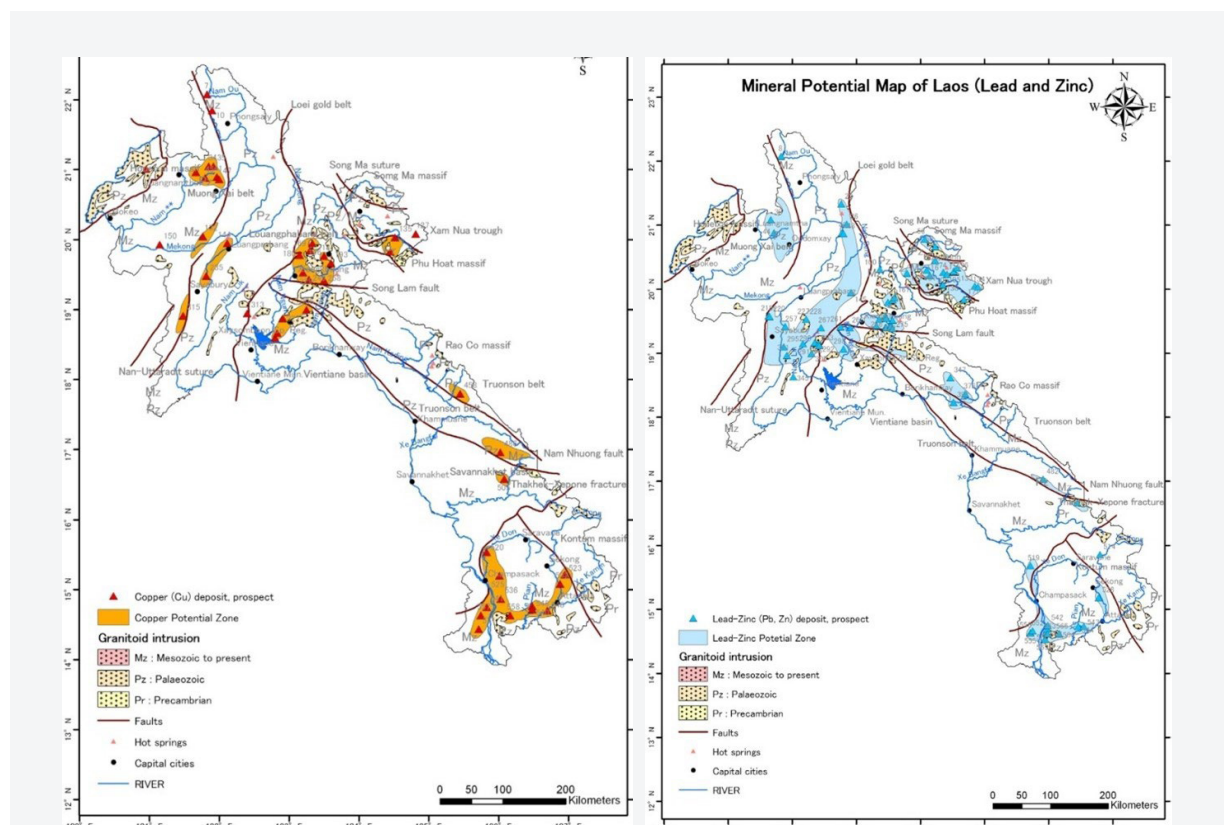


GEOLOGICAL PROSPECTIVITY

Lao PDR possesses a highly prospective geological landscape shaped by its location within the Indochina Terrane, part of the Southeast Asian tin and copper belts. The country's terrain is dominated by Palaeozoic to Mesozoic sedimentary and volcanic sequences, along with extensive granitic intrusions, which provide favourable conditions for a wide range of mineral deposits (SRK Consulting, 2024).

Major mineral belts in Lao PDR extend across central and southern regions, aligned with tectonic features and fault lines. These zones host deposits of copper, gold, tin, potash, lead, zinc, iron ore, silver, and rare earth elements (REEs). The Annamite Range and fold belts are rich in sulphide deposits and gold systems. Notable deposits include Phu Kham copper-gold and Sepon gold. Central sedimentary basins, such as Thagone and Vientiane, contain large potash reserves—among Asia's largest undeveloped reserves. Despite their potential, northern and border areas remain underexplored owing to access, infrastructure, and regulatory issues. Recent policy changes and rising mineral demand are boosting exploration interest (SRK Consulting, 2024).

Figure 2: Distribution of metallic minerals in Lao PDR



The use of the maps are for illustrative purposes only.

Source: Ministry of Industry and Commerce, 2025

2 INSTITUTIONAL FRAMEWORK

A robust institutional framework underpins mineral governance in Lao PDR, ensuring policy integration, regulatory compliance and sustainable development across the mining sector. Table 1 below lists the core institutions responsible for shaping and implementing mineral sector policy, ranging from licensing and policy development, environmental assessment and compliance monitoring to investment facilitation, local administration and fiscal oversight.

Table 1: Overview of institutional framework in Lao PDR's minerals sector

INSTITUTION	ROLE
Ministry of Industry and Commerce (MOIC)	Issues exploration and mining licences; develops mining policy and strategy; oversees geological surveys and sectoral planning
Ministry of Agriculture and Environment (MAE)	Reviews and approves environmental impact assessments (EIAs); oversees mine closure and rehabilitation; manages land use and water resources
Department of Geology and Mines (DGM)	Administers mining licences and compliance; coordinates inspection and enforcement activities
Lao Mining Development State Enterprise (LMD)	Facilitates investment and public-private partnerships in mining; manages state participation in large projects
Committee for Investment Promotion and Management (CIPM)	Screens foreign direct investment applications; oversees concession agreements and investment incentives
Provincial governments	Implement and monitor mining operations locally; coordinate with central agencies on land use and resettlement
Ministry of Finance (MoF)	Collects taxes, royalties and fees from mining companies; audits and tracks mining revenue flows
National Assembly	Approves major mining-related laws and reforms; oversees policy implementation through commissions

Source: Ministry of Industry and Commerce

3 POLICY AND REGULATORY FRAMEWORK

The Lao PDR mining sector is governed by the 1997 Law on Minerals with its latest amendment in 2017 (National Assembly of the Lao PDR, 2017). Recent reforms aim to improve transparency, environmental protection, and regulation enforcement. In February 2025, the government imposed a moratorium on new mining licences in order to strengthen oversight and prepare 34 new regulations, including rules on rare minerals, mine closure and penalties (The Lao Times, 2025b). A key reform, PM Order No. 06/PM (2025), banned alluvial gold mining, mandated ecological restoration and suspended approvals for new metallic mineral projects (The Lao Times, 2025b). Investors must post financial guarantees for mine closure (up to 50 percent in short-term projects). Local content, environmental performance and social safeguards are increasingly being required (Wildlife Conservation Society Lao PDR, 2025).

There is a growing focus on local content, environmental standards, and social safeguards. Foreign investment is permitted through concessions, with optional state equity stakes of 10–20 percent. Royalties and taxes total 40–45 percent, with an increasing portion allocated for local development (U.S. Department of State, 2024). However, challenges remain, including enforcement difficulties, overlapping concessions and unregulated artisanal mining, particularly in rural areas (Xinhuanet, 2023). A list of relevant country-level laws and policies is available in Appendix 1.

3.1 PERMITTING PROCESSES

The mining permitting process in Lao PDR consists of two primary stages: prospecting and exploration licensing; and mining licence. The process is mainly overseen by the Ministry of Industry and Commerce (MOIC), with cooperation from the Ministry of Agriculture and Environment (MAE) and the Committee for Investment Promotion and Management (CIPM). To begin, investors need to apply for a prospecting licence (2 years, with a possible 1-year extension) and an exploration licence (3 years, with a possible 1-year extension). This application requires the submission of geological data, a proposed work plan and company credentials. Additionally, environmental screening is a compulsory step, involving either an initial environmental examination (IEE) or a comprehensive environmental impact assessment (EIA), both of which are reviewed by MONRE (SRK Consulting, 2024).

If exploration proves successful, companies can apply for a mining licence, which is valid for 20 years with a possible 10-year extension. This phase requires a comprehensive feasibility study, a mine closure plan and negotiations on fiscal terms, including state equity—usually 10 to 20 percent—and financial guarantees for environmental rehabilitation. Final approval involves multiple agencies and leads to a formal concession agreement. Throughout the process, there is a strong focus on environmental safeguards, transparency, and alignment with local development priorities (U.S. Department of State, 2024).

Table 2: Categories of mining titles, stages and responsible authorities

STAGE	DURATION	RESPONSIBLE AUTHORITIES
Prospecting	2 years (1 year extension)	Department of Geology and Mines, MOIC
Exploration licence	3 years (1 year extension)	Department of Geology and Mines, MOIC
Environmental clearance	Projectbased	Department of Environment, MAE
Mining licence	20 years (may be extended by 10 years)	MOIC + CIPM + MoF

Source: MOIC

3.2 FINANCIAL AND FISCAL REGIME

Lao PDR utilises a resource-based fiscal system that combines royalties, corporate income tax, and additional state involvement to generate mineral revenues and attract investment. This framework was established by the Mining Law of 1997, with its latest amendment in 2017, along with regulations under the Investment Promotion Law 2016 (Ministry of Industry and Commerce, 2025). Mining firms pay royalties ranging from 2 percent to 12 percent, depending on the mineral type and market value. The standard corporate income tax rate is 20 percent, although it can vary based on negotiated concession agreements. Many projects also permit the government to acquire a 10–20 percent equity stake in mining operations, either through MOIC or a designated state enterprise. Additionally, companies must contribute to environmental protection funds, including mine closure guarantees and local development funds—typically a percentage of revenue—to support affected communities (U.S. Department of State, 2024).

Investors can take advantage of tax incentives provided by the Investment Promotion Law, including lower import duties and tax holidays, which vary based on project location and strategic importance. Revenue shares are allocated between the central and provincial governments, with ongoing efforts to enhance transparency and compliance. This includes better tracking of revenues from large-scale projects and efforts to curb informal or illegal mining (Xinhuanet, 2023).

TAXATION AND ROYALTIES

Lao PDR royalty rates are governed by Decree No. 002, 2023, while export taxes are regulated by Decree No. 001, 2023. The VAT rate is set at 10 percent of the sale price, while corporate income tax is set at 20 percent of profits. Additionally, after mining, a 0.01 percent contribution of the sale value must be made to post-mine closure monitoring fund.

Lao PDR imposes mineral royalties as a crucial component of its fiscal policy to benefit from natural resource extraction. These royalties, defined in the Mining Law and related decrees, are based on a percentage of mineral gross sales, with rates differing depending on the mineral type and value. Generally, industrial minerals such as gypsum and limestone attract royalties of approximately 4 percent. Base metals like copper, lead, and zinc face rates of 9 percent, while precious metals like gold and silver are taxed at approximately 12 percent. Royalties for potash and rare earth elements are variable and are typically set through negotiations or specific project agreements.

Royalties for potash are standing at 5 percent and 20 percent for rare earth elements. Part of these royalties is allocated to local development funds in areas affected by mining. Recent regulatory reforms underscore the importance of accurate royalty reporting, effective enforcement measures and strategies to prevent under-invoicing or transfer pricing, particularly in large-scale export-focused projects (Xinhuanet, 2023).

FISCAL STABILITY AND INVESTMENT INCENTIVES

Lao PDR combines fiscal stability guarantees with investment incentives to attract and retain long-term investments in mining, as outlined in the Investment Promotion Law and reinforced through specific mining concession agreements (VDB Loi, 2022). To enhance predictability, investors may receive stability clauses on key fiscal terms—such as royalty rates, corporate income tax and import duties—valid for the concession period, which typically extends up to 30 years. This protects investors from sudden legal or tax changes. The incentives include tax holidays usually lasting four to 10 years, depending on project location and scale, reduced import and export duties on equipment and materials, exemptions on land-use fees during exploration and accelerated depreciation on capital expenditure.

Projects in remote or underdeveloped areas may be eligible for extra incentives, such as subsidised infrastructure or priority licensing (U.S. Department of State, 2024). These initiatives aim to boost investor confidence while aligning with national development objectives and ensuring the Lao state receives fair revenue.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

The mineral value chain in Lao PDR is mostly dependent on resource exports, with minimal local processing. Most mining activities concentrate on exploration and initial extraction, primarily of gold, copper, and industrial minerals. Ores are generally exported in raw or semi-processed form to regional markets like China, Thailand, and Viet Nam (SRK Consulting, 2024). To boost economic value and benefit locally, the Lao government promotes downstream development through policy initiatives focused on:

- promoting domestic mineral processing and refining (e.g. copper smelting, gold refining)
- incentivising joint ventures between foreign investors and local firms
- encouraging the use of locally sourced materials and labour
- supporting the development of mineral-based industries, such as cement, fertilizers (from phosphate), and construction materials

Despite ongoing efforts, obstacles such as limited infrastructure, energy shortages and low technical skills persist. Nevertheless, recent large-scale initiatives—like potash mining and the proposed processing plants in the special economic zones—indicate advancements in adding value domestically. The government's long-term plan involves connecting mining activities with industrial growth and incorporating mineral policy into overall economic strategies (The Laotian Times, 2025a).

LOCAL CONTENT AND EMPLOYMENT

The Mining Law and related regulations require mining companies to prioritise Laotian workers, especially for non-specialised roles. Key aspects include employment quotas, where companies must employ Laotian nationals whenever possible and provide skills training to boost workforce capacity. Additionally, firms are encouraged to source goods and services from local suppliers, particularly in sectors such as transport, catering and construction.

Capacity-building is another essential requirement; investors are expected to create training programmes and offer scholarships or internships for Laotian students in mining-related fields. Furthermore, companies must engage with local communities by implementing development plans—often negotiated as part of the concession agreement—to support neighbouring villages through infrastructure projects, educational initiatives or health services.

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental management in the Lao PDR mining sector is governed by the Environmental Protection Law (amended 2024) and the Mining Law, which mandate that all mining projects conduct environmental and social assessments before receiving approval. Key requirements include:

- an initial environmental examination (IEE) or a comprehensive environmental impact assessment (EIA), depending on the scale of the project; submission of an environmental management and monitoring plan (EMMP), outlining how impacts will be mitigated throughout all phases—exploration, operation and closure
- establishment of a rehabilitation and closure plan, including a financial guarantee (bond) for post-mining restoration
- periodic environmental audits and inspections by the Ministry of Agriculture and Environment (MAE)

MINE CLOSURE AND POST-MINING TRANSITION

Mine closure and post-mining transition in Lao PDR are governed by the Mining Law and the Environmental Protection Law, which mandate all mining companies to develop responsible closure plans from the beginning of their operations. Every project must submit a mine closure plan as part of its environmental approval process. This plan details:

- procedures for site rehabilitation, waste removal, and landscape restoration
- measures to ensure long-term environmental stability (e.g. water quality, erosion control)
- socio-economic transition strategies for affected workers and communities
- estimated closure costs and a financial bond or guarantee held by the government to ensure implementation

The Ministry of Industry and Commerce (MOIC), in cooperation with MAE, oversees compliance throughout the entire mine life cycle. Closure obligations must be met before the concession can be formally terminated. Efforts are also under way to promote land use planning after mining, including reforestation, agriculture or community infrastructure development, ensuring sustainable results once resource extraction concludes.

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Socio-economic and community development serve as a core component of the Lao PDR mining governance system. Legislation mandates mining companies to support the welfare of nearby communities, particularly those impacted by exploration and extraction operations (National Assembly of the Lao PDR, 2017). Important provisions encompass:

- Preparation of a social impact assessment (SIA) alongside the environmental impact assessment.
- Development of a community development plan (CDP), often integrated into mining agreements, detailing commitments in health, education, infrastructure, and livelihoods.
- Revenue-sharing mechanisms, including mandatory contributions to local development funds.
- Local employment and training programmes to increase community participation in the workforce.
- Resettlement and compensation schemes for displaced households, governed by national and international safeguards. Community engagement is enforced through free, prior and informed consent (FPIC) principles, especially for ethnic groups and vulnerable populations. While implementation quality varies, Lao PDR is working to improve transparency, monitoring and accountability, with donor and civil society support helping ensure that mining-led development benefits local populations over the long term.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

The Mining Law and Environmental Protection Law mandate that mining projects involve meaningful participation from affected communities, starting from the earliest stages of exploration. During the environmental and social impact assessment (ESIA), project proponents are legally obliged to hold public consultations to keep communities informed about potential impacts, risks, and benefits. These consultations must respect local cultures, especially in regions with indigenous and ethnic minority groups, and adhere to the principle of free, prior and informed consent (FPIC). Additionally, mining companies are required to establish community benefit-sharing mechanisms, which generally include:

- contributions to local development funds
- development of public infrastructure, such as roads, schools, and health facilities
- livelihood support programmes, including training, agricultural inputs or small business development
- initiatives to promote cultural preservation and environmental stewardship

These commitments are often formalised in community development agreements (CDAs) or embedded within the terms of the mining concession. The implementation and impact of such programmes are monitored by the Ministry of Industry and Commerce and local authorities, although capacity constraints remain a challenge. Over time, Lao PDR has sought to strengthen transparency and accountability in this area, recognising that genuine community engagement is key to both social licence and long-term development outcomes.

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

To promote social stability and sustainable mining practices, Lao PDR has set up grievance redress mechanisms as a legal and operational requirement for mining projects. These mechanisms aim to ensure that local concerns, complaints and disputes related to mining are addressed quickly, fairly, and transparently. According to the Environmental Protection Law and mining regulations, companies are required to develop and implement a formal grievance process that is accessible to all community members, including vulnerable groups and ethnic minorities.

Grievance mechanisms usually operate through community liaison offices, village grievance committees or designated focal points, and are supported by local government and village leaders. Regular dialogue, community meetings and feedback sessions also help prevent conflicts from escalating. At the national level, oversight is provided by the Ministry of Industry and Commerce and the Ministry of Natural Resources and Environment, which may intervene in more serious or unresolved disputes. These systems not only help mitigate risks and maintain social licence, but also foster trust and accountability between mining companies, communities and the state—essential for the long-term viability of the sector.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Lao PDR has progressively integrated principles of gender equity, social inclusion, and human rights protection into its mineral sector governance, recognising that inclusive development is essential for sustainability and community well-being (The Constitution of Lao PDR amended 2003; Labor law amended in 2013). Mining projects are expected to:

- ensure equal access to information, employment and consultation for women, youth, indigenous peoples and marginalised groups
- conduct gender-sensitive environmental and social impact assessments (ESIAs), identifying potential risks and opportunities across different social groups
- develop inclusive community development programmes, such as vocational training, income generation, and leadership initiatives that empower women and vulnerable populations
- promote safe and equitable workplaces, free from discrimination, harassment and exploitation

Legal protections are grounded in the Constitution of the Lao PDR (2003), the Law on the Development and Protection of Women (2004), and international commitments such as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). These are reinforced by sectoral guidelines issued by the Ministry of Industry and Commerce and the Ministry of Labour and Social Welfare. Companies are encouraged—and in some cases required—to apply gender action plans and inclusive hiring policies, with periodic monitoring and reporting. Although implementation is still evolving, Lao PDR is making strides towards ensuring that the benefits of mineral development are equitably shared and socially just, leaving no one behind.

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Transparency and accountability are critical pillars of Lao PDR's strategy to govern its mineral resources more effectively and equitably. Over the past decade, the country has taken steps to improve disclosure, streamline data management and combat corruption within the mining sector.

Efforts are also ongoing to modernise data collection and reporting systems, spearheaded by the The Ministry of Industry and Commerce with support from international development partners. These initiatives include creating digital mining cadastres, enhancing geological databases, and centralising the tracking of licences and payments. To address corruption, the country enforces legal measures under its Anti-Corruption Law (2024), which requires:

- public officials to declare assets and avoid conflicts of interest
- strict rules on procurement and permitting processes
- independent audits and public oversight, especially in high-revenue projects

While challenges remain in enforcement and capacity, these reforms aim to foster a more transparent, predictable and investor-friendly environment—while also enhancing public trust and reducing governance risks in the mineral sector.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Lao PDR is a signatory to several international treaties and conventions that shape its legal and institutional framework for mineral resource governance, particularly concerning environmental protection, human rights, labour standards and transparency.

Key international instruments include:

- Minamata Convention on Mercury – Ratified by Lao PDR to reduce and eventually eliminate mercury use, especially in artisanal and small-scale gold mining (ASGM), protecting human health and ecosystems.

- Convention on Biological Diversity (CBD) – Influences land use planning and environmental impact mitigation in mining regions, particularly in ecologically sensitive zones.
- ILO conventions – Lao PDR is a party to several core ILO conventions, including those on occupational safety, child labour, and equal remuneration, which apply to mining workplaces.
- CEDAW and UNCRC – As a signatory to the Convention on the Elimination of All Forms of Discrimination Against Women and the UN Convention on the Rights of the Child, Lao PDR integrates gender and child protection into development planning, including in the extractive sectors.

These international commitments are increasingly being integrated into national policies, permit requirements and corporate social responsibility standards. Development partners and multilateral agencies, such as the World Bank and UNDP, aid in their implementation through technical assistance and capacity-building efforts. Despite ongoing institutional gaps, following these frameworks enhances governance credibility, attracts foreign investment and helps the country's mineral sector develop in line with global best practices. A list of relevant international standards, treaties, and conventions is available in Appendix 2.



4 ENABLING ENVIRONMENT FOR INVESTMENT

Lao PDR has made progress in creating an investment-friendly environment for its mineral sector, aiming to attract responsible investors and promote sustainable resource management. The revised Minerals Law (2017) and its regulations offer a clear legal framework for exploration, mining rights and investor duties. These laws are supported by environmental, land and investment policies to ensure sector consistency. Fiscal incentives like tax holidays, reduced import duties and streamlined customs under the Investment Promotion Law benefit projects in priority sectors and underdeveloped areas.

The country has implemented permitting reforms aimed at boosting transparency and efficiency, such as digital cadastre systems and a centralised mining title database. To safeguard investors, it is a member of the Multilateral Investment Guarantee Agency (MIGA) and has signed various bilateral investment treaties, providing protection against expropriation, and enabling access to international arbitration. Despite challenges, Lao PDR maintains political and economic stability through macroeconomic growth, political continuity, and regional alliances like ASEAN and the Belt and Road Initiative (BRI), boosting trade and infrastructure. Additionally, the country actively encourages public-private dialogue through forums and working groups that include government officials, industry associations, and development partners.

5 REFORMS AND STRATEGIC OUTLOOK

Lao PDR enjoys a politically stable environment, providing a solid foundation for investment. It prioritises mineral processing by making it a key investment sector, supported through low concession fees and decreased import and export duties, including VAT. This strategy reduces operational costs for companies and boosts profitability.

Furthermore, importing mining equipment incurs no import tax, reducing costs and simplifying procurement for companies. The country takes advantage of various bilateral and multilateral trade agreements, which streamline international trade processes. When combined with policies that encourage foreign direct investment (FDI), these elements together foster a welcoming environment for investors and businesses in the mining industry.

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COUNTRY PROFILE

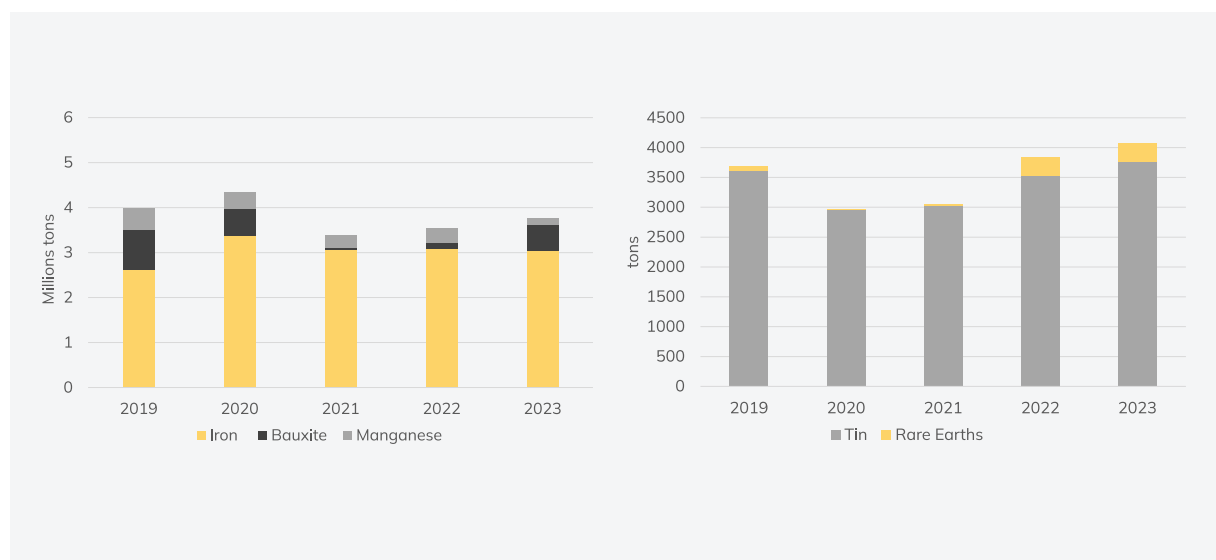
MALAYSIA

Malaysia's minerals sector is rich in diverse resources, including rare earth elements (REEs), tin, bauxite, kaolin, silica sand, and iron ore.

The country is also rich in rare earth deposits ion adsorption clay (IAC) type, estimated at 16.1 million tonnes (Ministry of Natural Resources and Environmental Sustainability, 2024). Recent developments have seen Malaysia actively pursuing the National Mineral Industry Transformation Plan 2021–2030, aimed at modernising the sector with a focus on sustainability by developing full value chain from upstream extraction to downstream processing, technology, innovation, and value-added downstream industries. In 2024, the mining sector contributed around 6 percent of total GDP (Ministry of Economy Malaysia, 2024), with value added in the sector consistently expanding, driven by government focus.

KEY HIGHLIGHTS

- +** **Mineral resources:** tin, bauxite, rare earth elements (REE), iron ore
- +** **Government priorities:** domestic mineral processing, value addition and circularity
- +** **Recent successes:** The country hosts the only major rare earth processing facility outside China, accounting for 8 percent of global output
- +** Mineral sector value added has grown from 4.3 percent in 2006 to 11.7 percent in 2022
- +** The mining and metal smelting sector accounted for approximately 4.5 percent of foreign investment in Q1 2025, equivalent to around USD 340 million

Figure 1: Mineral production in Malaysia, 2019–2023

Source: World Mining Data, 2025

1 GEOLOGICAL CONTEXT

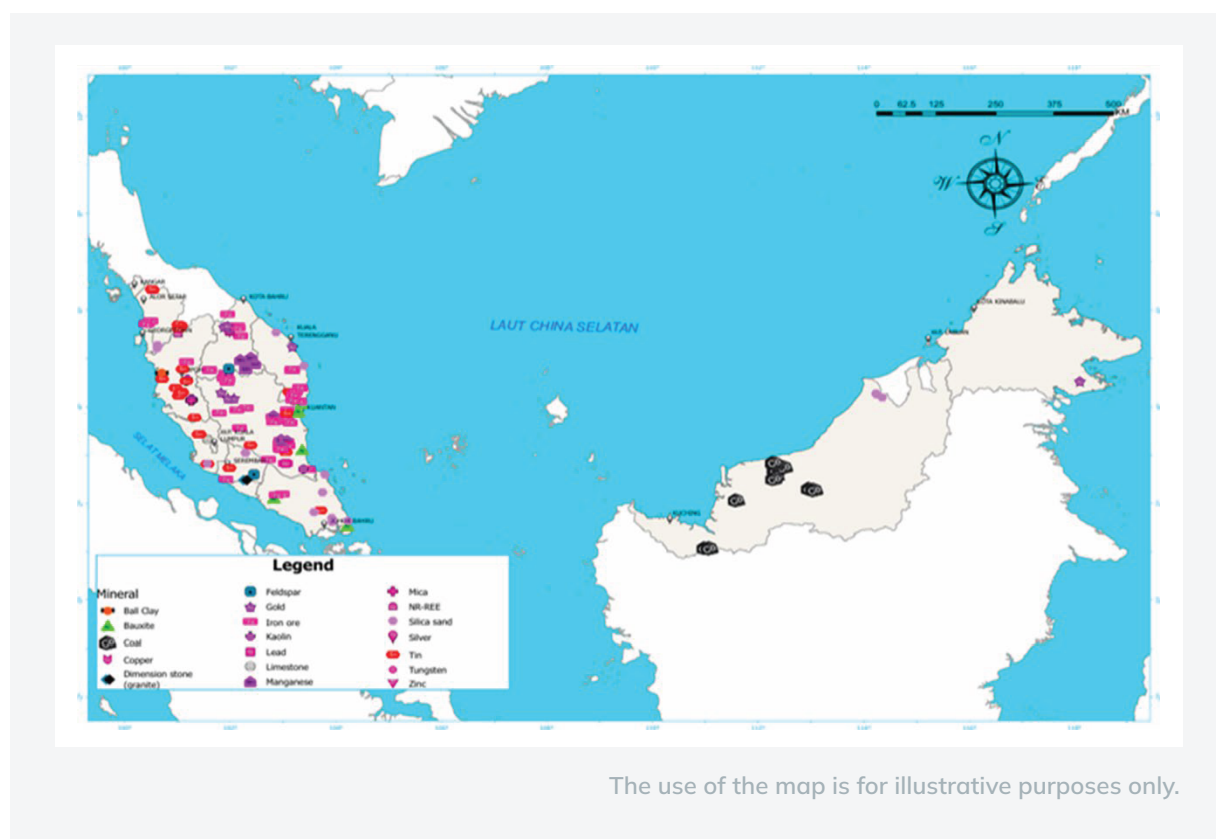
Malaysia is increasing exploration for rare earth elements (REEs), mainly concentrated in states like Terengganu (7.2 tonnes), Kelantan (2.5 tonnes), Perak (1.7 tonnes), Kedah (1.2 tonnes), and Pahang (1.2 tonnes), with an estimated 86 percent of total REE AIC type deposits or around 16.1 million tonnes of high economic value (Ministry of Natural Resources and Environmental Sustainability, 2024). While traditional reserves such as tin, gold, iron ore, and bauxite are still mined moderately, their long-term output is declining. Meanwhile, REE has become a strategic priority in the national transformation agenda. Early-stage mining projects in Perak, with about 1.7 million tonnes of REE reserves, are advancing data mapping and resource development. The New Industrial Master Plan 2030 (NIMP 2030) highlights the potential of REE and aims to harness its 18.2 million tonnes of non-radioactive RE reserves by 2030. These are valued at MYR 747.2 billion and could attract investments worth MYR 100 billion, generating 4,000 jobs (Ministry of Science, Technology and Innovation, 2022).

GEOLOGICAL PROSPECTIVITY

Malaysia's diverse terrain, part of the Sundaland Craton, includes the Western Belt with tin and tungsten, the Central Belt with gold, iron ore, and REEs, and the Eastern Belt with bauxite and industrial minerals like kaolin and silica. It was a leading tin producer, primarily in Perak and Selangor. Focus has recently shifted to non-radioactive REEs in weathered granite areas in Perak, Kedah, and Terengganu.

Preliminary government data show Malaysia has up to 18.8 million tonnes of REE deposits, worth about MYR 747.2 billion, with pilot projects in Perak containing about 1.7 million tonnes. Gold prospects exist in the Raub-Bentong and Sokor belts, while high-grade iron ore is mined in Terengganu. The Department of Mineral and Geoscience Malaysia (JMG), under the National Mineral Industry Transformation Plan 2021–2030, supports geological mapping and exploration, focusing on digital mapping, sustainable mining and developing downstream industries. Figure 2 shows a map of mineral distribution in Malaysia.

Figure 2: Distribution of mines in Malaysia



Source: Ministry of Energy and Natural Resources, 2021

2 INSTITUTIONAL FRAMEWORK

Malaysia's mineral sector governance is shaped by a network of federal, state and specialised agencies, each with distinct mandates, regulatory powers, and roles in the mining value chain. The integration of policymaking, regulatory oversight, environmental safeguards, licensing, and investment promotion ensures both sustainable development and effective resource management. Table 1 provides an overview of the key institutions responsible for mining governance in Malaysia and summarises their respective functions within the sector.

Table 1: Overview of institutional framework of Malaysia's mining sector

INSTITUTION	ROLE
Ministry of Natural Resources and Environmental Sustainability (NRES)	Formulates national mineral policy, oversees sustainable mining strategies and supervises JMG and REE regulations
Department of Mineral and Geoscience Malaysia (JMG)	Conducts geological mapping, resource assessments and exploration data, and enforces federal mineral laws
State governments (via state mineral offices or corporations)	Hold authority over mineral licensing, land access, royalty collection and local regulatory enforcement
Department of Environment (DOE)	Evaluates and approves environmental impact assessments (EIAs) for mining projects under the Environmental Quality Act 1974
PLANMalaysia (Department of Town and Country Planning)	Coordinates landuse planning and integrates mining zones into national and local development plans
Department of Atomic Energy Malaysia (Atom Malaysia)	Regulates radioactive elements and ensures REE mining complies with radiation safety standards (if applicable)
Malaysian Investment Development Authority (MIDA)	Promotes domestic and foreign investment in downstream mineral processing and manufacturing
Malaysia Productivity Corporation (MPC)	Supports regulatory reform and digitalisation of mineral licensing under the Malaysia Mudah and Smart Mining initiatives
Federal and state land offices	Handle landuse classification, access rights and gazettement of mining leases and forest reserves

Source: Ministry of Natural Resources and Environmental Sustainability, 2025

3 POLICY AND REGULATORY FRAMEWORK

Malaysia's mineral sector operates under a dual jurisdiction system involving federal and state authorities. The federal level employs laws like the Mineral Development Act 1994 for mineral licensing, development and management, establishing national standards. The Environmental Quality Act 1974 governs environmental policies for mining, thereby promoting sustainability. State governments also have control through mineral enactments, issuing licences, collecting royalties, and overseeing exploration within their areas. This system requires coordination to balance national goals with local interests in managing mineral resources.

The National Mineral Industry Transformation Plan 2021–2030 highlights five key strategic minerals—non-radioactive rare earth elements (NR-REEs), bauxite, tin ore, silica sand, and kaolin—as focal points for sustainable, value-added development. It emphasises green mining, digital mapping, and resource management. A 2023 standard operating procedure (SOP) for NR-REE mining enforces stricter controls, including in situ leaching, groundwater monitoring, and EIAs. Mining is banned in protected forests to protect biodiversity. The government’s export moratorium on raw rare earths and other minerals, such as silica sand, promotes domestic state-level processing, encouraging investment and strengthening the mineral supply chain. A list of relevant country-level laws and regulations is available in Appendix 1.

3.1 PERMITTING PROCESSES

In Malaysia, mining permits are primarily administered at the state level because land and mineral rights are under state jurisdiction, as per Malaysia’s federal constitution. All major mining projects must also meet federal standards, especially environmental and technical standards. The process involves obtaining prospecting or exploration licences, then mining leases or certificates approved by the state mineral office or state executive council (EXCO). Applicants also need environmental impact assessment (EIA) approval from the Department of Environment (DOE) and land-use approval from PLANMalaysia, if required. For rare earth elements (REE), oversight is additionally provided by the Department of Mineral and Geoscience Malaysia (JMG) and, if needed, the Atom Malaysia.



Table 2: Categories of mining titles, permit stages and authorities

CATEGORY/TITLE	PURPOSE	STAGE	RESPONSIBLE AUTHORITY
Prospecting licence	Surface geological mapping and sampling	Initial exploration	State mineral office/state EXCO, JMG
Exploration licence (EL)	Subsurface drilling and resource estimation	Advanced exploration	State mineral office/JMG
Mining lease (ML)	Full-scale commercial mining	Production phase	State EXCO/land office, JMG
Temporary occupation licence (TOL)	Land access for exploration or pilot mining	Land access (nonexclusive)	District land office
Environmental impact assessment (EIA) approval	Required for mining projects greater than or equal to 20 hectares or involving REEs	Preapproval requirement	Department of Environment (DOE)
Planning approval	Land-use conformity and zoning	Before the mining lease	PLANMalaysia/local planning authority
Radioactive material handling permit	Only if radioactive elements are involved	Special condition (REE)	Department of Atomic Energy Malaysia (Atom Malaysia)

Source: Ministry of Natural Resources and Environmental Sustainability, 2025

3.2 FINANCIAL AND FISCAL REGIME

Malaysia's mineral fiscal system includes state-imposed royalties, usually 5–11 percent for minerals, along with a 24 percent federal corporate tax. Royalties for industrial minerals such as bauxite or silica are charged based on volume or weight. Although there are no production-sharing agreements, investment is promoted through fiscal incentives and export restrictions on strategic minerals like rare earths.

TAXATION AND ROYALTIES

Malaysia's mineral royalty system varies from state to state, taxing metallic minerals at 5–11 percent of gross value and REE up to 15 percent as in Kedah. Industrial minerals are taxed according to volume. In 2021, total state royalties for minerals and rock materials (tin, gold, kaolin, etc.) amounted to MYR 421 million. In the pilot NR-REE project in Perak (Mukim Kenering), nearly MYR 16 million in royalties had been collected from rare earth carbonate exports by July 2023.

Table 3: Mineral royalty rates

COMMODITY/CATEGORY	TYPICAL ROYALTY RATE
Minerals (tin, gold, iron, silica sand, limestone, feldspar, etc.)	Approximately 5%–11% of gross value
Rare earth elements (REEs, e.g. in Kedah state)	up to 15% ad valorem
Industrial minerals (silica, kaolin, rock aggregates, alluvial sand, marine sand earth materials)	per tonne or per volume (as determined by each state)
Total royalties collected (2021)	MYR 421 million from state-collected royalties

Source: Ministry of Natural Resources and Environmental Sustainability, 2025

FISCAL STABILITY AND INVESTMENT INCENTIVES

Malaysia maintains fiscal stability with a 24 percent corporate tax rate and promotes high-value investment through incentives managed by MIDA and other agencies. These include Pioneer Status (PS), with 100 percent tax exemption for high-tech or strategic activities; Investment Tax Allowance (ITA) of 60–100 percent on capital expenditure over 5–10 years; and Reinvestment Allowance (RA) of 60 percent for modernisation or expansion. Green initiatives benefit from the Green Investment Tax Allowance (GITA) and the Green Income Tax Exemption (GITE) schemes. A New Investment Incentive Framework (NIIF) in 2025 will feature performance-based incentives like double tax deductions on supply chain resilience and a MYR 1 billion fund to develop high-value sectors and local talent.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Malaysia's industrial strategy now emphasises a whole value chain for non-radioactive rare earth elements, from resource extraction to high-value products like magnets and electronics. This aligns with plans to monetise reserves of 16.1 million tonnes, aiming for downstream output of MYR 13.6 billion – MYR 13.7 billion by 2030, boosting employment and innovation.

LOCAL CONTENT AND EMPLOYMENT

Malaysia prioritises local content and employment in its mineral sector. Malaysia's local content policy emphasises co-ownership by Malaysian nationals and develops strategic suppliers to integrate local companies into global value chains, rather than focusing solely on domestic production. In the context of employment, mining, and quarrying employed about 35,600 people in 2023—more than half the sector's workforce. Most workers are semi-skilled or skilled. The policy promotes local workforce participation, training, and domestic procurement. Pilot projects for rare earths, such as in Perak, could generate around 7,000 indirect jobs by 2025 in areas such as operations, monitoring, and land management.

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Malaysia's mineral industry is governed by strict environmental laws under the Environmental Quality Act 1974, requiring EIAs for major projects. In 2023, a standard operating procedure (SOP) for non-radioactive rare earth element (NR-REE) mining was introduced, covering in situ leaching, groundwater monitoring wells and phased land rehabilitation. Mining is forbidden in sensitive zones like protected forests. The Department of Environment (DOE) enforces EIA compliance, while JMG and Atom Malaysia handle safety and radiation. Forestry and wildlife laws provide further ecological safeguards.

MINE CLOSURE AND POST-MINING TRANSITION

Malaysia requires mine closure and transition plans from exploration through to postclosure for sustainable land use and community adaptation. Under the Mineral Development Act 1994 operators must submit progressive and final restoration plans about 2.5 years before lease expiry, including rehabilitation, environmental monitoring, financial guarantees and community transition strategies, with annual reviews carried out by relevant authorities.

Regulators, such as the Department of Mineral and Geoscience Malaysia (JMG) and the state mineral office, supervise mine closures and assess reclamation and environmental safeguards. Companies rated “below average” risk losing any future leases. Financial guarantees remain in effect until closure is certified, with some states requiring endowment funds for long-term monitoring. Post-mining land is often rehabilitated for agriculture, ecotourism or community projects, highlighting Malaysia’s commitment to responsible land transition and sustainability.

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Malaysia promotes inclusive growth by integrating socio-economic and community initiatives into mineral projects. Mining companies, especially those handling strategic minerals like rare earth elements (REEs), are required to support local development through jobs, training and community activities. The REE pilot project in Perak aims to create about 7,000 indirect jobs by 2025, involving local workers in operations, monitoring and land access. These efforts also support micro-enterprises, with royalties and donations often reinvested in community programmes such as water, education, and healthcare.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Malaysia emphasises community consultation and benefit-sharing in mineral governance. Public participation in the environmental impact assessment (EIA) under the Environmental Quality Act 1974 is mandatory before mining approvals. During consultation display periods, communities can voice their concerns, thereby influencing project design. For strategic minerals like REEs, companies must engage local stakeholders early on. Benefit-sharing includes CSR programmes such as education, healthcare, livelihood support (beyond employment) and infrastructure. This approach aims to reduce conflict, enhance transparency and ensure fair mining benefits.

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Malaysia promotes conflict prevention and grievance redress in mining through legal frameworks and participatory processes. Communities voice concerns during EIAs, and companies must create local grievance mechanisms. For complex issues like land disputes or revenue mismanagement, the government offers mediation, alternative dispute resolution and legal support, overseen by agencies like the Malaysian Anti-Corruption Commission (MACC) and the courts. Community groups and advocates assist affected populations in ensuring accountability and protecting rights.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Malaysia aims to boost gender equality and social inclusion by increasing women's participation in mining, which represents about 13–15 percent of the workforce. Initiatives like Shared Prosperity Vision 2030 promote inclusive growth for women, indigenous peoples, and rural communities. Local authorities require at least 30 percent female representation on development committees. The Human Rights Commission of Malaysia (SUHAKAM) oversees human rights, with NGOs supporting advocacy and community efforts to protect rights and access to mining benefits.

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Malaysia has improved mineral sector governance through the adoption of digital tools, transparency policies and anti-corruption efforts. The Malaysian Anti-Corruption Commission employs artificial intelligence (AI) and blockchain technology to monitor procurement and spot any irregularities. The 2024–2028 National Anti-Corruption Strategy aims to boost institutional integrity and accountability. Transparency is supported through initiatives such as Open Government Data (OpenDOSM), led by the Department of Statistics. Agencies like JMG handle the disclosure of geospatial and mineral data. Sector-wide integrity frameworks include ISO 37001, an international standard for anti-bribery management systems, and the Organisational Anti-Corruption Plan (OACP).

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Malaysia aligns its mining governance with global standards through voluntary and official commitments. Malaysia adheres to agreements like the UN Framework Convention on Climate Change (UNFCCC), the Convention on Biological Diversity and the ASEAN Free Trade Agreement, supporting sustainable practices and environmental protection. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

Malaysia offers a stable, investor-friendly environment with policies permitting 100 percent foreign ownership, making it appealing for international investors. The country provides various incentives to promote business growth, such as Pioneer Status, which grants tax exemptions to new industries, and the Investment Tax Allowance, which encourages reinvestment and expansion. Key agencies like the Malaysian Investment Development Authority (MIDA) and the Special Task Force to Facilitate Business (PEMUDAH) are crucial in improving infrastructure and streamlining administrative procedures, ensuring investors receive efficient support throughout their investment process.

To boost industrial growth, Malaysia has adopted strategic initiatives like the National Investment Aspirations (NIA) and the *National Mineral Industry Transformation Plan 2021–2030*. These aim to promote added-value mining, foster innovation and encourage sustainable practices in the sector. The creation of special economic zones, such as the Johor-Singapore Special Economic Zone (JS-SEZ), offers tax benefits and regulatory advantages that support rapid industrial expansion and cross-border cooperation. Additionally, Malaysia's digital infrastructure, with accessible portals like MalaysiaBiz, InvestMalaysia, e-BMG for mineral export permit and Xpats Gateway, streamlines business registration and investment processes while providing easy-to-access resources. These efforts collectively strengthen Malaysia's position as a competitive, future-oriented investment destination.

5 REFORMS AND STRATEGIC OUTLOOK

Malaysia is undertaking a comprehensive overhaul of its mineral sector through the implementation of the National Mineral Industry Transformation Plan (2021–2030). This strategic initiative aims to significantly boost the contribution of the mineral industry to national GDP by promoting value-added activities across the mineral value chain, with particular focus on critical minerals such as rare earth elements (REEs). Acknowledging the essential role of REEs in advanced technologies like electric vehicle batteries, renewable energy systems and electronics, Malaysia is shifting its approach from merely exporting raw materials to developing domestic processing and refining capabilities. Key reforms include imposing restrictions on raw REE exports to encourage local beneficiation, updating the legislative framework to attract investment and innovation, and enhancing environmental, social and governance (ESG) standards to promote responsible and sustainable mining practices.

The plan also introduces targeted incentives to boost growth in the midstream and downstream sectors, encouraging the production of processed minerals and finished products. Malaysia aims to build a sustainable “mine-to-magnet” ecosystem that covers the entire supply chain—from extraction to manufacturing components such as permanent magnets for electric motors and renewable tech. These reforms are expected to create skilled jobs and economic opportunities, positioning Malaysia as a regional centre for advanced mineral processing and green technology manufacturing. Ultimately, the National Mineral Industry Transformation Plan (2021–2030) aligns Malaysia with global green economy trends, strengthening its role in critical mineral supply chains and boosting economic resilience and competitiveness in the global market.

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COUNTRY PROFILE

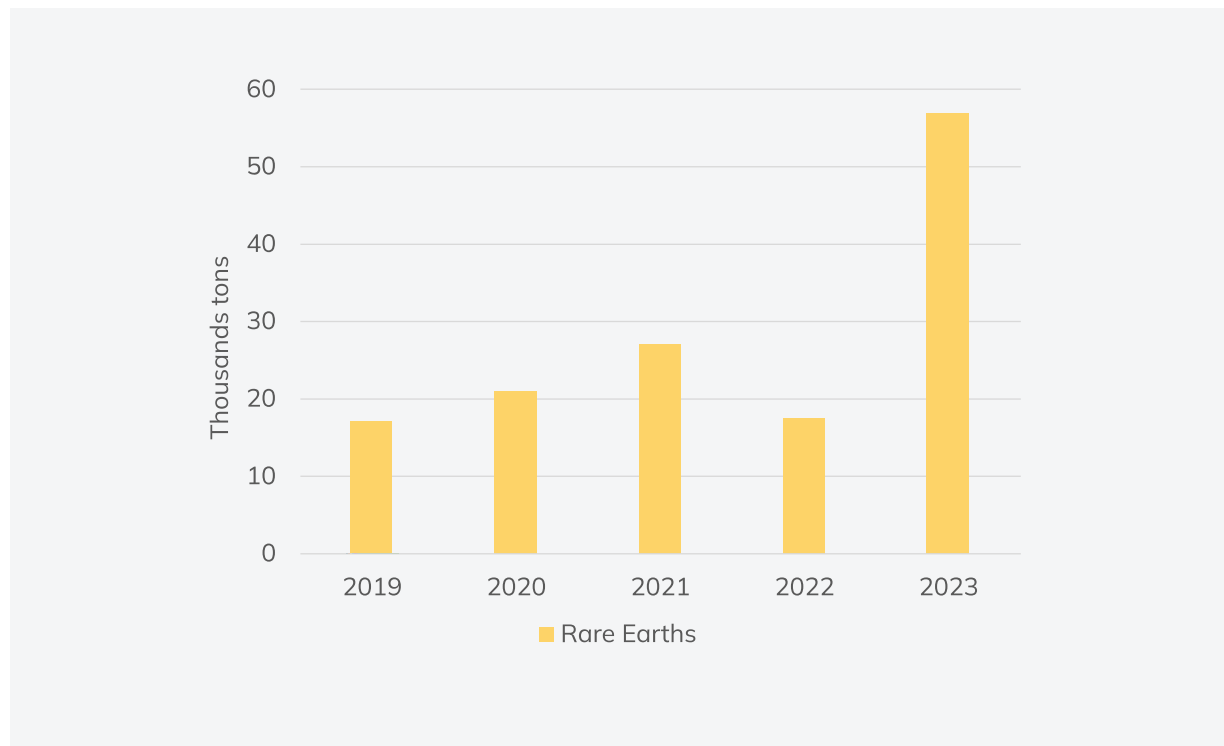
MYANMAR

Myanmar remains the world's leading source of jadeite, supplying an estimated 70 to 90 percent of global demand (Financial Times, 2022). It is also a key exporter of heavy rare earth elements (HREEs) such as dysprosium and terbium, which are essential for the manufacture of electric vehicles (EVs) and for green technologies (U.S. Geological Survey, 2024).

In 2023, Myanmar produced about 42,000 tons of rare earth elements (REEs), contributing around 14 percent of global output, which was primarily exported to China (U.S. Geological Survey, 2024). Heavy REE production has risen significantly from the more than 17,500 tons recorded in 2022 (World Mining Data, 2025). Mineral exports in the 2023–2024 financial year totalled between USD 271 (Xinhua News Agency, 2024).

KEY HIGHLIGHTS

- +** **Mineral resources:** nickel, copper, rare earth elements, iron ore, tin, jadeite
- +** **Government priorities:** domestic mineral processing
- +** **Recent successes:** established legal framework that encourages foreign participation, offering tax incentives and allowing 100 percent foreign ownership in large-scale projects

Figure 1: Rare earth production in Myanmar, 2019–2023

Source: World Mining Data, 2025

1 GEOLOGICAL CONTEXT

Myanmar is widely recognised for its deposits of tin, especially at the Man Maw mine, one of the world's largest sources (Home, 2025). The country is also a crucial supplier of heavy rare earth elements, such as dysprosium and terbium, with known concentrations in Panwa and Chipwi, near the Chinese border. In 2023, Myanmar accounted for an estimated 42,000 tons of REE production, representing approximately 14 percent of global output. However, reliable data on mineral reserves remains scarce owing to limited geological surveys and restricted access to conflict-affected areas. (U.S. Geological Survey, 2024).

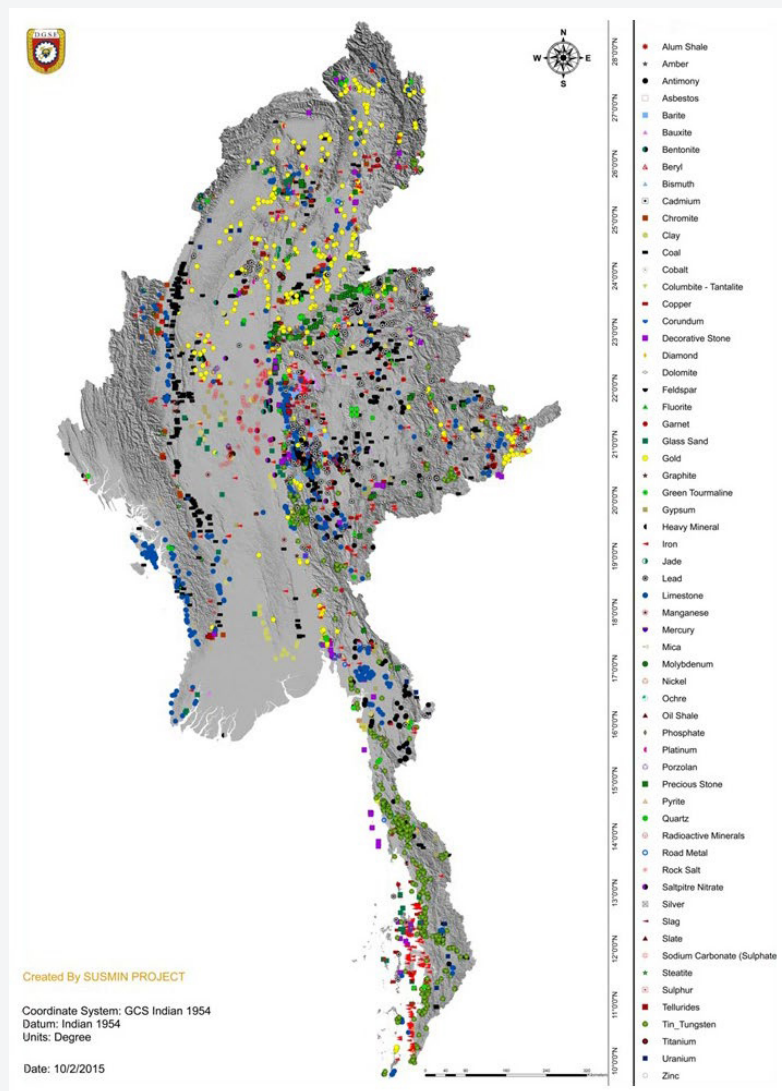
GEOLOGICAL PROSPECTIVITY

Myanmar lies within one of Southeast Asia's most geologically diverse and mineral-rich belts, shaped by the tectonic convergence of the Indian and Eurasian plates. This dynamic setting has endowed the country with a wide range of mineral systems, including porphyry copper, tin-tungsten belts, lead-zinc-silver veins, and gemstone-bearing metamorphic zones (Barley et al., 2022; Searle et al., 2023).

In the north, the Shan Plateau and Kachin State host extensive tin, tungsten, and HREE deposits, particularly in granitic terrains near Panwa, Chipwi, and Man Maw. These areas have high prospectivity for critical minerals used in global green technologies. In central Myanmar, the Monywa and Letpadaung regions contain large-scale porphyry copper systems, geologically similar to those found in Chile and Indonesia (Gardiner et al., 2018).

The Mogok Metamorphic Belt, stretching from Mandalay to the northern highlands, is globally renowned for its gemstones—especially rubies, sapphires, and spinels—formed in high-pressure, high-temperature conditions (Aung, H. L., & Zin, T. T., 2020). To the west, the Indo-Myanmar Ranges are believed to host underexplored potential for base metals and chromite (Hutchison et al., 2016).

Figure 2: Mineral resource distribution



The use of the map is for illustrative purposes only.

Source: MONREC, 2025

2 INSTITUTIONAL FRAMEWORK

The governance of Myanmar's minerals sector is structured through a coordinated framework involving several key government institutions, each with distinct roles in planning, regulation, licensing, oversight, and economic facilitation. Table 1 below summarises the respective roles of key entities, including the Ministry of Natural Resources and Environmental Conservation (MONREC), the Department of Mines, the Department of Geological Survey and Mineral Exploration (DGSE), Myanmar Gems Enterprise (MGE), the Myanmar Investment Commission (MIC), and the Environmental Conservation Department (ECD), as well as other actors involved in the sector.

Table 1: Overview of institutions responsible for mineral governance in Myanmar

INSTITUTION	ROLE
Ministry of Natural Resources and Environmental Conservation (MONREC)	The main regulator of the mineral and environmental sectors. Manages national policies, mine permit approvals and environmental monitoring
Department of Mines (under MONREC)	Responsible for licensing, mine inspection and the collection of mineral production data
Department of Geological Survey and Mineral Exploration (DGSE)	Conducts geological surveys, resource mapping and preliminary exploration for mineral reserves
Myanmar Gems Enterprise (MGE)	Manages the mining and export of gemstones (jade, rubies, sapphires) – the country's main source of foreign exchange
Myanmar Economic Holdings Limited (MEHL)	Operates large mines, particularly jade and copper. Controlled by the military, it is often not transparent
Myanmar Economic Corporation (MEC)	Active in resource exploitation and mining construction. Has extensive concessions and is involved in large contracts
Ethnic armed organisations (EAOs) – KIA, UWSA	Controls mines informally in conflict areas. Issues local permits and manages production and exports, particularly for rare earths and gemstones
Myanmar Investment Commission (MIC)	Approves foreign investment, including in the mining sector. Issues foreign business licences and determines ownership structures
Environmental Conservation Department (ECD)	Assesses environmental impact assessment (EIA) and social impact assessment (SIA) documents for mining projects

Source: MONREC, 2025

3 POLICY AND REGULATORY FRAMEWORK

Myanmar's mineral sector operates under the Mines Law (2015, amended 2018) and the Mines Rules (2018), which provide the primary legal foundation for licensing, exploration, extraction, and revenue-sharing. The Ministry of Natural Resources and Environmental Conservation (MONREC), through its Department of Mines and Geological Department, serves as the central authority for regulatory oversight.

The legal framework distinguishes between local and foreign investment, with foreign firms allowed to invest through joint ventures, subject to environmental impact assessments (EIAs) and production-sharing contracts (PSCs). Licence types include prospecting, exploration, feasibility, and large-scale production permits, each with specific terms and duration. The framework also includes environmental and community safeguards, although enforcement is weak in practice (National Commission for Environmental Affairs, Myanmar & UNEP Regional Resource Center for Asia and the Pacific, 2006; EarthRights International, 2025). A list of relevant laws and regulations is available in Appendix 1.

3.1. PERMITTING PROCESSES

The Mines Law (2015, amended 2018) governs Myanmar's mining permitting system, with the Mines Rules (2018) setting out a tiered licensing framework based on the scale and stage of mining activities. The permitting process is overseen by the Department of Mines under MONREC, with involvement from the Myanmar Investment Commission (MIC) for foreign and large-scale investments. Foreign companies are required to enter joint ventures with local partners or state-owned enterprises and must submit an environmental impact assessment (EIA) and social impact assessment (SIA) before mining approval is granted. The permitting process also requires approval from regional governments in decentralised frameworks. However, since the 2021 conflict, permitting processes have largely stalled in conflict zones.



Table 2: Categories of mining titles, relevant authorities and purpose

MINING TITLE/RIGHT	STAGE/PURPOSE	DURATION	RESPONSIBLE AUTHORITY
Prospecting permit	Initial surfacelevel surveys and reconnaissance	Up to 2 years	Department of Mines (DoM), MONREC
Exploration permit	Geological mapping, trenching, drilling and resource evaluation	3 years (renewable up to 8 years)	DoM, MONREC
Feasibility study permit	Technical and financial assessment (requires EIA/SIA)	1–2 years	DoM, Environmental Conservation Department (ECD)
Smallscale production permit	Mining at local/community scale	Up to 5–10 years	Regional DoM, MONREC
Mediumscale production permit	Midsize commercial mining, often with domestic or joint ventures	Up to 15 years	MONREC, Myanmar Investment Commission (MIC)
Largescale production permit	Major commercial operations, often with foreign investment	Up to 25 years (renewable)	MONREC, MIC, ECD (for EIA/SIA approval)
Gemstone permit (MGE-specific)	Specifically for jade, ruby, and sapphire mining and trading	Varies (typically 5–10 years)	Myanma Gems Enterprise (MGE), MONREC

Source: MONREC, 2025

3.2. FINANCIAL AND FISCAL REGIME

Myanmar's mineral sector operates under a state-ownership model of mineral resources, with private or foreign entities accessing them via licences and joint ventures. The fiscal regime is governed by the Mines Law (2015, amended 2018), Investment Law (2016), and tax regulations under the Internal Revenue Department (IRD) (MONREC, 2018; U.S. Department of State, 2024).

The investor is required to pay the government various taxes and non-tax fees, including dead rent (land rental fees), royalties, and a production-sharing contract (PSC) ratio. For foreign investments, the sharing ratio can be negotiated based on factors such as the investment amount, type of mineral, ore reserve, and cost of production. Corporate income tax is imposed at 22 percent on gross profit. Dead rent is charged at a specified rate based on the land surface area occupied, while the production-sharing ratio depends on the terms and conditions of the production-sharing contract. Additionally, the investor must contribute to a mine closure fund at 2 percent, an environmental protection fund at 1 percent, and a CSR fund at 1 percent (MONREC, 2025).

TAXATION AND ROYALTIES

Myanmar imposes mineral royalties based on the gross value of extracted resources, as regulated under the Mines Rules (2018). Royalty rates vary by commodity: industrial minerals are charged between 3 percent and 5 percent, base metals such as copper and lead incur a royalty of 5 percent to 7.5 percent, while precious metals like gold and silver are subject to rates of up to 10 percent. For gemstones, particularly jade and ruby, the royalty can reach 20 percent, on top of which additional auction fees and export duties apply. Royalties are paid monthly and are levied irrespective of a company's profit or loss. In theory, the system is standardised and nationally applied.



FISCAL STABILITY AND INVESTMENT INCENTIVES

Myanmar provides various fiscal incentives aimed at attracting investment in its mineral sector, especially for foreign and large-scale projects. According to the Myanmar Investment Law (2016) and in a process managed by the Myanmar Investment Commission (MIC), eligible investors can benefit from corporate income tax holidays of three to seven years, depending on the investment zone classification (Zones 1–3). They also enjoy customs duty exemptions on machinery, equipment, and materials during the construction and initial production phases, along with options for accelerated depreciation and a five-year loss carry-forward relief.

While the legal framework provides for fiscal stability guarantees—ensuring no sudden adverse tax changes for approved projects—the practical environment is uncertain. Since the 2021 conflict, investor confidence has fallen because of political risk, sanctions, and regulatory unpredictability. As a result, while Myanmar’s incentive structure appears competitive on paper, operational and governance risks remain a major barrier to long-term foreign investment in the extractive sector (World Bank, 2020; NRGI, 2021).

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Myanmar’s mineral value chain remains largely underdeveloped and focused on the extraction and export of raw materials, with minimal domestic processing or beneficiation (MCRB, 2020). The country is rich in high-value resources such as jade, tin, copper, gold, and rare earth elements, yet most are exported in unprocessed or semi-processed form, particularly to China and Thailand (EITI, 2020). Efforts to encourage downstream development—such as smelting, refining, and gemstone cutting—have been limited. A few domestic processing facilities exist, particularly in the copper and cement sectors, but they operate below capacity or face regulatory and infrastructural challenges (World Bank, 2020).

The government has repeatedly emphasised the importance of local value addition through policy documents, including provisions under the Mines Law (2015, amended 2018), which encourages investors to include processing and refining components in project plans. However, political instability, a lack of technology transfer and limited energy access continue to hamper any significant progress. Myanmar’s mineral value chain remains heavily export-oriented and vulnerable to price fluctuations, offering limited benefits to broader industrialisation goals or local job creation.

LOCAL CONTENT AND EMPLOYMENT

Local content requirements in Myanmar’s mining sector are encouraged but not strictly enforced through law. The Mines Rules (2018) and investment guidelines promote the hiring of Myanmar nationals and the use of locally sourced goods and services whenever feasible. However, there is no formal percentage quota or clear enforcement mechanism

for local labour or procurement. Local content remains a policy aspiration rather than a binding obligation, and the sector's contribution to sustainable job creation and skills development remains modest (NRGI, 2021).

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental management in Myanmar's mining sector is governed by the Environmental Conservation Law (2012) and the Environmental Impact Assessment (EIA) Procedure (2015). These regulations require all large-scale mining projects to conduct environmental impact assessments, submit environmental management plans (EMPs) and undergo public consultations before approval. However, enforcement remains weak and inconsistent. According to reports from UNEP (2022) and EITI (2020), many mining operations—especially jade and gold mining in Kachin, Sagaing, and Shan states—proceed with minimal oversight, often leading to deforestation, soil erosion, river pollution, and toxic waste from mercury and cyanide use. Myanmar's legal framework for environmental protection is in place, but implementation is fragmented and accountability is limited.

MINE CLOSURE AND POST-MINING TRANSITION

Myanmar's mining laws—particularly the Mines Rules (2018)—require companies to submit a mine closure plan as part of the permitting process. This includes technical, environmental, and social aspects of closure, as well as rehabilitation commitments. Companies are also expected to put in place a financial guarantee or reclamation bond to support post-mining activities. Myanmar's regulatory framework recognises the importance of mine closure, but implementation remains limited and institutional capacity is weak, particularly in conflict-affected and remote areas (National Commission for Environmental Affairs, Myanmar & UNEP Regional Resource Center for Asia and the Pacific, 2006; MCRB, 2020).

There is currently no national strategy for integrated post-mining transition, such as land repurposing, economic diversification or community reintegration programmes. Environmental NGOs and international observers have raised concerns about abandoned mine sites—particularly in jade- and gold-rich regions—which continue to pose health and environmental hazards (EarthRights International, 2025).

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Mining has the potential to contribute to local development in Myanmar, especially in remote and resource-rich regions. However, community benefits remain limited and unevenly distributed. While some large-scale mining projects provide jobs, local infrastructure, and corporate social responsibility initiatives, most operate without structured community development agreements (Petersen, 2024).

The Mines Law (2015, amended 2018) and the Environmental Impact Assessment (EIA) Procedure (2015) encourage community engagement and public consultation, but, in practice, local participation is minimal. Many affected communities—especially in conflict zones like Kachin and Sagaing—report displacement, land disputes, loss of livelihoods, and environmental degradation without adequate compensation or support. Artisanal and small-scale mining (ASM) provides income for tens of thousands of people, but often takes place informally, without any social protection, safety standards or tax contributions. Women and indigenous groups are particularly vulnerable to the social and health risks associated with unregulated mining (Myanmar Centre for Responsible Business, 2018).

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Community consultation in Myanmar's mining sector is legally required under the Environmental Impact Assessment (EIA) Procedure (2015). Projects with significant environmental and social risks must engage in public disclosure and consultations with affected communities during the planning stage. However, these processes are often inadequate, with limited transparency and restricted participation—especially in conflict-affected and ethnic minority regions (NRGI, 2021).

Myanmar does not mandate formal benefit-sharing mechanisms, such as community development agreements or revenue-sharing schemes. While some companies implement voluntary CSR projects, these are often short-term and non-binding, with little accountability or alignment with local needs.

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Myanmar's legal framework provides limited formal mechanisms for grievance redress in the mining sector. The Environmental Impact Assessment (EIA) Procedure (2015) includes provisions for communities to raise concerns during public consultations, and some investment contracts require the establishment of project-level grievance mechanisms. However, implementation is inconsistent and access to remedy remains weak.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Gender equity and social inclusion in Myanmar's mining sector remain significantly underdeveloped. There is no specific national policy or legal requirement mandating gender-responsive approaches in mining operations. While the Mines Law (2015, amended 2018) and the Environmental Impact Assessment (EIA) Procedure (2015) mention stakeholder engagement, they do not explicitly address gender or vulnerable group inclusion.

3.3.3. GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Although Myanmar became a member of the Extractive Industries Transparency Initiative (EITI) in 2014, the process was suspended in 2021 following the conflict, halting progress on transparency reforms. Prior to the suspension, EITI had helped disclose some data on licences, production volumes, and revenues—especially in jade, gems, and gold. However, data remained fragmented, outdated and hard to verify, with many operations—particularly in conflict-affected regions—operating informally or outside state control.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Myanmar is a signatory to several key international treaties and conventions relevant to environmental protection and human rights in the extractive industries. These include the Convention on Biological Diversity (CBD) and the UN Framework Convention on Climate Change (UNFCCC). Prior to its suspension, Myanmar participated in the EITI, promoting standards for revenue and contract transparency. The country also adopted elements of the OECD Due Diligence Guidance in its gemstone sector reform plans, though implementation was weak and has since stalled. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

Myanmar's mineral sector holds significant geological potential. Myanmar Investment Law (2016) and the Mines Law (2015, amended 2018) offer a legal framework for foreign participation—including provisions for tax incentives and 100 percent foreign ownership in large-scale operations. However, the investment climate remains highly constrained because of political instability, regulatory uncertainty, and conflict. Following the 2021 conflict, many foreign investors withdrew, and international sanctions further limited access to capital, technology, and global markets.

5 REFORMS AND STRATEGIC OUTLOOK

Myanmar's mineral sector has long been identified as a driver for national revenue and regional development. Prior to 2021, reform efforts focused on improving transparency, legal clarity, and investment attractiveness, including revisions to the Mines Law (2015, amended 2018), EIA procedures and participation in EITI. However, following the 2021 conflict, these reforms have stalled.

The strategic outlook is uncertain. Meaningful reform depends on a return to political stability, institutional rebuilding, and re-engagement with international norms. Without such shifts, the sector risks remaining informal, extractive, and a source of conflict rather than sustainable development (World Bank, 2020).

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COUNTRY PROFILE

PHILIPPINES

The Philippines has significant reserves of key minerals, including copper, gold, nickel, zinc, cobalt, and silver.

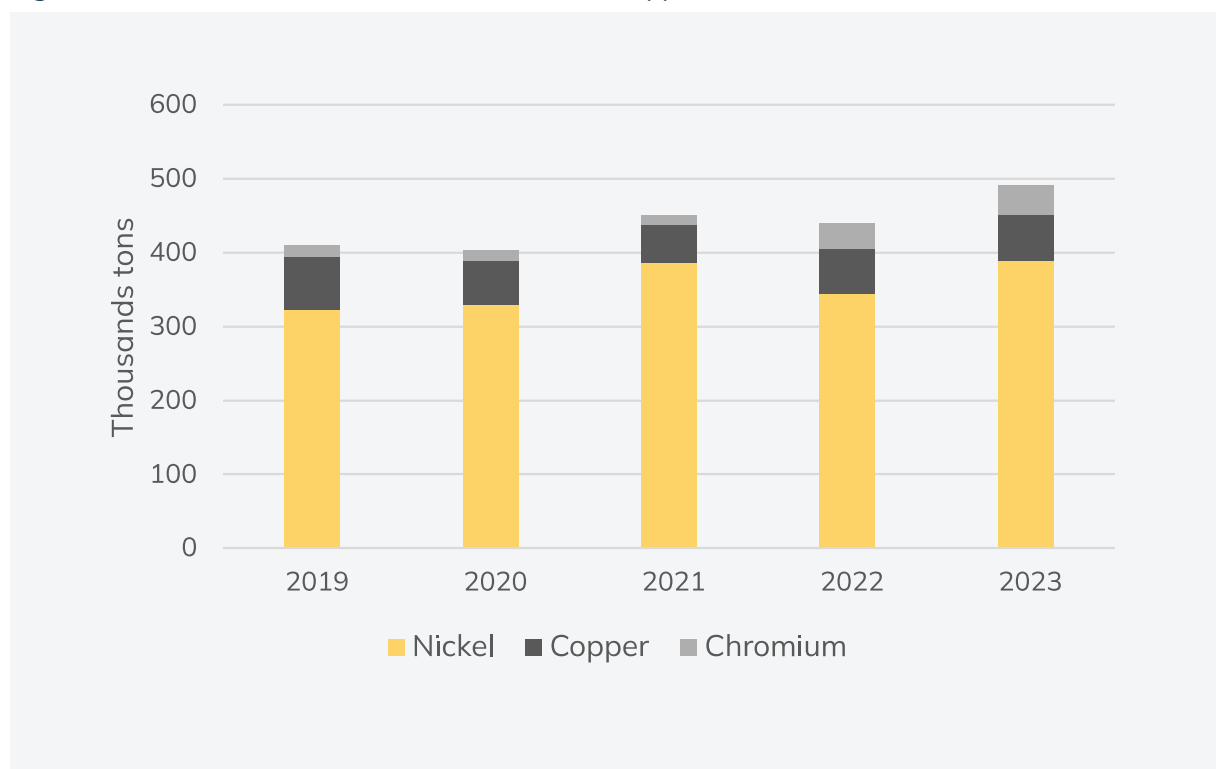
In 2024, the value of the country's gold, copper, nickel, and chromite reserves¹ reached more than PHP 480 billion (USD 8.4 billion),² a 4.6 percent rise on the previous year. Nickel reserves were valued at PHP 206 billion, followed by gold reserves, which rose to PHP 214 billion, copper (PHP 60 billion), and chromite (PHP 1.4 billion). Despite its rich mineral reserves, the mining sector contributes less than 1 percent of GDP. The government is reforming its fiscal regime and developing policies to build critical minerals industries in the country.

KEY HIGHLIGHTS

- + **Mineral resources:** copper, gold, nickel, zinc, cobalt, and silver
- + **Government priorities:** reforming the fiscal regime and developing critical minerals policies
- + **Recent successes:** In September 2025, the Philippines passed the Enhanced Fiscal Regime for Large-Scale Metallic Mining Act, significantly reforming its outdated mining tax system

¹ Refers to Class A reserves that are commercially recoverable mineral resources and which are confirmed to be economically viable by a defined development project or operation.

² Based on exchange rate of 1 PHP = 0.018 USD

Figure 1: Production of selected minerals in the Philippines, 2019–2023

Source: World Mining Data, 2025

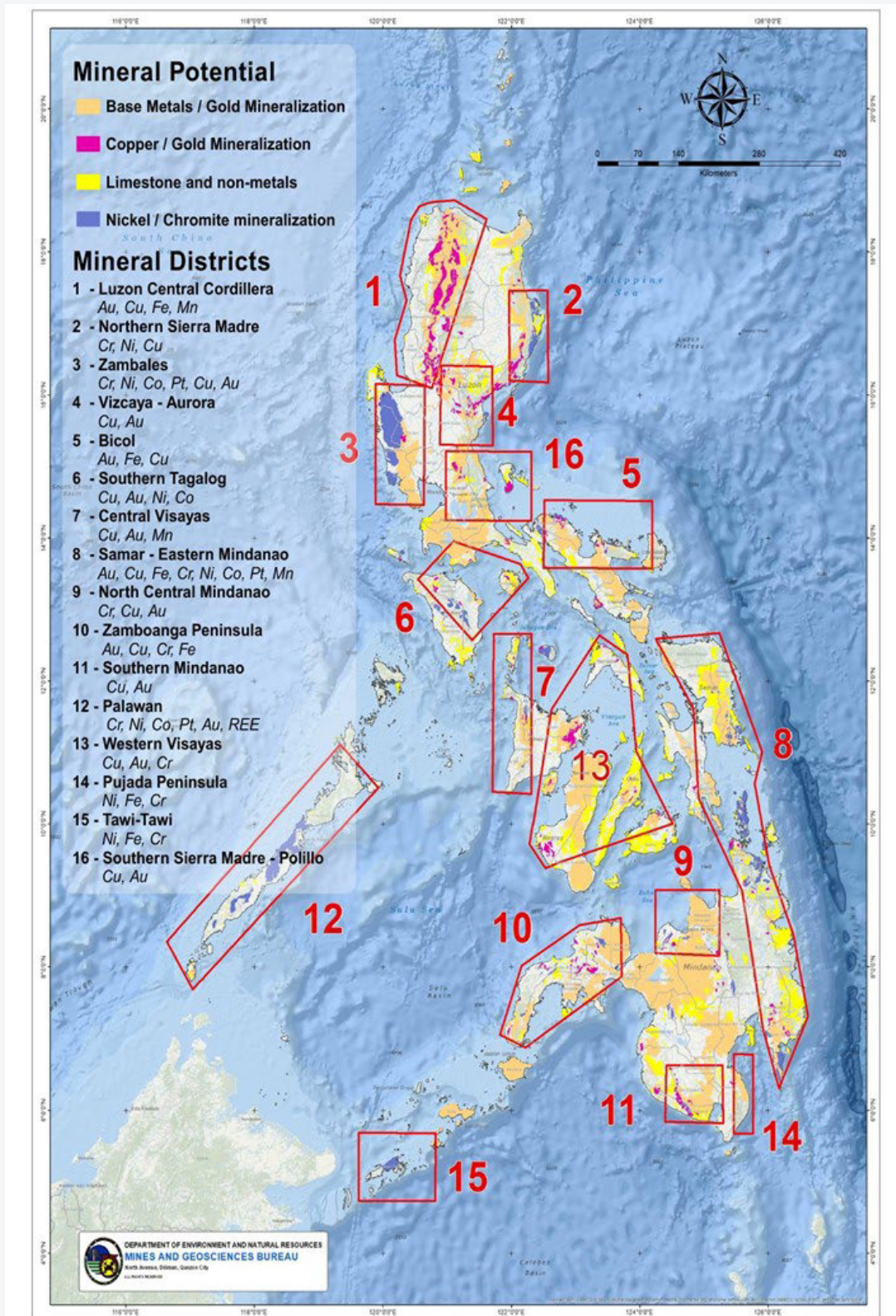
1 GEOLOGICAL CONTEXT

The Philippines is among the world's most mineralised nations, yet only about 5 percent of its high-potential areas have been explored. In 2024, the country maintained 58 operating metallic mines, including 36 nickel mines, 11 gold mines, 4 chromite mines, 4 iron mines, and 3 copper mines. The gross production value of metallic minerals reached PHP 252.9 billion in Year 2024, led by gold (PHP 126.4 billion), copper (PHP 27.2 billion), and nickel (PHP 56.7 billion) (Mines and Geosciences Bureau, 2025a).

GEOLOGICAL PROSPECTIVITY

The Mines and Geosciences Bureau (MGB), under the Department of Environment and Natural Resources (DENR), oversees the assignment of exploration permits (EPs) and mineral production sharing agreements (MPSAs), often prioritising state-led or strategic investigations before opening areas to public bidding. Geological data is accessible through the Philippine Geoportal, which is managed by the National Mapping and Resource Information Authority (NAMRIA), while hazard-related geospatial data is available via the PHIVOLCS Maps Portal and HazardHunterPH.

Figure 2: Mineral resources distribution



The use of the map is for illustrative purposes only.

Source: Mines and Geosciences Bureau, 2025b

2 INSTITUTIONAL FRAMEWORK

Mineral governance in the Philippines is anchored by a network of key institutions, each playing a vital role in regulating and promoting responsible management of the country's substantial mineral resources. Table 1 below outlines the main agencies involved, ranging from the Department of Environment and Natural Resources, which oversees mining policy and compliance, to the Mines and Geosciences Bureau, responsible for issuing permits and conducting geological surveys, and bodies such as the Environmental Management Bureau, the Mining Industry Coordinating Council, and others tasked with environmental oversight, indigenous rights protection, investment facilitation, and policy reforms.

Table 1: Key institutions responsible for mineral governance in the Philippines

INSTITUTION	ROLE
Department of Environment and Natural Resources (DENR)	Oversees mining policy, environmental compliance and permits
Mines and Geosciences Bureau (MGB)	Administers exploration permits, mineral agreements and geological surveys
Environmental Management Bureau (EMB)	Ensures adherence to environmental laws and impact assessments
Mining Industry Coordinating Council (MICC)	Coordinates policy reforms and monitors responsible mining practices
National Commission on Indigenous Peoples (NCIP)	Safeguards indigenous rights and oversees free, prior and informed consent (FPIC) processes
Department of Trade and Industry (DTI)	Facilitates investment and promotes mineral-based industrial development
Department of Economy, Planning and Development (DEPDev)	Integrates mining into national development and green transition strategies

Source: The Philippines Mining Act, 1995

3 POLICY AND REGULATORY FRAMEWORK

The Philippine mining sector operates under Republic Act No. 7942 (the Philippine Mining Act of 1995), which declares that all mineral resources are owned by the state and must be developed under its full control and supervision. This law is enforced via DENR Administrative Order No. 2010-21 and supplemented by other important legislation, such as Executive Order No. 79 (2012), promoting responsible mining and environmental safeguards; Executive Order No. 130 (2021), which removes the freeze on new mineral agreements in order to boost industry activity; Republic Act No. 8371 (the Indigenous Peoples' Rights Act), guaranteeing free, prior and informed consent (FPIC) for mining on ancestral lands; and Republic Act No. 7076 (the People's Small-Scale Mining Act) along with Presidential Decree No. 1899, which oversee artisanal and small-scale mining operations.

A list of relevant laws and regulations is available in Appendix 1.

3.1 PERMITTING PROCESSES

The mining permitting system in the Philippines is governed by Republic Act No. 7942 (Philippine Mining Act of 1995) and its implementing rules under DENR Administrative Order No. 2010-21. The Philippine system is multi-tiered, involving both national and local authorities. The MGB is the lead agency for issuing permits. At the same time, local government units (LGUs) play a critical role in regulating small-scale and quarry operations under Republic Act No. 7160 (Local Government Code) (Cruz Jr. and Gamo-Sisayan, 2025).



Table 2: Categories of mining titles, permitting process and relevant authorities

PERMIT TYPE	ISSUING AUTHORITY	PURPOSE
Exploration permit (EP)	MGB	Authorises exploration of mineral resources for up to six years
Mineral production sharing agreement (MPSA)	DENR secretary	Allows Filipino entities to extract minerals for 25 years, renewable
Financial or Technical Assistance Agreement (FTAA)	Office of the President	Grants foreign corporations rights for large-scale mining
Mineral processing permit (MPP)	DENR secretary	Authorises processing of minerals, valid for five years, renewable
Ore transport permit	MGB	Required for transporting unprocessed ores
Smallscale mining permit	Provincial/city mining board	Regulates artisanal mining within declared Minahang Bayan areas
Quarry permit/industrial sand and gravel	LGUs or MGB	Concerns the extraction of sand, gravel, limestone, and other quarry materials

Source: Cruz Jr. and Gamo-Sisayan, 2025; Pascual et al., 2020; GreenDev Solutions, 2024



3.2. FINANCIAL AND FISCAL REGIME

The Philippines enacted the Republic Act No. 12253, or the “Enhanced Fiscal Regime for Large-Scale Metallic Mining Act” in September 2025, marking a major overhaul of its outdated mining tax system (Department of Finance, 2025). The reform simplifies fiscal obligations, removes distinctions based on mining agreements, and introduces margin-based royalties and windfall profit taxes.

TAXATION AND ROYALTIES

The above mentioned Act introduced a five-tier royalty system based on margins, ranging from 1 percent to 5 percent for mines outside reservations. They also set a windfall profit tax of between 1 percent and 10 percent during commodity booms and included ring-fencing measures to prevent cross-project deductions. Furthermore, the bills banned raw ore exports after five years to encourage domestic processing. The Department of Finance projects these measures will generate an extra PHP 25.08 billion in revenue from 2026 to 2029.

Mining royalties are payments that mining companies make for the right to extract mineral resources owned by the state. These payments differ from taxes and are mainly regulated by the Philippine Mining Act of 1995 (RA 7942), with updates introduced through the Enhanced Fiscal Regime for Large-Scale Mining Act (2025). The royalty rate is set as a percentage of the gross output value, and these rates vary depending on the mining location.

Table 3: Minerals production royalty rates

MINING LOCATION	ROYALTY RATE	BASIS
Within mineral reservations	5%	Gross output value (Bunye and Evangelista, 2025)
Outside mineral reservations	1%–5%	Marginbased royalty system (Arangkada Philippines, 2025)
Additional royalty on indigenous peoples' ancestral land	1%	Gross output value

Source: Enhanced Fiscal Regime for Large-Scale Mining Act, 2025

FISCAL STABILITY AND INVESTMENT INCENTIVES

Despite the rise in royalty rates, the government persists in providing incentives to promote domestic mineral processing, especially for battery-grade nickel, copper, and cobalt. These incentives comprise reduced royalty fees for processed minerals, tax holidays, and duty exemptions under the Strategic Investment Priority Plan (SIPP) 2025–2028, infrastructure support for industrial zones with smelters and refineries, and reforms to simplify doing business by streamlining the permit application process and minimising regulatory delays.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

The Philippine government is focusing on downstream mineral processing to boost value addition, cut reliance on raw ore exports, and establish the country as a significant player in the global clean energy supply chain. This approach aligns with the Critical Minerals Strategy and the Strategic Investment Priority Plan (SIPP) 2025–2028, which aims to promote industrialisation through mineral-based manufacturing. Key policy actions supporting this include Senate Bill No. 2826, which seeks to ban raw mineral exports after a five-year transition; incentives from the Department of Trade and Industry and the Board of Investments for smelters, refineries, and battery material facilities; and recommendations from the Chamber of Mines for improved infrastructure and power support in industrial zones.

LOCAL CONTENT AND EMPLOYMENT

Foreign ownership in the mining sector is typically at 40 percent, with at least 60 percent Filipino ownership mandated by the 1987 Constitution and the Mining Act of 1995. However, under the Financial or Technical Assistance Agreement (FTAA), 100 percent foreign ownership is permitted for large-scale mining projects with presidential approval. The FTAA allows foreign companies to fully own large-scale mines, though they remain under state oversight. Industry efforts and proposals are under way to relax these restrictions in order to attract more foreign investment and boost technical expertise, considering the sector's capital-intensive nature and limited local funding. These regulations aim to balance national ownership with the need for foreign expertise and investment.

The Philippine government emphasises inclusive growth in mining by promoting local content, employment generation, and skills development. Mining companies are required to prioritise Filipino workers, source inputs from local suppliers, and invest in community development programmes under the Social Development and Management Program (SDMP) mandated by the Philippine Mining Act of 1995 (RA 7942). As of February 2025, the mining and quarrying sector employed 231,000 workers, up from 222,000 in January, according to the Philippine Statistics Authority (PSA)—less than 1 percent of the national workforce. This includes roles in operations, maintenance, engineering, and logistics, with growing demand for skilled labour in mineral processing and refining—particularly for nickel and copper, which are vital for electric vehicle (EV) batteries and clean energy technologies.

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

In the Philippines, environmental governance in the mining sector is anchored in several key laws and regulations that promote sustainable development and responsible resource use. Mining projects are subject to environmental impact statement (EIS) requirements and must secure an environmental compliance certificate (ECC) from the Department of Environment and Natural Resources. This certifies that a proposed project will not cause significant negative environmental impacts, or that such impacts can be mitigated through approved measures.

Despite the existing legal and policy framework, enforcement challenges persist. Critics argue that the Mining Act enables large-scale environmental degradation and fails to ensure adequate community protection and ecological sustainability (Center for Environmental Concerns - Philippines, 2025).

MINE CLOSURE AND POST-MINING TRANSITION

The legal foundation for mine closure in the Philippines is primarily established under Republic Act No. 7942 (Philippine Mining Act of 1995) and its implementing rules, notably DENR Administrative Order No. 96-40 (1996). These regulations require mining companies to prepare and implement an Environmental Protection and Enhancement Program (EPEP), a Final Mine Rehabilitation and Decommissioning Plan (FMRDP), and progressive rehabilitation throughout the mine's operational life. The law emphasises that mining is a temporary land use, and post-mining land should be restored for optimal future use through engineered rehabilitation efforts. The DENR mandates that closure plans include environmental restoration, safety measures, and community development strategies.

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

CSR embedded in the Philippine Mining Act of 1995 (RA 7942) requires mining companies to implement Social Development and Management Programs (SDMPs). However, the law has been criticised for limited community participation and corporate-led implementation of SDMPs (Villanueva, 2024).

Mining companies are mandated to allocate at least 1.5 percent of their annual operating costs to fund these programmes. This budget is distributed across three key components: Development of Host and Neighbouring Communities (DHNC), Development of Mining Technology and Geosciences (DMTG), and Information, Education and Communication (IEC) programmes. One example is Philex Mining Corporation, which has implemented SDMPs in Benguet province. The initiatives include scholarship programmes, medical missions, road construction, and water system development (Angeles-Mendoza et al., 2020).

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

The Philippine mining sector faces persistent challenges in community consultation, participation, and benefit-sharing, shaped by national laws such as the Philippine Mining Act of 1995 (RA 7942) and local governance dynamics. While the Indigenous Peoples' Rights Act (RA 8371) provides frameworks for community development and free, prior and informed consent (FPIC), gaps remain in implementation. One example is nickel operations in Zambales and Palawan, which were approved despite inadequate consultation and serious health and environmental risks. Reports show that opposing community members were excluded, while others were ignored or misled about project impacts (Amnesty Philippines, 2025).

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

The Philippines has formal grievance mechanisms embedded in its legal framework, including administrative and judicial channels. Laws such as the Indigenous Peoples' Rights Act (RA 8371) and the Local Government Code (RA 7160) provide avenues for communities to raise concerns. Additionally, the Civil Service Commission's Memorandum Circular No. 02, 2001, outlines grievance procedures for public sector disputes, emphasising resolution at the lowest level and protection from reprisals. However, these mechanisms are often undermined by weak enforcement, limited transparency, and the prioritisation of mining interests.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Although national gender policies such as the Magna Carta of Women (RA 9710) and gender and development (GAD) mandates promote inclusion, their implementation within mining operations is often minimal. Gender participation in the Philippine mining sector remains limited, with the industry largely dominated by men. Women are primarily involved in informal roles or community-level support activities, rather than occupying technical or leadership positions. Women in the sector face several key challenges, including workplace gender inequalities, limited access to alternative livelihoods outside of mining employment, and the absence of clear guidelines for integrating genderresponsive projects into Social Development and Management Programs (Department of Environment and Natural Resources, 2023).

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Since 2013, the Philippines has been a committed participant in the Extractive Industries Transparency Initiative (EITI), regularly publishing reports that detail mining revenues, licensing data, and beneficial ownership. However, in the 2024 EITI Validation, the country received a moderate score, with recommendations to improve the publicly accessible mining licence register and stakeholder engagement. While production and export statistics are available online through the Mines and Geosciences Bureau, full contract texts, EIAs and social development programmes are not consistently disclosed. Data fragmentation across agencies and inconsistent updates continue to hinder public oversight.

The Philippines has made progress in financial transparency by improving revenue-sharing mechanisms and reporting standards. Yet, challenges remain, including regulatory inconsistencies, limited capacity at the local government level and corruption risks in licensing and enforcement. The country's multi-stakeholder group under EITI includes active civil society participation, but gaps persist in translating disclosed data into accountability.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Environmental, social and governance (ESG) reporting is increasingly emphasised in the Philippines, especially for publicly listed mining companies. While ESG disclosures are encouraged, they are not yet legally mandated for all private firms. The DENR has been actively promoting a green transition in the mining sector, aligning operations with international sustainability frameworks such as the Paris Agreement, the Convention on Biological Diversity, the Sustainable Development Goals (SDGs), and the Sendai Framework for Disaster Risk Reduction. The DENR also mandates Social Development and Management Programs, which now include climate action and biodiversity conservation for host communities.

The Philippines is a signatory to several key international treaties, including the UN Convention against Corruption, ILO conventions on labour rights and safety, and the UN Framework Convention on Climate Change. However, domestic enforcement of these treaties remains uneven, particularly in areas such as transparency, human rights, and environmental protection. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

In 2025, the DENR introduced Administrative Order (DAO) No. 2025-17 in the Philippines, which updates the regulatory framework for the mining sector. Its purpose is to modernise and simplify the procedures for mineral agreements, exploration permits and mining rights and responsibilities under the Philippine Mining Act of 1995 (Republic Act No. 7942). DAO 2025-17 seeks to streamline the regulatory process through digitalisation and the faster processing of mining permit applications, while also promoting responsible and sustainable mining practices with enhanced environmental and social safeguards.

On 8 November 2024, the CREATE MORE Act was enacted into law. This legislation offers corporate recovery measures and tax incentives for businesses, including those in the mining industry, to boost economic revitalisation. The Act aims to create jobs and foster economic growth. It expands upon the previous CREATE Act by improving the tax system and incentive structure to draw both domestic and international investments, especially in strategic sectors.

5 REFORMS AND STRATEGIC OUTLOOK

The Philippines is reforming its mining fiscal regime in order to create a fair and equitable mining environment for all stakeholders. This reform aims to ensure that the benefits and responsibilities of mining are balanced among the government, mining companies and local communities, fostering a transparent and supportive environment for sustainable mining activities.

A draft Executive Order (EO) outlining a National Policy Framework for building a critical minerals industry in the Philippines is being proposed. This EO aims to create a comprehensive policy promoting the responsible and sustainable extraction of critical minerals, vital for the global shift to clean energy, digital progress and infrastructure growth. The policy emphasises prioritising critical minerals, encouraging investment and fiscal stability, easing business processes, supporting value addition, and downstream activities, enhancing governance and accountability, and developing strategic partnerships.

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COUNTRY PROFILE

SINGAPORE

Although Singapore does not have any domestic mining operations, it plays a critical role in regional mineral development through investment, trade facilitation, and policy coordination under the ASEAN Minerals Cooperation platform.

Singapore is a leading commodity trading hub in Asia and home to many global companies in mining and trading of metals and minerals. Singapore's deep financial services ecosystem, strong legal system, and excellent connectivity to the region has also made it a financing and investment hub for the minerals sector in ASEAN. Singapore is also a major player in high-technology manufacturing and activities, such as semiconductor chip production, and engages in circular economy activities, like scrap metal trading and recycling.

KEY HIGHLIGHTS

- + Singapore is a major commodity trading hub, including for key energy transition minerals (e.g. copper, nickel, and lithium)
- + Singapore is an investment and financing hub for ASEAN
- + Singapore is a major player in high-technology manufacturing

1 ENABLING ENVIRONMENT FOR INVESTMENT AND TRADE

Singapore ranks second globally for ease of doing business, with streamlined procedures, digitalised systems, and efficient permit timelines. It offers a single-window system for company registration via the Accounting and Corporate Regulatory Authority (ACRA) and sector-specific approvals through agencies such as the Economic Development Board (EDB) (Singapore Economic Development Board, 2023). Known for its political stability, strong rule of law, and regulatory transparency, Singapore consistently ranks high in global governance indices and provides a stable environment for long-term investment.

Singapore has ratified 44 bilateral investment treaties (BITs) and 28 free trade agreements (FTAs) with investment chapters. It is a signatory to the International Centre for Settlement of Investment Disputes (ICSID) and the New York Convention, hosting arbitration institutions like the Singapore International Arbitration Centre (SIAC) and the Singapore International Dispute Resolution Academy (SIDRA), making it a preferred dispute resolution hub. The market is mainly driven by private and multinational firms, with limited state-owned enterprise involvement in mineral trading, thereby promoting open access and competition for foreign investors.

Singapore is actively establishing itself as a premier financial hub for green and sustainable finance in Asia. The Monetary Authority of Singapore (MAS) is playing a leading role in developing and launching initiatives including Singapore's sustainable financing taxonomy, known as the Singapore-Asia Taxonomy for Sustainable Finance, the world's first multi-sector taxonomy covering both environmental and transition activities (Monetary Authority of Singapore, 2023). The country's reputation as a financial hub facilitates the efficient flow and sourcing of investments.

Singapore is known for its world-class infrastructure, including Changi Airport, one of the world's main transshipment port, and logistics networks supporting mineral storage, processing, and distribution. While it lacks domestic mining activities, Singapore has some local processing in facilities such as the Metalor gold refinery and for recycling used batteries. Tax incentives, such as goods and services tax (GST) exemptions for investment-grade metals, promote value addition.



2 REFORM AND STRATEGIC OUTLOOK

Singapore is actively positioning itself as a strategic hub for critical minerals investment and trade, which is essential for the global green transition. The government is investing in innovation, environmental, social and governance (ESG) infrastructure and regional partnerships, including the Singapore Green Plan 2030 and carbon pricing mechanisms, to support sustainable development (Kho and Ji, 2023). As part of its strategic outlook, Singapore is exploring its role as a regional clean energy and minerals hub, leveraging its financial sector to catalyse green investment across the ASEAN region.

3 INSTITUTIONAL FRAMEWORK

Table 1 below presents a summary of key Singapore institutions responsible for mineral and metal trading and investment.

Table 1: Key institutions responsible for mineral and metal trading and investment in Singapore

INSTITUTION	ROLE
Enterprise Singapore (Enterprise SG)	Government agency in charge of strengthening Singapore's position as a global commodity trade hub, facilitating trade in minerals and metals, energy, agri-commodities, electronics and emerging sectors like biofuels and carbon credits trading. Through its vibrant trade ecosystem and incentives, nearly 400 global trading firms have set up in Singapore
Singapore Economic Development Board (EDB)	Government agency in charge of investment promotion and attraction, as well as industry development and transformation
Accounting and Corporate Regulatory Authority (ACRA)	Government agency overseeing Business Registration and Regulation, Financial Reporting and Compliance Standards
Singapore International Arbitration Centre (SIAC)	Independent international arbitration institution providing neutral, efficient and reliable dispute resolution services to global business community
Inland Revenue Authority of Singapore (IRAS)	Government agency that administers taxes and compliance enforcement

Source: Enterprise Singapore, n.d.; Singapore Economic Development Board, n.d.

4 POLICY AND REGULATORY FRAMEWORK

Singapore lacks a domestic mining industry but has a legal framework for offshore mineral activities through the Deep Seabed Mining Act 2015, governing exploration beyond national jurisdiction under the United Nations Convention on the Law of the Sea (UNCLOS). It issues licences for Singapore entities, ensures environmental safety and meets international obligations, with oversight provided by the Attorney-General's Chambers, including safeguards and dispute resolution (Deep Seabed Mining Bill, 2015).

In addition, Singapore introduced strong anti-money laundering rules for precious stones and metals through the Precious Stones and Precious Metals (Prevention of Money Laundering, Terrorism Financing and Proliferation Financing) Act 2019 (PSPM Act) and its supporting regulations, including PSPM regulation (2019), Guidelines for regulated dealers, and Monetary Authority of Singapore (MAS) Notice PSM-N01. The Act and its supporting regulations serve as the main compliance structure for regulated dealers, such as jewellers, bullion traders and intermediaries, and is aimed at preventing illicit financial activities. A list of relevant country-level laws and regulations can be found in Appendix 1.

4.1 PERMITTING PROCESSES

Singapore has a permitting framework for offshore mineral activities and mining-related businesses. The Deep Seabed Mining Act 2015, managed by the Attorney-General's Chambers, regulates exploration and exploitation in international seabed areas under UNCLOS.

4.2 FINANCIAL AND FISCAL REGIME

Singapore's fiscal framework for mining is driven by its status as a global financial hub rather than a domestic mining jurisdiction. Although it lacks large-scale mineral extraction, it supports mining-related enterprises with competitive taxes and international compliance.

TAXATION AND ROYALTIES

Singapore levies a flat corporate income tax rate of 17 percent on chargeable income for both resident and non-resident companies. Furthermore, Singapore employs a single-tier tax system, meaning dividends distributed by resident companies are exempt from additional taxes in the shareholders' hands.

Singapore's Goods and Services Tax is a consumption tax levied on most imported goods and collected by Singapore Customs at the point of importation. Effective from 1 January 2024, the GST rate in Singapore is 9 percent. This tax is calculated based on the cost, insurance and freight (CIF) value. Shipping companies with Singapore-registered ships are exempt from tax on income generated from ship operations outside Singapore's ports, such as transporting goods and passengers, towing, salvage, chartering, and selling Singapore ships (Singapore Customs, n.d.).

FISCAL STABILITY AND INVESTMENT INCENTIVES

In order to attract foreign direct investment (FDI) in resource-linked industries like energy, commodities, and offshore minerals, the government offers tax incentives such as the Global Trader Programme (GTP), the Development and Expansion Incentive (DEI), the International Headquarters (IHQ) Programme, and schemes with concessionary tax rates or full exemptions for high-value activities. Capital investment deductions, such as the Investment Allowance, allow up to a 100 percent deduction on expenditure like machinery, automation, and research and development (R&D). In addition, Singapore does not impose withholding tax on dividends to non-residents unless specified by a treaty (Inland Revenue Authority of Singapore (IRAS), n.d.).

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Singapore plays a pivotal role in the global semiconductor sector as a key manufacturing and innovation hub, producing 10 percent of the world's output and 20 percent of its manufacturing equipment (Singapore Economic Development Board, n.d.). The downstream semiconductor sector is a crucial part of its broader semiconductor ecosystem, showcasing advanced assembly, testing and packaging (ATP) capabilities alongside integrated circuit design services. The sector accounts for about 7 percent of the nation's GDP and employs over 35,000 people, establishing Singapore as a key player in the global semiconductor supply chain, producing one in 10 chips worldwide and a fifth of global semiconductor equipment (Agency for Science, Technology and Research Singapore, 2025). The country hosts major outsourced semiconductor assembly and test (OSAT) companies, such as Advanced Semiconductor Engineering Inc. (ASE Group), Jiangsu Changjiang Electronics Technology Group (JCET) and United Test and Assembly Center (UTAC) (DBS Group, 2023).

LOCAL CONTENT AND EMPLOYMENT

The 2024 Comprehensive Labour Force Survey by the Ministry of Manpower (MOM) shows no specific occupational category for mining and quarrying, indicating its minimal role in the labour market. Quarrying activities, including the extraction of granite and sand, are still conducted in small areas such as Pulau Ubin and Mandai, primarily to meet construction and infrastructure demands.

In the trading and manufacturing sectors, Singapore has a wealth of talent employed in professional, managerial, executive and technical (PMET) positions, such as trading professionals, commodity traders and brokers, and supply chain and procurement specialists (Committee on the Future Economy, 2017). With a multicultural and diverse workforce, Singapore is a favoured destination for multinational enterprises to set up their regional and headquarters (HQ) offices to oversee sales, marketing and trading operations (Singapore Economic Development Board, n.d.).

4.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

4.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Singapore functions as a global commodity trading hub. For listed companies in Singapore, investment governance is supported by the Singapore Exchange's sustainability reporting requirements and ESG initiatives led by the Monetary Authority of Singapore, including the Green Finance Action Plan, which emphasise disclosure and consideration of climate and environmental risks in mining-related investments.

4.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Singapore does not require mining companies to implement sector-specific CSR programmes, but social responsibility is part of broader ESG and sustainability standards. Companies involved in mineral trading and investments are encouraged to adopt CSR practices that promote community development, ethical labour standards and environmental protection. The SGX mandates listed companies to disclose social impact initiatives, labour practices and community engagement in their sustainability reports. The MAS also advises financial institutions to assess social risks in investments. While not legally required, CSR is widely practised, with many companies voluntarily supporting education, inclusivity, and local development.

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Singapore prioritises grievance redress and conflict prevention in mineral trading by establishing strong legal and institutional frameworks that promote transparency, accountability and ethical conduct throughout the supply chain. SGX-listed companies regulated by the Monetary Authority of Singapore must disclose detailed environmental and social risks, including stakeholder engagement and dispute resolution mechanisms, ensuring proactive management of potential adverse impacts.

As a leading global arbitration centre through institutions such as the Singapore International Arbitration Centre Singapore efficiently handles complex cross-border mining disputes through internationally recognised frameworks such as the United Nations Commission on International Trade Law (UNCITRAL) and the International Centre for Settlement of Investment Disputes (ICSID), fostering investor confidence and fair conflict resolution. In addition to regulatory measures, firms are expected to adhere to the OECD Guidelines for Responsible Mineral Supply Chains to avoid sourcing minerals linked to conflict and human rights abuses. Many companies have also introduced grievance mechanisms, such as supplier ombudspersons, to address complaints and support ethical practices within their supply chains.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Singapore's legal framework promotes non-discrimination and equal opportunities, encouraging companies to adopt gender-responsive ESG policies, stakeholder engagement, and supply chain due diligence aligned with OECD and UN standards to protect rights and promote inclusion across mineral investments.

In Singapore, gender equity and social inclusion mining are shaped by its role as a global financial and legal hub in mineral and metal trading and investment. A PwC and Women in Mining and Resources Singapore study (PwC, 2016) found that women constitute a substantial portion of the workforce in Singapore's mining and resources sector, with 50 percent of companies stating that more than half their employees are women. This figure is notably higher than the global industry average, where female representation typically ranges from 21 percent to 30 percent (PwC, 2016).



4.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Singapore is globally recognised for its strong anti-corruption framework, ranking third out of 180 countries in Transparency International's 2024 Corruption Perceptions Index (Transparency International, 2024). While the country does not produce minerals, it plays a key role in mineral trading and investment through its financial and legal institutions. Governance in this space is supported by robust ESG disclosure requirements enforced by the SGX and the MAS. All SGX-listed companies must publish annual sustainability reports under a "comply or explain" rule, with mandatory climate-related disclosures phased in from 2025.

ESG reporting frameworks, such as the Global Reporting Initiative (GRI), the Task Force on Climate-related Financial Disclosures (TCFD), and the International Sustainability Standards Board (ISSB), are broadly adopted in Singapore to guide companies in disclosing their ESG impacts and risks. The Monetary Authority of Singapore has introduced a code of conduct specifically for ESG rating and data providers in order to improve transparency and accountability in the ESG data market. This voluntary code establishes baseline industry standards focused on transparency in methodologies and data sources, governance, and managing conflicts of interest that could compromise reliability and independence in assessing climate transition risks and opportunities.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Singapore aligns its mineral trading and investment practices with international ESG standards such as the International Finance Corporation (IFC) performance standards, the Global Reporting Initiative, the Task Force on Climate-related Financial Disclosures and the International Sustainability Standards Board. The SGX requires climate disclosures, with full compliance needed by the 2025 financial year for high-risk sectors, including mining. Singapore ratified conventions on labour standards, occupational safety and child labour, and supports the UN Convention against Corruption and the Paris Agreement through various policies and carbon pricing. However, ESG enforcement in overseas investments relies on corporate governance and investor diligence, as Singapore does not regulate foreign mining. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

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COUNTRY PROFILE

THAILAND

Thailand's mineral production landscape is dominated by non-metallic minerals such as limestone, gypsum, and basalt, which serve as essential raw materials for the construction industry. The sector also includes significant production of metallic minerals such as iron, manganese, tungsten, tin, and gold.

In 2023, GDP from mining and quarrying reached approximately THB 84.76 billion (accounting for less than 1 percent of total GDP) (Ciba, 2025). The government is focusing on strengthening the mineral supply chain, boosting exploration and incentivising downstream development, linking with its wide manufacturing base.

KEY HIGHLIGHTS

- +** **Mineral resources:** gypsum, limestone, potash, lithium, tin, iron
- +** **Government priorities:** strengthen the mineral supply chain, boosting exploration and downstream development
- +** **Recent successes:** the discovery of significant lithium deposits, essential for the green transition

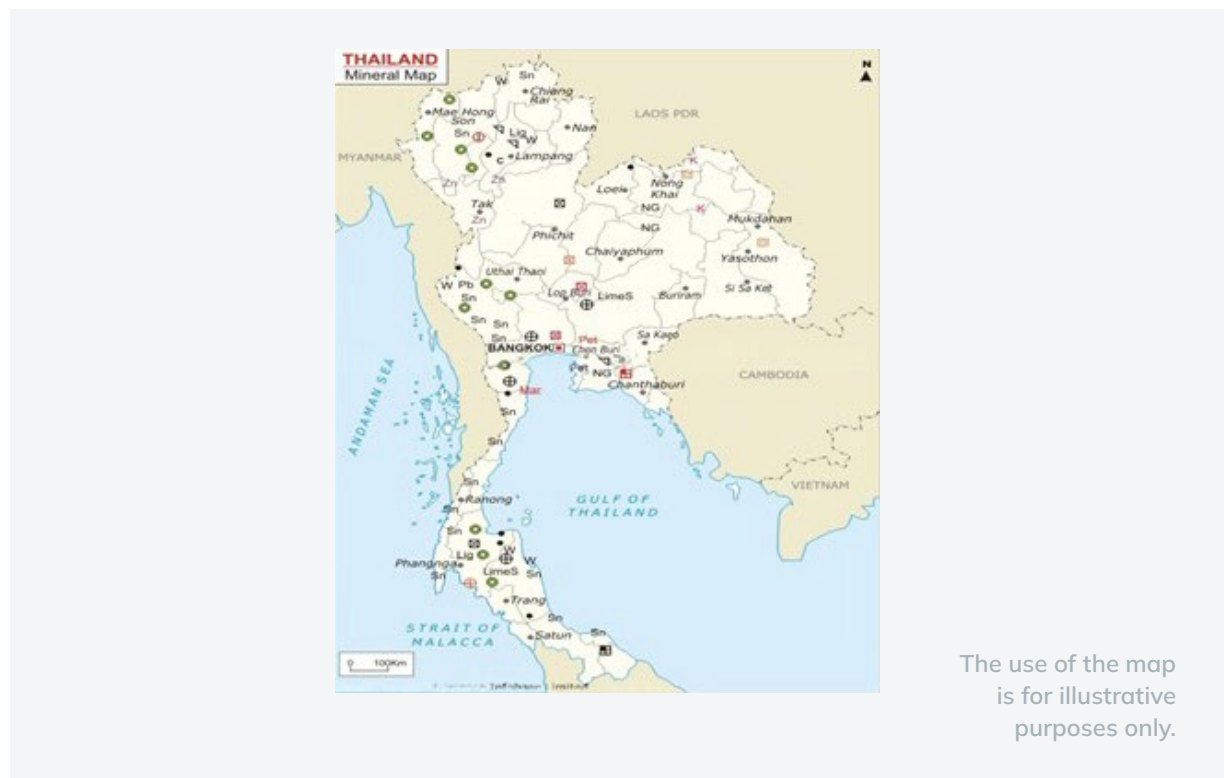
1 GEOLOGICAL CONTEXT

Thailand harbours over 30 trillion tonnes of mineral reserves, valued at THB 44,410 trillion, according to the Department of Mineral Resources (DMR). These include industrial minerals (limestone, gypsum, basalt, and granite), metallic minerals (tin, tungsten, iron, gold, and copper) and strategic minerals (potash, lithium, and quartz). Thailand's mineral wealth is geographically diverse, with concentrations of different resources across the country. It is estimated to have 10 billion tonnes of potash in the Northeast region (ASEAN Now, 2024), a historic tin belt, active gold mining in the Upper Central Plain, lignite for power in the North and quartz for electronics in the West (ERIA, 2017). According to the Department of Primary Industries and Mines (DPIM), Thailand had 478 active mines in 2023, of which 471 were industrial mineral mines and seven were metallic mines, including four for iron, one for manganese and two for tin.

GEOLOGICAL PROSPECTIVITY

The Department of Mineral Resources (DMR) oversees basic geological surveys and provides public access to mineral data via its official portal <https://www.dmr.go.th/en/home/>. The Department of Primary Industry and Mines (DPIM) is responsible for granting prospecting and exploration licences as well as regulating the prospecting and exploration works of licence holders. It also publishes a map of prospecting and mining licences at <https://gisweb.dpim.go.th/main/>.

Figure 1: Mineral resource distribution in Thailand



Source: Maps of World, 2007

2 INSTITUTIONAL FRAMEWORK

Thailand's mining sector is governed by a range of key institutions that oversee everything from permitting and safety to investment incentives and environmental oversight. Table 1 summarises the specific responsibilities and roles of each of these bodies, illustrating how coordination among them underpins the country's mining governance framework.

Table 1: Overview of key institutions in Thailand's mining industry

INSTITUTION	ROLE
Department of Primary Industries and Mines (DPIM)	Grants licences for prospecting, exploration, mining, mineral processing, metallurgical works and mineral import/export under the Minerals Act; regulates and oversees prospecting, exploration, mining, mineral processing, metallurgical works and mineral import/export under the Minerals Act; promotes improvements and builds the capacity of the mining sector; oversees mineral policies and strategies with DMR
Department of Mineral Resources (DMR)	Conducts geological surveys, resource mapping, and data dissemination; oversees mineral policies and strategies with DPIM
National Mineral Management Policy Commission	Develops national strategies and master plans for mineral development
Minerals Committee	Approves special prospecting licences, and category 2 and category 3 mining licences
Provincial Minerals Committee	Approves category 1 mining licences
Ministry of Industry	Supervises DPIM and provincial industry offices; sets industrial policy and investment rules
Office of Natural Resources and Environmental Policy and Planning (ONEP)	Responsible for the environmental impact assessment (EIA) and environmental health impact assessment (EHIA) approval process for mining projects
Board of Investment (BOI)	Provides investment incentives for exploration, mining, mineral processing, and downstream industries

Source: DPIM, 2025

3 POLICY AND REGULATORY FRAMEWORK

Thailand's mining sector is governed by the Minerals Act B.E. 2560 (2017), which updated previous laws, including those from 1966 and 1967. It details procedures for exploration, mining, environmental compliance, and community engagement. The law creates the National Mineral Management Policy Commission to propose strategies for balanced mineral development. It decentralises some permitting to provincial authorities but retains oversight by the Department of Primary Industries and Mines (DPIM) under the Ministry of Industry. Foreign ownership is typically capped at 60 percent, unless through joint ventures with Thai firms, as set out in the Foreign Business Act B.E. 2542 (1999) (DPIM, 2009). A list of relevant country-level laws and regulations is available in Appendix 1.

3.1. PERMITTING PROCESSES

Thailand's mining licensing system is governed by the Minerals Act (2017), which modernised the regulatory framework for mineral exploration, extraction, processing, and trade. Unlike Indonesia's centralised model, Thailand's system is tiered and decentralised, with responsibilities shared between national and provincial authorities. The key features of Thailand's permitting system are as follows:

- The state owns all mineral resources, and mining rights are granted through concession-based permits.
- Licences are categorised by scale and complexity (defined under Sections 45–47 of the Minerals Act B.E. 2560 (2017)):
- **Category 1:** Small-scale mining (less than or equal to 100 rai (approximately 16 hectares)), issued by the Provincial Industrial Office under the approval of the Provincial Minerals Committee
- **Category 2:** Medium-scale mining (less than or equal to 625 rai (approximately 100 hectares)), issued by DPIM under the approval of the Minerals Committee
- **Category 3:** Large-scale, underground or offshore mining, issued by DPIM under the approval of the Minerals Committee

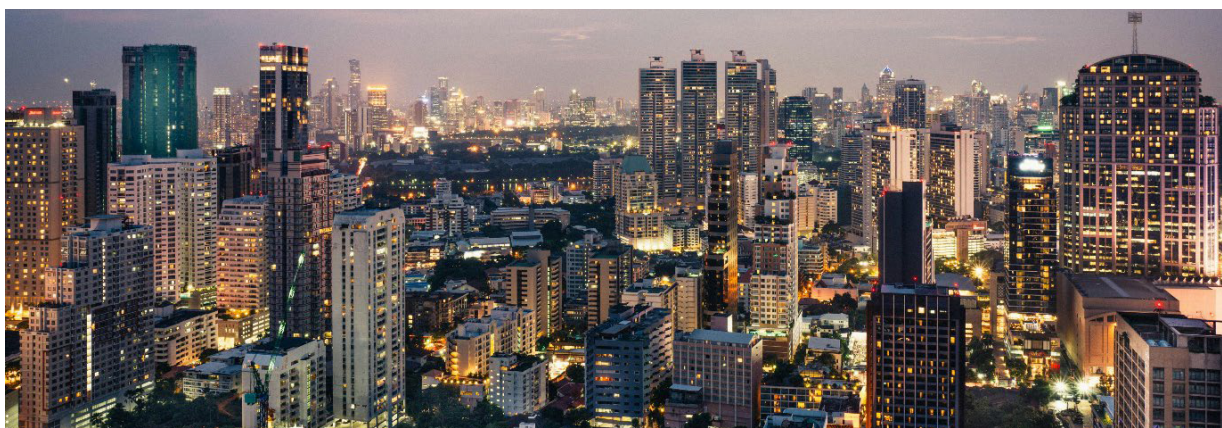


Table 2: Categories of mining titles, permitting process and relevant authorities

PERMIT TYPE	VALID DURATION	ISSUING AUTHORITY	PURPOSE
General prospecting licence (GPL)	1 year	Local administrative organisation	Nonexclusive surface exploration
Exclusive prospecting licence (EPL)	Up to 2 years	DPIM	Exclusive rights for a defined area (less than or equal to 2,500 rai (approximately 400 hectares))
Special prospecting licence (SPL)	Up to 5 years	DPIM	For largescale or offshore exploration
Mining licence (<i>prathanabat</i>)	Up to 30 years	Provincial Industrial Office/ DPIM	Extraction rights for approved mineral areas
Mineral processing licence	5 years	DPIM	Processing and beneficiation of extracted ores
Mineral transport licence	Per time	DPIM	Required for moving minerals offsite
Mineral export/ import licence	Per time	DPIM	For crossborder mineral trade

Source: Chandler Mori Hamada Limited, 2022; DPIM, 2009

3.2. FINANCIAL AND FISCAL REGIME

Thailand's mining fiscal framework is governed by the Minerals Act (2017) and relevant ministerial regulations. Thailand maintains a stable but increasingly progressive fiscal regime aimed at balancing state revenue with investment incentives.

TAXATION AND ROYALTIES

Corporate income tax of 20 percent applies to mining companies—similar to other industries. Thailand's mineral royalty framework, governed by the Minerals Act B.E. 2560 (2017), seeks to ensure fair compensation to the state while providing fiscal predictability for investors. Royalties are calculated as a percentage of the market value per metric tonne of the mineral, with prices officially announced by the director-general of DPIM. This price-linked system links royalty rates to the type of commodity, its grade and current global market prices, thereby enhancing transparency and aligning state revenue with the actual mineral value.

To avoid excessive fiscal burdens, the law sets a maximum limit where royalty rates cannot exceed 30 percent of the market price. Furthermore, mining licence holders are required to pay a special contribution of up to 10 percent of the royalty amount, which serves as an additional fiscal channel for public benefit related to local development, research on minerals, mine rehabilitation, and the prevention of Minerals Act violations. A special payment, amounting to 5 percent of the total mineral value of the site, is collected and can only be used for exploration and research on minerals and to facilitate the mine's rehabilitation.

Table 3: Mineral production royalty rates

MINERAL TYPE	DETAIL	RATE
Ores	Rock salt, graphite, quartz, calcite, dickite, lignite, glass sand, talc, bentonite, pyrophyllite, phosphate, mica, dimension stone, marble	4%
	Garnet, xenotime, zircon, monazite, rutile, leucoxene, iron, ilmenite, potash, cement industrial rock	7%
	Clay, kaolin, dolomite, barite, fluorite, feldspar, manganese, gypsum, anhydrite, industrial rock • domestic use • export	4% 7%
	Silver, copper, columbitetantalite, antimony, molybdenite, staurolite	10%
	Lead, zinc (progressive rates on prices)	2%–15%
	Tin, tungstic oxide, gold (progressive rates on prices)	2.5%–20%
Metals	Cadmium, lead, copper, antimony, zinc, iron, columbium-tantalum	4%

Source: Ministerial Regulation on Specifying Mineral Royalty Rate B.E.2561

FISCAL STABILITY AND INVESTMENT INCENTIVES

Thailand promotes domestic value addition through targeted incentives, particularly for strategic minerals like potash, rare earths, and battery metals. Projects that involve downstream processing, such as mineral smelting and metallurgy, may qualify for Board of Investment (BOI) incentives, including corporate tax holidays, import duty exemptions and expedited permitting. These benefits are contingent on environmental compliance and certification under the Green Mining or CSR standards set by DPIM.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Thailand has increasingly prioritised downstream development in its mining sector to enhance domestic value creation and industrial competitiveness. The government's strategic direction is outlined in the BOI's 2023–2027 Investment Promotion Strategy.

DPIM reports that over 80 percent of Thailand's mineral production serves domestic demand, yet much of it remains in a low-value form, such as construction aggregates. With this in mind, the Thai Cabinet approved a proposal on Policy on Mining and Downstream Industry in 2022, aimed at incentivising mineral exploration, mining and mineral processing, and metallurgical works according to demand and development trends, while ensuring safe, efficient and environmentally friendly operations.

LOCAL CONTENT AND EMPLOYMENT

Thailand promotes domestic participation through restrictions on foreign ownership, requiring Thai nationals or juristic persons to hold at least 40 percent of shares in mining ventures. The law also supports the employment of Thai workers, especially in technical and operational roles, and encourages technology transfer and training in order to build national capacity (DPIM, 2009).

Thailand's industrial sector is undergoing transformation owing to the shift towards clean energy. Local content measures were launched for the electric sector, including electric vehicle (EV), to promote local supply chain development. However, the industry faces a shortage of skilled labour, particularly in engineering, operations, and project management, as a result of demographic shifts and limited digital competencies. To address this issue, Thailand is investing in workforce development, including initiatives such as STEMPlus, which offers tax incentives for employee training. The STEMplus package is a fiscal initiative launched by the Thai government to encourage science, technology, engineering, and mathematics (STEM) employment and workforce development. Under this initiative, tax incentives are offered to business operators in specific industries that employ skilled labour in STEM, as well as companies that invest in upskilling their staff through training and education programmes certified by authorised government bodies, including NXPO, the Eastern Economic Corridor Office (EECO), the Digital Economy Promotion Agency (DEPA), and the Centre of Robotic Excellence (CoRE). Wages for STEM workers and training costs can be claimed as deductible expenses. (Office of National Higher Education Science Research and Innovation Policy Council, n.d.)

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Thailand has significantly strengthened its environmental governance in recent years, aligning with global environmental, social and governance (ESG) standards and the UN Sustainable Development Goals (SDGs), for example, in areas including clean air, climate change, and sustainability. The country enacted laws such as the National Environment Protection and Promotion Act (1992) and the Minerals Act (2017), which, together, regulate environmental safeguards in the mining sector. As well as requiring environmental impact assessments (EIAs) or environmental health impact assessments (EHIAs) for mining projects, these laws also enforce pollution control and mandate community engagement and mine closure planning.

MINE CLOSURE AND POST-MINING TRANSITION

The primary legal basis for mine closure in Thailand is the Minerals Act (2017), which mandates mining operators to submit and implement comprehensive plans for site restoration, closure and post-mining monitoring. The Minerals Committee must approve these plans and include environmental health impact assessments throughout the life cycle of the mine. Additional regulations, such as the National Environmental Quality Promotion and Conservation Act (1992) and the Water Resources Act (2018), support rehabilitation efforts by requiring environmental monitoring and sustainable water management.

Thailand is increasingly recognising the need for improved post-mining transition policies that integrate environmental restoration, economic diversification, and community engagement. Requirements for the mine rehabilitation plan and financial guarantee were updated to the latest Minerals Act.

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

The requirement for CSR is not stated explicitly in Thailand's mining law. However, CSR has become a mandatory requirement for mining companies through the conditions specified in their mining licences or EIA approvals. CSR is also increasingly promoted through guidelines issued by DPIM and its consultation projects. These encourage mining companies to engage in community development, health, and safety, and environmental stewardship as part of their social licence to operate, thereby helping to build trust and develop cooperation with local communities.

The requirements for establishing the community development fund and the health monitoring fund, as outlined in the EIA, lay the foundations for socio-economic and community development, allowing stakeholders to engage in the process. Companies that go beyond the basic requirements and achieve a better environmental and social performance can apply for an award from DPIM and the Ministry of Industry.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

The Minerals Act B.E. 2560 (2017) stipulates that, in the process of applying for a mining concession, a community hearing must be conducted to disclose project-related information, as well as to gather opinions and concerns from local communities. In cases where consensus cannot be reached, a vote is required. Furthermore, community engagement is required during the EIA and EHIA study process to ensure their concerns are addressed and taken care of.

In terms of policy, the National Mineral Management Policy Commission mandates the organisation of public hearings during the formulation of the National Mineral Management Master Plan, thereby ensuring public participation from the policy-setting stage onwards. Participation also takes place in the form of benefit-sharing. The law specifies that 60 per cent of royalties paid shall be allocated to local administrative organisations. In addition, mining licence holders are required to establish a community development fund and a health monitoring fund.

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Thailand's mining sector relies on general legal frameworks such as the Administrative Procedure Act (1996) and the Official Information Act (1997) to manage grievance redress and conflict prevention. The key institutions involved are governmental agencies such as DPIM, the Ministry of Industry, the Ministry of Interior, the Administrative Court and the National Human Rights Commission of Thailand (NHRCT). In 2024, the Ministry of Industry launched an online channel for complaints, thereby facilitating communication and tracking.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

National data shows that women's participation rate in the labour force stands at around 59 percent, compared with 75 percent for men, while women spend over three times more time on unpaid domestic work, which restricts their access to formal employment (World Bank, 2023). In mining, specifically, women are under-represented in technical and leadership roles, and their involvement is often informal and unrecognised, particularly in artisanal and small-scale mining.

In Thailand, the protection of labour rights is regulated under the Occupational Safety, Health and Environment Act (2011), and safety measures are included in the impact mitigation measures under the EIA. The promotion of CSR implementation in mining companies, both compulsory and voluntary, highlights concerns regarding the protection of rights and engagement. However, there is still a need for monitoring and evaluation of progress. In some multinational mining companies, CSR programmes have been introduced to improve local conditions and promote gender equity. However, these efforts often fall short of addressing deeper structural barriers (Pimpa and Phouxay, 2017).

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Thailand is not a participant in the Extractive Industries Transparency Initiative (EITI) and therefore does not publish standardised reports on mining revenues, contracts or beneficial ownership. While some mining-related data, such as licensing and environmental impact assessments, are available through government channels, contract disclosure is not systematic, and beneficial ownership information is rarely made public.

Thailand has several key institutions responsible for overseeing transparency, governance, and anti-corruption in the mining sector, including the Department of Primary Industries and Mines (DPIM), the Office of the Public Sector Development Commission (OPDC) and the National Anti-Corruption Commission (NACC).

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

ESG reporting in Thailand is increasingly required for publicly listed companies under the Securities and Exchange Commission's sustainability framework, while private firms are voluntarily adopting ESG practices owing to investor pressure. Internationally financed projects, especially in mining and energy, must comply with IFC Performance Standards. Some large firms are aligning with global frameworks like the Global Reporting Initiative (GRI) and the Task Force on Climate-related Financial Disclosures (TCFD).

Thailand has ratified key ILO conventions and is a party to the UN Convention against Corruption and the United Nations Framework Convention on Climate Change (UNFCCC). It has committed to net-zero emissions by 2065 and introduced the Climate Change Bill, which includes carbon taxation and emissions trading. Despite ongoing legal reforms to attract sustainable investment, enforcement of international standards remains inconsistent, particularly in environmental protection, transparency, and human rights. A list of country-level international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

Thailand's National Single Window system simplifies import and export processes by allowing traders to submit electronic documents just once. It combines government-to-government, government-to-business, and business-to-business data-sharing, reducing time and costs for customs clearance and trade procedures. Additionally, the Ministry of Industry publishes notifications that outline procedures and timeframes for permissions under the Minerals Act 2017, promoting clarity and efficiency in regulatory compliance. The DPIM-FIN system also enables the online payment of royalties, fees, and benefits related to mining, making financial transactions easier for businesses.

Investment protection in Thailand is strengthened through various international investment agreements, such as bilateral investment treaties (BITs), free trade agreements (FTAs), and regional investment agreements. These accords provide safeguards and incentives to foreign investors, fostering a stable and secure investment environment. As regards state-owned enterprises (SOEs) and market access, the government promotes free market competition. For instance, the Electricity Generating Authority of Thailand (EGAT) is the sole SOE owning and operating lignite mines exclusively for its power plants. Other government agencies treat EGAT in the same way that they treat private companies, thereby promoting a fair and competitive market. This strategy allows the government to participate in strategic sectors while maintaining a market-driven approach.

5 REFORMS AND STRATEGIC OUTLOOK

Ongoing reforms aim to align domestic practices with international standards, improve environmental protections and promote the growth of a sustainable and competitive critical minerals sector. The country remains committed to updating its policies and regulations. The Mineral Management Master Plan is updated every five years to adapt to the changing context.

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COUNTRY PROFILE

TIMOR-LESTE

Timor-Leste's mining sector is emerging as a strategic part of its efforts to diversify the economy, which still depends heavily on petroleum and natural gas (Chung, 2024). The country's mineral potential includes metallic minerals such as manganese, gold, copper, nickel, chromite and rare earth elements (REE), and non-metallic minerals like limestone and marble.

The mining sector accounts for less than 1 percent of total GDP (EITI, 2024). The government is focusing on establishing a mining legal framework, with institutions such as the national minerals authority, Autoridade Nacional dos Minerais (ANM), and a state-owned mining enterprise, Murak Rai Timor, E.P. It has also launched a public tender for mineral exploration.

KEY HIGHLIGHTS

- +** **Mineral resources:** manganese, gold, copper, nickel, chromite and rare earth elements (REE), limestone
- +** **Government priorities:** establish a legal framework, mining institutions and launch public tenders for exploration
- +** **Recent successes:** Awarded 13 exploration licences to both domestic and international companies

1 GEOLOGICAL CONTEXT

The country's geology is shaped by complex tectonic activity, particularly the collision between the Australian and Eurasian plates, which has created a diverse range of rock formations and mineralisation zones, as shown in Table 1.

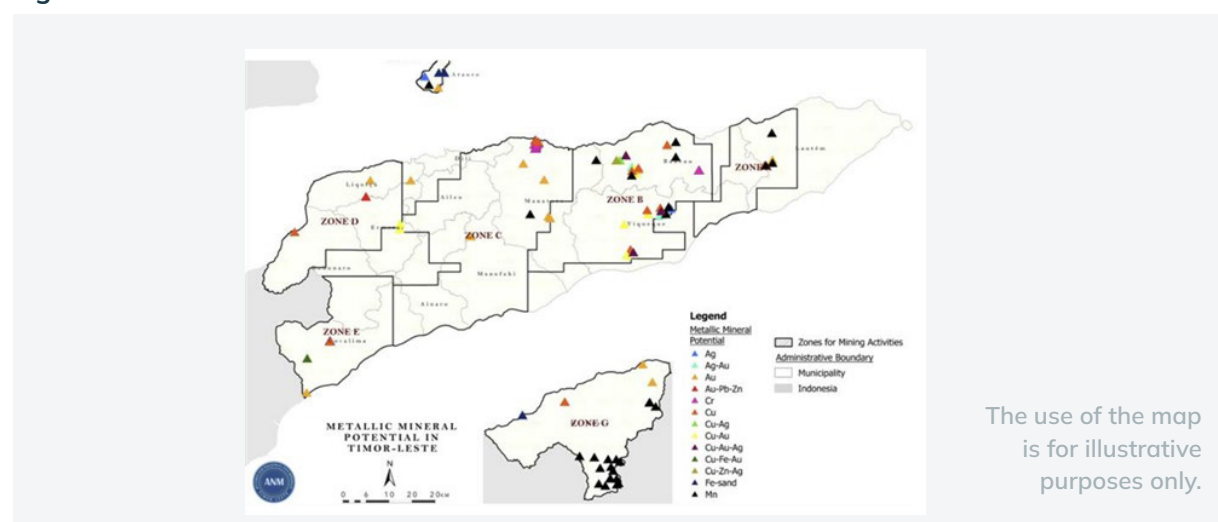
Table 1: Mineral distribution in Timor-Leste

MINERAL TYPE	OCCURRENCE	GEOLOGICAL CONTEXT
Copper, gold, silver	Volcanogenic massive sulphides (VMS) in ophiolites	Cyprustype deposits in uplifted sequences
Chromite	Associated with ultramafic rocks	Found in ophiolite belts
Marble and limestone	Extensive reefal and marine limestone formations	Miocene to Pleistocene sequences
Clay minerals and phosphorites	Scattered occurrences in sedimentary basins	Potential for domestic use

Source: GeoExpro and NVentures, 2021; Timor Resources, 2023

The most promising mineral prospects include volcanogenic massive sulphide (VMS) deposits linked to ophiolite belts, which contain copper, gold, and silver, akin to Cyprus-type deposits. Chromite deposits also occur in ultramafic rocks, while vein-type gold and marble deposits serve as additional exploration targets. The Bobonaro Mélange and other Miocene formations are rich in clay sediments and phosphorites, suitable for local use or small-scale extraction. Hydrocarbon potential is mainly found in offshore and onshore basins, especially in Blocks A and C along the southern coast, where exploration efforts have increased following the ratification of the Maritime Boundary Treaty between Australia and Timor-Leste.

Figure 1: Metallic mineral distribution in Timor-Leste



Source: Autoridade Nacional dos Minerais, 2025

2 INSTITUTIONAL FRAMEWORK

Table 2: Key institutions responsible for mineral governance in Timor-Leste

INSTITUTION	ROLE
Autoridade Nacional dos Minerais (ANM)	Regulator of mining activities; oversees licensing, compliance, and strategic planning
Instituto de Geociências de Timor-Leste (IGTL)	Conducts geological research, mapping and data management for minerals and hydrocarbons
Murak Rai Timor, E.P. (MRT)	State-owned enterprise for strategic mineral development and partnerships
Ministry of Petroleum and Mineral Resources (MPRM)	Policy-making and oversight of both the petroleum and the mineral sectors
National Geology Laboratory (under IGTL)	Provides technical analysis, samples testing and supports geological surveys

Source: Adapted from the ANM and EITI websites

3 POLICY AND REGULATORY FRAMEWORK

Timor-Leste's mining sector is governed by the Mining Code, enacted through Law No. 12/2021 of 30 June 2021, which provides a modern legal framework for the regulation of all mining activities, from reconnaissance and exploration, to the development, processing and marketing of minerals. The Mining Code was designed to promote sustainable development, attract investment, and ensure that mineral exploitation benefits the local population and economy.

To implement the Mining Code, the government established the Autoridade Nacional dos Minerais (ANM) in 2023 as the central regulatory body for the sector. The Mining Code allows for mineral rights to be granted through public tenders, direct awards in specific cases (such as artisanal mining and strategic minerals) and simplified permits for small-scale community-based operations. It also introduces a Strategic Minerals Regime, enabling the government to prioritise minerals deemed critical for national development or energy security. A list of relevant laws and policies can be found in Appendix 1.

3.1. PERMITTING PROCESSES

Timor-Leste has undertaken significant reforms to modernise and centralise its mining licensing system. The enactment of Law No. 12/2021 (Mining Code) marked a pivotal shift towards a transparent, efficient and strategically guided framework for mineral resource management. Key reforms in the Mining Code include the creation of the Autoridade Nacional dos Minerais (ANM) in 2023 to oversee the permitting process; clear regulations on permitting stages, from reconnaissance and exploration to production and marketing; mining rights being granted through a transparent and competitive bidding process; and a requirement for environmental permits for all mining stages.

Table 3: Categories of mining titles, permitting process and relevant authorities

CATEGORY OF MINING TITLE	PERMITTING PROCESS	RELEVANT AUTHORITY
Reconnaissance Authorization	Application to ANM; optional initial phase	ANM
Exploration and evaluation licence	Requires feasibility studies; approved by the Council of Ministers or the Ministry of Petroleum and Mineral Resources (MPRM)	ANM and Ministry of Petroleum and Mineral Resources (MPRM)
Mining licence	Granted via a mining agreement; includes technical, economic and environmental plans	ANM (with prior approval from MPRM)
Mineral permit (construction materials)	Proposal by ANM; issued by MPRM; Council of Ministers consulted if export is intended	MPRM and ANM
Mineral permit (transformation minerals)	Requires Council of Ministers consultation; issued by MPRM	MPRM
Mineral pass (artisanal mining)	Issued directly or via delegated powers	ANM and/or MPRM
Marketing licence	For nonlicence holders wishing to market minerals	ANM

Source: Autoridade Nacional dos Minerais, 2025

3.2. FINANCIAL AND FISCAL REGIME

Timor-Leste has established a special fiscal regime for mining to ensure fair revenue distribution, attract investment, and promote downstream value addition. The regime is governed by the Mining Code, the Taxes and Duties Act 2008 and the Private Investment Law (Law No. 15/2017).

TAXATION AND ROYALTIES

The key features of the fiscal regime include various tax rates and fees applied across different sectors. The standard corporate income tax (CIT) rate is 10 percent for most companies, whereas oil and gas contractors face a higher rate of 30 percent, along with a supplemental petroleum tax (SPT). Mining support services are subject to a 4.5 percent withholding tax, while mining royalties vary based on mineral type and whether processing takes place. Surface fees range from USD 25 to USD 400 per km², depending on the mineral, activity and applicable tax regime. Withholding taxes are applied as follows: 10 percent on royalties, 4.5 percent on mining services, 2-4 percent on construction services, and 10 percent on rent, prize money, and other payments.

Mining royalties in Timor-Leste are revenue-based payments made by mineral rights holders to the state and are calculated as a percentage of the gross value of extracted minerals. These royalties are designed to ensure the country benefits fairly from its natural resources while encouraging responsible investment.

Table 4: Mineral production royalty rates

MINERAL TYPE	UNPROCESSED RATE	PROCESSED RATE
Precious metals/minerals	8%	3.5%
Common metals	7%	2.5%
Gems	8%	3.5%
Radioactive minerals	8%	—
Rare earth minerals	15%	—
Ornamental stones	USD 10/tonne	USD 1/tonne

Source: Viana, et al, 2022

In addition to royalties, mining operators are subject to annual surface fees based on the size and nature of their concession area, ranging from USD 25 to USD 400 per km². ANM oversees royalty collection and publishes revenue data in line with Timor-Leste's commitment to the Extractive Industries Transparency Initiative (EITI). The government may also negotiate alternative benefit-sharing mechanisms, such as net smelter royalties in joint ventures, offering flexibility in fiscal structuring (Viana et al., 2022).

FISCAL STABILITY AND INVESTMENT INCENTIVES

Tax incentives are offered through special investment agreements, which may provide exemptions or reductions in CIT, royalties and import duties. These incentives are mainly aimed at key sectors such as mining, agriculture, and renewable energy. The fiscal framework for private entities involved in mining is established by the Mining Code, the Tax and Duties Act 2008 and Law No. 15/2017 on private investment, permitting these agreements to grant tax benefits and incentives. While there is no requirement for free carried interest, the government allows state participation of up to 30 percent, subject to approval by the Council of Ministers.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Timor-Leste's legal framework prioritises local processing, job creation, and strategic mineral classification, laying the groundwork for a vertically integrated mining sector. However, the country has yet to publish a formal downstream roadmap.

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Timor-Leste's Strategic Development Plan 2011–2030 aligns with the UN Sustainable Development Goals (SDGs), emphasising climate action, clean energy, and conservation. The government has partnered with international organisations to promote green transformation, including initiatives funded by the Government of Japan to enhance climate resilience and clean energy adoption.

The government's emphasis on inclusive development—engaging civil society, women and marginalised groups—reflects a broader shift towards participatory environmental governance. However, rural poverty, food insecurity, and vulnerability to climate hazards continue to pose significant obstacles. Strengthening institutional frameworks, decentralising environmental oversight and expanding community-based conservation efforts are key to advancing ESG priorities in Timor-Leste.

MINE CLOSURE AND POST-MINING TRANSITION

The primary legal basis for mine closure in Timor-Leste is established under the Mining Code (Law No. 12/2021). The Mining Code mandates that mining operations must be conducted in a manner that ensures ecologically sustainable development, and it includes specific provisions for environmental licensing procedures, mine closure planning, and the rehabilitation of affected areas.

3.3.2. SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Timor-Leste's mining sector is increasingly viewed as a strategic driver for socio-economic and community development, especially under the framework of the Mining Code (Law No. 12/2021), to respect the rights of local communities and uphold ethical, sustainable standards.

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Timor-Leste's Mining Code (Law No. 12/2021) places strong emphasis on community consultation, participation, and benefit-sharing. Companies must engage local communities in public consultations before operations begin, respect cultural practices and ensure transparency. Critics argue that while the law establishes a modern and comprehensive framework for regulating mining activities, it may fall short in protecting communities and the environment in practice (Hulse, 2020).

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Timor-Leste's Mining Code includes provisions for grievance redress. Mining companies like Timor Resources have implemented formal grievance procedures involving registration forms, screening and written responses (Hulse, 2020). However, these systems may exclude illiterate or marginalised community members and lack independent oversight.

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Although Timor-Leste's mining sector is relatively nascent, the government has embedded gender integration and anti-discrimination principles into its legal framework. Article 3(f) of Law No. 12/2021, the Mining Code, explicitly mandates the sector to "ensure gender inclusion and combat discriminatory practices", while Article 91(7) prohibits discrimination in employment based on gender, race, marital status, religion or political beliefs. These provisions align with broader national efforts, including the State Secretariat for Equality and the Ministry of Social Solidarity and Inclusion, which oversee gender-responsive policies and programmes. The Maubisse Declaration II (2018–2023)

set targets for 30 percent female employment in rural infrastructure projects, including extractives. However, challenges persist as women still face high rates of gender-based violence (28.2 percent), early marriage (14.9 percent), and vulnerable employment, particularly in rural areas. (UN Women, n.d.).

3.3.3 GOVERNANCE

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Since 2008, Timor-Leste has been a participant in the Extractive Industries Transparency Initiative (EITI). The country publishes annual EITI reports detailing revenues from the petroleum sector, licensing and production-sharing contracts, primarily in the oil and gas sector. However, mining sector data remained limited. The last Timor-Leste mining sector report from EITI was published in 2021. In 2023, Timor-Leste's EITI Validation score was 58 out of 100, categorised as “fairly low,” with recommendations to improve public access to extractive data and strengthen stakeholder engagement.

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Timor-Leste aligns its national reporting systems with international standards across various sectors. For example, in accounting, the Ministry of Finance develops standards based on International Financial Reporting Standards (IFRS). In energy and environmental areas, Timor-Leste is connected with the International Electrotechnical Commission (IEC), which the government uses to promote the use of renewable energy. A list of relevant international standards, treaties, and conventions is available in Appendix 2.



4 ENABLING ENVIRONMENT FOR INVESTMENT

Timor-Leste has actively fostered a supportive environment for investment in its mineral industry through various legal and institutional reforms. The country enacted a Mining Code in 2021, establishing a framework for mineral exploration and mining regulation. In 2023, it held its first public tender for mineral rights, offering 49 concession areas with potential deposits of gold, copper, manganese, and rare earth minerals. The government also set up the ANM national minerals authority to enhance regulatory oversight, and also launched a state-owned mining entity, Murak Rai Timor, E.P., to engage directly in mining projects. These initiatives, along with a focus on transparency, a competitive fiscal regime, improvement of basic infrastructure, and compliance with international standards, are designed to enhance a responsible mineral investment environment.

5 REFORMS AND STRATEGIC OUTLOOK

Recent developments, between 2023 and 2025, reflect growing momentum in the mining sector. The government launched a public tender for 49 concession areas, awarding 13 licences to both domestic and international companies, including Estrella Resources and Iron Fortune. Both the metallic and non-metallic mineral sectors are expected to develop over the next five years. Furthermore, the second licensing round for metallic minerals, which will focus on exploration and evaluation, is scheduled to begin in November 2025. Regulatory reforms are ongoing, with implementing regulations being finalised to cover mineral classification, health and safety, and mine closure reserves.

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COUNTRY PROFILE

VIET NAM

According to the United States Geological Survey in 2025, Viet Nam is a country rich in minerals, with the sixth largest share of rare earth elements (REEs) in the world, equivalent to 3.5 million tons (Vu, K., & Guarascio, 2025). It also holds some of the world's largest bauxite reserves, together with major reserves of tungsten, iron ore, zinc, tin, and other minerals.

The sector contributed nearly 2.5 percent of GDP in 2024. Government priorities are focused on boosting sustainable extraction practices, advancing mineral processing capabilities, and positioning Viet Nam as a reliable supplier of critical minerals, including bauxite and rare earth elements, for high-tech and green energy industries. Ongoing projects, like alumina and aluminium production facilities, underline Viet Nam's ambitions to move up the value chain.

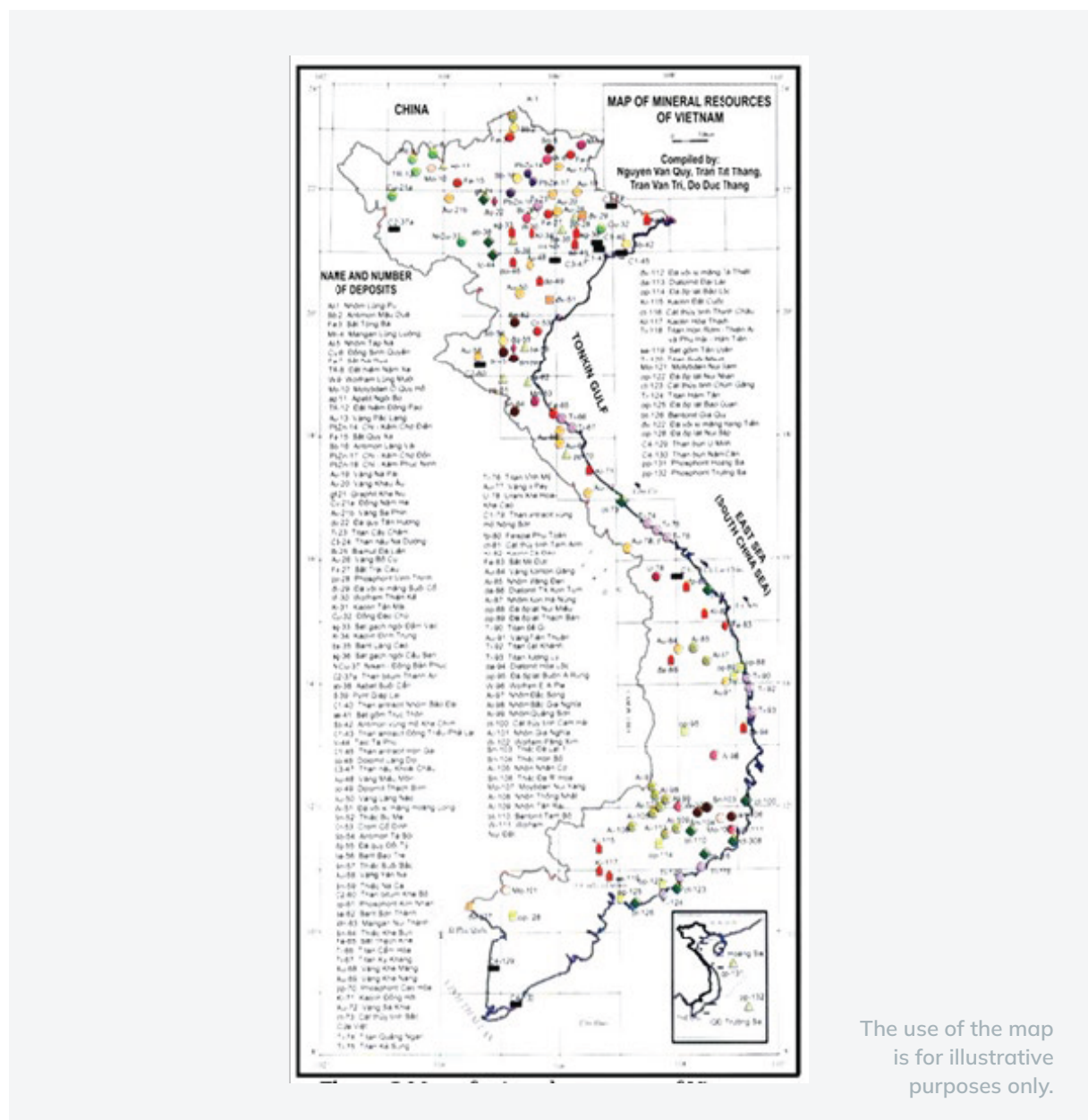
KEY HIGHLIGHTS

- +** **Mineral resources:** copper, bauxite, iron ore, rare earth elements (REEs), tin, gold, zinc, limestone
- +** **Government priorities:** ambitious goals for rare earth exploration, production and processing through to 2050
- +** **Recent successes:** the Tan Rai and the Nhan Co bauxite mining and alumina processing projects
- +** The mining sector accounted for about 33 percent of foreign investment in Q1 2025, equivalent to around USD 3.6 billion

1 GEOLOGICAL CONTEXT

Viet Nam's geology offers great potential for minerals owing to its complex tectonic history and diverse sedimentary basins. Beyond hydrocarbons, Viet Nam is geologically prospective for minerals such as rare earth elements (REEs) in the Northwest (for example, Lai Chau and Dong Pao), bauxite in the Central Highlands (with some of the largest deposits in the world), and copper, gold and tungsten in northern metamorphic belts. This geological richness positions Viet Nam as a potential future hub for energy transition minerals.

Figure 1: Mineral resource distribution in Viet Nam



Source: Khoi, 2014

2 INSTITUTIONAL FRAMEWORK

Viet Nam’s mineral governance is organised through a comprehensive institutional framework that involves multiple ministries, government agencies and sectoral groups, each with specific responsibilities to ensure effective regulation, policy implementation and sector oversight. Table 1 below summarises the roles of major bodies, including the Ministry of Natural Resources and Environment (MONRE), the Ministry of Planning and Investment (MPI), the Ministry of Industry and Trade (MOIT), the General Department of Geology and Minerals (GDGM), the National Assembly, and the Viet Nam National Coal and Mineral Industries Group (Vinacomin).

Table 1: Overview of institutions responsible for mineral governance in Viet Nam

INSTITUTION	ROLE
Ministry of Agriculture and Environment (MAE)	Regulates land use, environmental protection, mining licenses and authorities, mineral planning, and basic geological investigations
Ministry of Finance (MoF)	Coordinates investment policy, including foreign direct investment in energy and mining
Ministry of Industry and Trade (MOIT)	Oversees national energy planning and policies
Viet Nam Department of Geology and Minerals (VDGM)	Regulates geological mapping, mining licenses and authorities, mineral planning, basic geological investigation, conducts geological surveys, licenses mining activities, and provides environmental oversight
National Assembly of Viet Nam	Enacts and amends energy and mineral laws, including the Law on Petroleum and the Law on Mining
Viet Nam National Coal and Mineral Industries Group (Vinacomin)	Carries out coal mining and processing sectors

Source: Adapted from Ministry of Industry and Trade (MOIT), 2023; National Assembly of Viet Nam, 2024;

3 POLICY AND REGULATORY FRAMEWORK

Viet Nam is reforming its mineral governance system as part of its sustainable development efforts. Amid global energy demands and industrial growth, the government revised its legal framework, passing the Law on Geology and Minerals (2024) in November 2024, effective from July 2025. This law replaces the 2010 Mineral Law with improved structure, transparency, and oversight. Some provisions, especially for Group IV minerals such as construction sand, were implemented earlier—in January 2025.

The law categorises minerals into four groups, allowing customised regulations for exploration, exploitation, environmental management and restoration. Mining rights can be issued for up to 30 years, extendable to 50 years for special projects. This long-term approach attracts investors while ensuring regulatory oversight. A key aspect of the new law is its emphasis on strategic and critical minerals like rare earths, bauxite, lithium and uranium, which are essential to green technologies such as electric vehicles and wind turbines.

Decision No. 866/QĐ-TTg, issued by the prime minister in July 2023, approves a master plan for mineral exploration, extraction, processing and utilisation for the period 2021 to 2030, with a vision for 2050. The plan aims to manage mineral resources sustainably and effectively, prioritising strategic minerals such as bauxite, titanium, rare earth elements, chromite, nickel, copper, and gold. According to the master plan, Viet Nam aims to exploit and process more than 2 million tons of rare earth ores by 2030 and produce up to 60,000 tons of rare earth oxides equivalent per year. A list of relevant laws and policies is available in Appendix 1.

3.1 PERMITTING PROCESSES

Viet Nam's legal framework for mining and mineral extraction distinguishes between several categories of mining titles. Each category has specific permitting requirements and is governed by designated authorities. Table 2 below outlines the key types of title, their function, the permitting process, and the responsible institutions.



Table 2: Categories of mining titles, permitting process and relevant authorities

TITLE CATEGORY	PURPOSE	PERMITTING PROCESS	RESPONSIBLE AUTHORITIES
Prospecting licence	Conduct initial geological surveys and mapping	Application submitted to VDGM; requires a technical plan and environmental screening	Viet Nam Department of Geology and Minerals (VDGM), MAE
Exploration licence	Investigate the size, grade and value of the mineral body	Requires a detailed geological work plan, EIA and local consultations	VDGM, MAE, provincial People's Committees
Mining licence: commercial extraction of minerals	Granted, after successful exploration	Requires full EIA, land-use approval and safety plans	VDGM, local authorities
Processing licence	Construction of mineral refining and/or smelting facilities	Requires a feasibility study, environmental permits and construction approval	VDGM, MAE
Export permit	Export of mined or processed materials	Subject to quotas, pricing regulations and customs documentation	MOIT, General Department of Viet Nam Customs

Source: Adapted from the National Assembly of Viet Nam, 2024; MONRE, 2020; Government of Viet Nam, 2025

Each title carries obligations related to land rehabilitation, environmental protection, and periodic reporting. Non-compliance may result in revocation or penalties under Viet Nam's mining law.

Licensing is now restricted; a company can hold only five exploration licences per mineral type in order to prevent monopolies from forming. Viet Nam's Decree No. 10/2025/ND-CP updates rules on exploration rights, especially regarding state-funded geological data, confidentiality, transfer, and access. Environmental accountability is central; operators must submit risk management plans, particularly for open-pit mines, and are responsible for land rehabilitation and community impacts, including contributions to local infrastructure and environmental restoration, thereby ensuring that resource development benefits local communities.

3.2. FINANCIAL AND FISCAL REGIME

Viet Nam’s mineral sector uses a multi-layered fiscal system, mainly the Natural Resource Tax (NRT) at extraction, with rates ranging from 1 percent to 40 percent, depending on mineral type and volume. Precious minerals like gold and rare earths face rates of 25–40 percent. Mining firms pay a 20 percent corporate income tax rate, rising to 32–50 percent for oil, gas, and high-value minerals. (National Assembly of Viet Nam, 2024). They pay a mining rights fee based on reserves, plus environmental fees, land-use charges and restoration bonds. Large projects may receive fiscal incentives, such as tax breaks or lower royalties, but complex fiscal policies can hinder foreign investment (World Bank, 2023).

TAXATION AND ROYALTIES

Viet Nam’s mineral sector primarily utilises the Natural Resource Tax (NRT) to share profits from resource extraction with the state. This tax is levied on total mineral production, allowing the country to derive value from its resources. The rates vary by mineral type and significance, ranging from 3–15 percent for sand and gravel to 25–30 percent for gold and rare metals. Royalties are based on gross output, with no deductions for operational costs, making administration straightforward but increasing the burden on low-grade, high-cost operations. Additionally, miners pay a one-time mining rights fee based on reserves. Although the system is transparent and predictable, critics contend that high royalties, taxes, and fees position Viet Nam’s mining industry among the highest taxed in the region, which may discourage investment in frontier or high-risk zones (World Bank, 2023).

Table 3: Mineral royalty rate

MINERAL TYPE	ROYALTY RATE
Sand, stone, gravel	3–15%
Base metals (copper, iron)	7–15%
Gold, silver	15–25%
Rare earths	20–30%

Source: Compiled from the National Assembly of Viet Nam, 2024; Government of Viet Nam, 2025

FISCAL STABILITY AND INVESTMENT INCENTIVES

Viet Nam's mineral sector sustains fiscal stability via a structured natural resources tax system introduced in 2010, with rates differing by mineral—for example, 20 percent for rare earths and approximately 7–15 percent for base metals. The government enforces rigorous documentation and compliance to ensure transparent tax collection. Despite lower foreign direct investment in mining compared with other sectors—owing to regulatory complexity and environmental safeguards—efforts are ongoing to streamline licensing and regulation to attract more investment while maintaining environmental standards.

Investment incentives in the sector aim to promote joint ventures between foreign and domestic companies, focusing on projects that utilise advanced technologies, adopt sustainable practices and operate in socio-economically disadvantaged areas or special economic zones.

VALUE CHAIN AND DOWNSTREAM DEVELOPMENT

Viet Nam's strategy is to develop a modern, sustainable mineral industry by mid-century, balancing the extraction and management of key minerals like bauxite, rare earths, and titanium using eco-friendly, circular economy technologies. The 2021–2030 mineral master plan, with a vision for 2050, emphasises mineral research and deep processing industries, and advocates for licensed mining with modern technology, supporting renewable energy and carbon neutrality in mineral processing.

In its strategy for the period until 2030, with a vision for 2045, the Viet Nam National Coal and Mineral Industries Group (Vinacomin) aims to create a technology-focused firm, managing mineral value chains and sustainable mining aligned with net zero emissions by 2050. It emphasises mineral processing and high-value downstream products, supported by the 2024 Law on Geology and Minerals, and policies enabling sustainable development, investment, and raw material security. These strategies will help Viet Nam shift from exporting raw minerals to building a competitive, environmentally friendly downstream mineral industry.

LOCAL CONTENT AND EMPLOYMENT

The government encourages technology transfer and capacity-building by implementing local content requirements, such as local employment quotas in bidding processes, and promoting joint ventures with Vietnamese companies to boost knowledge-sharing and to support long-term industrial growth. These financial and fiscal measures will help establish an energy environment in Viet Nam that is appealing to investors while being closely regulated to meet national objectives (MOIT, 2023).

3.3 ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) FRAMEWORK

3.3.1 ENVIRONMENT

ENVIRONMENTAL MANAGEMENT

Environmental protection is a central pillar of Viet Nam's mining regulatory framework. All major projects are subject to detailed environmental impact assessments (EIAs) under the Law on Environmental Protection (2020). These EIAs must consider biodiversity, water usage, pollution control, and social impacts.

KEY MEASURES AND REQUIREMENTS

EIAs are required for all large-scale projects and must be submitted to the Ministry of Agriculture and Environment (MAE) or the provincial Department of Natural Resources and Environment. For smaller or lower-risk projects, an environmental protection plan (EPP) is necessary. All projects must adhere to national technical regulations (QCVN) concerning emissions and wastewater standards, including limits on air emissions, noise, and water discharge. Project developers are also obligated to perform regular self-monitoring and submit compliance reports. Public disclosure and engagement with local stakeholders are essential parts of the permitting process through community consultation. Additionally, Viet Nam has implemented environmental bonds and insurance requirements for high-risk projects, especially in extractive industries, to ensure proper post-project rehabilitation (World Bank and MONRE, 2023).

MINE CLOSURE AND POST-MINING TRANSITION

Viet Nam's regulations for mine closure and post-mining transition require mining companies to prepare detailed plans and environmental restoration strategies. Under Circular 45/2016/TT-BTNMT and related laws, firms must submit comprehensive closure proposals, including explanations, layouts and measures to ensure site stability after mining ends. An appraisal council of experts in geology, mining and environmental science reviews these plans, leading to official approval by provincial or national authorities. Companies are also expected to perform continuous environmental monitoring and to report on the progress of the closure. Furthermore, mining companies should deposit funds to finance rehabilitation and the removal of mining assets within six months after licence expiry, thereby promoting responsible environmental practices and land restoration in Viet Nam.

Viet Nam's current mine closure regulations mainly aim to ensure the physical and chemical stability of mine sites after mining stops. Although post-mining land use is often permanent—typically for water reservoirs or reforestation—it generally lacks detailed social and economic planning. Challenges persist in effectively linking mine closure models

with sustainable economic and social land uses after closure. For instance, in Binh Duong province, various closure options—such as transforming mining pits into lakes for tourism or water storage—have been assessed using multi-criteria decision models. These aim to find the best sustainable solutions considering economic, social and environmental factors (Phan et al., 2023).

3.3.2 SOCIAL PERFORMANCE

SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

Mining projects are often linked with local economic development programmes such as job creation, skills training, and infrastructure development. For instance, alumina processing projects such as Tan Rai and Nhan Co, based respectively in the provinces of Lam Dong and Dak Nong, are crucial for Viet Nam's economic growth, establishing the nation as a significant alumina producer in Southeast Asia. These two bauxite-alumina complexes in the Central Highlands create stable jobs for thousands of workers, contributing from VND 1,200 billion to VND 1,400 billion in taxes and fees for the state—equivalent to between VND 1 million and VND 1.2 million per ton of alumina. However, there are concerns about their environmental impact (Ngoc and Co, 2020).

COMMUNITY CONSULTATION, PARTICIPATION AND BENEFIT-SHARING

Since 1993, Viet Nam has required EIAs for major projects, and the 2020 Law on Environmental Protection amendment specifically mandated public consultations during EIA report development to reduce any negative impacts. These consultations involve affected communities and organisations, usually through meetings and hearings. Public consultation meetings in Viet Nam are typically co-chaired by project owners and local commune People's Committees and aim to collect written feedback from impacted organisations and community members. This reflects established mechanisms for stakeholder engagement within the EIA process. Public participation is legally required, but the process often encounters challenges such as the delayed involvement of the public after decisions are close to being finalised, limited access to detailed project information, and meetings typically being held with selected community representatives rather than the broader public (Clarke and Vu, 2021). The lack of social inclusiveness and meaningful participation, particularly of women, continues to be a challenge (CECR, 2016).

MECHANISMS FOR GRIEVANCE REDRESS AND CONFLICT PREVENTION

Regulatory frameworks such as the Law on Environmental Protection 2020 and the Land Law 2024 require mechanisms for grievance redress. This includes channels for affected communities to submit complaints, receive timely responses, and access mediation. Companies are increasingly adopting formal grievance redress mechanisms as part of their corporate social responsibility and compliance efforts. However, the regulatory landscape

is complicated by fragmentation in enforcement and overlaps between administrative and criminal sanctions (Clarke and Vu, 2021). In addition, enforcement often lags behind the regulatory framework because of issues with interagency cooperation and excessive decentralisation (Do and Thi, 2023).

GENDER EQUITY, SOCIAL INCLUSION AND PROTECTION OF RIGHTS

Viet Nam's mining policies are gender-neutral but often indirectly exclude women and do not fully protect men. This situation reinforces gender inequalities, as societal beliefs and superstitions keep women largely out of underground and physically demanding roles. Instead, women mainly work in sectors like nursing, accounting, healthcare, and cleaning, while men dominate mining operations, machinery handling, and heavy labour. There is increasing advocacy for integrating gender perspectives into environmental impact assessments and mining policies to enhance safety, promote equal opportunities, and recognise women's roles and contributions in the industry (Pham, et al., 2023). Companies like Masan High-Tech Materials (MHT) are leading these efforts, with a notably higher number of female employees. MHT fosters gender equality through inclusive policies and a fair workplace environment, including women in leadership and technical roles, such as deputy CEO and director of technology, thereby demonstrating pathways for women's empowerment in mining (MHT, 2023).

3.3.3 GOVERNANCE

Viet Nam's mining governance is actively evolving through new legislation and regulatory frameworks that emphasise transparency, coherence and alignment with global standards. The recently enacted 2024 Law on Geology and Minerals establishes a solid legal basis for sustainable mining, enhances state oversight and promotes geological surveys. The law aims to create consistent legal documents, strengthen oversight, modernise administrative processes, and incorporate digital technology for improved resource management. It also aims to address challenges like enforcement fragmentation and strives to balance resource extraction with environmental protection and community interests.

TRANSPARENCY, DATA MANAGEMENT AND ANTI-CORRUPTION

Recent data from Transparency International indicate that Viet Nam scored 40 out of 100 on the 2024 Corruption Perceptions Index (CPI), slightly down on the 41 recorded in 2023. Viet Nam holds the 88th position among 180 countries for perceived public sector corruption, where a score of 100 symbolises very low corruption and 0 signifies high corruption. The global average CPI score is 43, placing Viet Nam's perceived corruption level slightly above the world average (Transparency International, 2024).

Viet Nam's broader anti-corruption initiatives are continuing. However, corruption remains widespread and deeply rooted across multiple sectors, including mining. Foreign companies are recommended to perform comprehensive due diligence, enforce rigorous compliance measures, and ensure transparency in their dealings in order to reduce risks (The-Shiv, 2025).

Transparency and disclosure requirements for state-owned enterprises (SOEs), including those in the energy and mining sector, have been strengthened in Viet Nam in recent years. However, public disclosure of state enterprises' business operations remains uneven, with efforts ongoing to improve independent auditing and transparency. The legal framework requires that SOEs publish information on corporate performance and financial information, thus aiding anti-corruption measures and governance improvements. (ADBI, 2020).

INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

Viet Nam is a party to the Paris Agreement. The country has signed several global frameworks, including the UN Sustainable Development Goals (SDGs), ILO conventions, the United Nations Convention on the Law of the Sea (UNCLOS), and trade agreements. A list of relevant international standards, treaties, and conventions is available in Appendix 2.

4 ENABLING ENVIRONMENT FOR INVESTMENT

The regulatory environment still favours foreign direct investment, especially in projects that foster innovative technologies and sustainable mining. Licensing processes have been simplified, complemented by tax incentives and dedicated industrial zones to draw foreign investors, especially for value-added processing instead of raw extraction.

5 REFORMS AND STRATEGIC OUTLOOK

The Vietnamese government has established clear strategies for mineral development, including Decision No. 866/QĐ-TTg (2023), which sets ambitious goals for rare earth exploration, production and processing through to 2050. These policies support integrated mining complexes and modern technologies, with a strong focus on environmental sustainability.

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CONCLUSION

ASEAN holds abundant reserves of key minerals including those critical to the green transition, such as 46 percent of the world's nickel, 23 percent of bauxite, 20 percent of rare earth elements (REEs) and 6.9 percent of cobalt. This makes the ASEAN region strategically important for clean technology supply chains such as batteries, electric vehicles, and solar PV (Bhaskara, 2025). However, clear, transparent, stable, and efficient regulatory frameworks are vital for attracting investment in ASEAN's mineral development. These policy frameworks offer investors predictability and confidence, thereby encouraging long-term investments while upholding high environmental, social and governance standards to prevent negative impacts on ecosystems and local communities.

ASEAN Member States should focus on exploring and improving geoscience data throughout the region to better highlight and leverage their combined mineral resources. Having strong pre-competitive geological and resource data reduces exploration risks and attracts investments by enabling stakeholders to make better-informed decisions. Combining various geoscience datasets, such as geological, geophysical and geochemical information, allows for more accurate greenfield exploration and resource evaluation. *The ASEAN Minerals Exploration Strategy 2023* emphasises this need by aiming to provide accessible, high-quality geological data through the ASEAN Minerals Information System (AMIS), supporting coordinated exploration initiatives across ASEAN Member States.

Recent reforms in ASEAN Member States aim to reduce barriers to investment by streamlining procedures—such as the integrated licensing system in Indonesia, the national single window system in Thailand, digitalisation and streamlined processing of mining permit applications in the Philippines, the customs process in Lao PDR and licensing framework reform in Cambodia—in order to improve transparency and legal certainty. Most ASEAN Member States provide fiscal stability through national legislation reform and bilateral investment treaties and offer various fiscal incentives to attract investment.

Countries like Indonesia and Malaysia are making progress in value addition and downstream policies and implementation. These reforms strengthen ASEAN's position in the global minerals supply chain and support Sustainable Development Goals (SDGs) by encouraging responsible resource management and economic growth.

Enhancing regional collaboration and decision-making in the minerals sector is crucial for strengthening downstream links and increasing investments throughout the entire value chain. The ASEAN Minerals Cooperation Action Plan (AMCAP-IV) seeks to facilitate trade and investment, promote sustainable mineral development, and improve institutional capacities. Multilateral development banks (MDBs) play an important role by mobilising climate finance and supporting sustainable infrastructure and governance projects in ASEAN Member States. Promoting responsible sourcing and securing mineral supplies directly supports global efforts to reduce emissions in mineral supply chains and back the energy transition, aligning ASEAN with international sustainability initiatives.

Capacity-building remains crucial for ASEAN to enhance governance and foster social and environmental sustainability in the mining sector. Since formalising cooperation via the first ASEAN Minerals Cooperation Action Plan (AMCAP) in 2005, ASEAN has prioritised capacity development, including geological surveys, resource evaluation, mine rehabilitation, sustainable growth, licensing, and mineral processing. Training programmes focus on geological surveys, environmental management, and technology transfer to raise standards across ASEAN Member States. Promoting scientific collaboration and research helps establish regional standards and encourages green technologies along the minerals value chain. These initiatives aim to support sustainable development, rehabilitate mined areas, and integrate ASEAN minerals into global markets, all while protecting environmental and community health.

Ongoing adaptation through regular stakeholder engagement and evidence-based policy updates is crucial for ASEAN Member States to remain competitive and sustainable. The global mineral market is dynamic, driven by technological advances, changing sustainability standards, and geopolitical shifts. ASEAN Member States must continuously review and update their policies to incorporate innovations, enhance environmental and social regulations, modernise infrastructure and promote regional cooperation. This proactive approach will enable ASEAN to effectively utilise its critical mineral resources, support the green transition and meet the increasing global demand for clean technology materials.

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APPENDICES AND RESOURCES

APPENDIX 1: LIST OF RELEVANT COUNTRY-LEVEL LAWS AND REGULATIONS

BRUNEI DARUSSALAM

LAW/POLICY	YEAR	DESCRIPTION
Environmental Protection and Management Order (EPMO)	2016	Core environmental law; mandates EIAs for prescribed activities including mining; empowers environmental officers with enforcement authority and outlines penalties for non-compliance
Mining Act (Chapter 42)	1920 (amended)	Governs prospecting and mining activities; requires licences and leases, sets conditions for environmental responsibility and includes penalties for unauthorised mining
Hazardous Waste (Control of Export, Import and Transit) Act (Chapter 274)	2013 (revised 2024)	Regulates the handling of hazardous waste in line with the Basel Convention; covers permits, enforcement and the environmentally sound management of waste
National Biodiversity Strategy and Action Plan (NBSAP)	Ongoing	Framework for biodiversity conservation, including integration into national development and sectoral planning; supports sustainable land use and ecosystem protection
National Forest Policy	1989 (updated)	Guides sustainable forest management, conservation and protection of water catchment areas; defines categories such as protection, production, recreational and conservation forests
Petroleum Mining Act (Chapter 44)	1963 (amended 2022)	Governs petroleum mining and includes clauses on environmental responsibility and liability for site restoration
Environmental Impact Assessment Guidelines	2012	Details the EIA process, including scoping, baseline studies, risk prediction, mitigation and post-project monitoring; closure planning is integrated into project life cycle assessments
Decommissioning and Restoration Guidelines for Onshore and Offshore Facilities	2012 (updated)	Provides a framework for decommissioning oil and gas infrastructure; covers stakeholder consultation, environmental impact assessment, waste management and post-closure monitoring

CAMBODIA

LAW/POLICY	YEAR	DESCRIPTION
Law on Environmental Protection and Natural Resource Management	1996	Establishes the legal framework for environmental protection and sustainable resource use
Law on Mineral Resource Management and Exploitation	2001	Regulates exploration, licensing and environmental obligations in the mining sector
SubDecree on EIA Process	1999	Requires ESIA for development projects
Prakas No. 191 on EIA Classification	2016	Defines project categories and EIA requirements for mining and construction sectors
Prakas No. 4828 (Amendment to Prakas 191)	2025	Updates EIA rules for smallscale mining projects; introduces EPA for projects under 1 hectare
Prakas No. 3591 on Development Project Classification	2025	Reclassifies projects by impact level; sets review periods and documentation standards
National Environmental Strategy and Action Plan (NESAP)	2017	Provides strategic direction for environmental governance and climate resilience

INDONESIA

LAW/POLICY	YEAR	DESCRIPTION
Mining Law No. 4/2009	2009	Regulates the whole mining sector
Mining Law No. 3/2020	2020	Revision of Mining Law No. 4/2009
MEMR Regulation No. 7/2020 and its changes	2020	Procedures for granting areas, licensing and reporting on mineral and coal mining business activities
Governmental Regulation No. 96/2021	2021	Mining business activity implementations
Governmental Regulation No. 5/2021	2021	Introduces a riskbased business licensing system
MEMR Ministerial Regulation Resources No. 5/2021	2021	Business activity and product standards in the implementation of risk-based business licensing in the energy and mineral resources sector

LAO PDR

LAW/POLICY	YEAR	DESCRIPTION
Law on Minerals No. 04/97 of Lao PDR (1997), amended 2017	1997, latest amendment 2017	Governs management, preservation, exploration, exploitation, and processing of minerals. Defines mineral ownership by the state and sets environmental and social safeguards
Law on Environment Protection	2012	Regulates environmental management, pollution prevention, natural resource conservation, and sustainable development in Lao PDR
Law on Forest	2019	Governs forest management, protection, restoration, utilisation, and the rights and responsibilities related to forest resources
Law on Land	2019	Provides legal framework for land use, ownership, registration, transfer, and land dispute resolution
Law on Taxation	2020	Establishes the tax system, tax administration, types of taxes, tax rates, taxpayer obligations, and enforcement mechanisms
Decree No. 90/PM (2008) on Export of Mining Products	2008	Regulates inspection, fees, customs duties, and taxes related to the export of mining products to comply with the laws
Decree on Environmental Standard for Lao PDR 2017	2017	Establishes environmental quality standards, permissible pollution levels, and monitoring requirements to ensure environmental protection and sustainable use of natural resources
Decree on Mines Closure 2020	2020	Sets out the procedures, responsibilities, and guarantees for mine closure, including environmental rehabilitation, financial assurance, and post-closure monitoring of mining sites
Decree on Penalty 2023	2023	Describes the administrative fines, penalties, and enforcement actions related to violations of laws and regulations, particularly environmental and natural resource management.
Decree on Community Development Fund in Mining Business 2023	2023	Governs the creation, management, and use of community development funds contributed by mining companies to support local development and social welfare projects in mining areas.
Ministry of Energy and Mines Decision No. 674/MOEM (2022) on Licensing for Mining Service Activities	2022	Sets new licensing requirements for activities such as exploration, exploitation, drilling, analysis, and consultancy related to mining.
Prime Minister's Order No. 06/PM, dated March 7, 2025	2025	Introduces reforms for sustainable mining, bans alluvial gold extraction techniques harmful to environment, suspends new metallic mineral project approvals temporarily, and enforces ecological restoration.
Ministry of Industry and Commerce (MOIC) Temporary Suspension of New Mining Licenses (Effective February 28, 2025)	2025	Improves mining regulations, enhance oversight, prevent illegal activities and ensure better qualifications for mining license applicants.

MALAYSIA

LAW/POLICY	YEAR	DESCRIPTION
Geological Survey Act (1974)	1974	Establishes the legal framework for conducting geological surveys in the country, regulating mineral exploration and mapping activities for resource development
Mineral Development Act (MDA) 1994	1994	Governs all matters related to mineral exploration, mining operations, licensing, safety and environmental protection in the mining sector
Mineral Development (Operational Mining Scheme, Plans and Record Books) Regulation 2007	2007	Specifies requirements for mining operation plans, record-keeping and reporting to ensure responsible and systematic mineral extraction
Mineral Development (Blasting) Regulation 2007	2007	Regulates blasting activities during mining to ensure safety measures and minimise environmental impact
Mineral Development (Safety in Exploration and Surface Mining) Regulation 2015	2015	Focuses on occupational health and safety standards specific to exploration and surface mining activities
Mineral Development (Licensing) Regulation 2016	2016	Outlines procedures, criteria and conditions for issuing mineral mining licences to individuals and companies
Mineral Development (Effluent) Regulation 2016	2016	Defines standards and guidelines for the treatment and disposal of mining effluents to prevent the pollution of water bodies
Mineral Development (Statistical Returns) Regulation 2019	2019	Mandates the submission of statistical data by mining operators to facilitate monitoring and planning by regulatory authorities
Mineral Development (Compounding of Offences) Regulation 2019	2019	Provides mechanisms for settling minor offences related to mineral development through compound penalties to expedite enforcement
National Mineral Policy (NMP) 3 – NRES	2024	Sets strategic direction for sustainable mineral resources management, including environmental conservation and industry growth
National Mineral Industry Transformation Plan (NMTP) 2021–2030 – NRES	2021	A long-term plan aimed at transforming the mineral sector through innovation, sustainability, value addition and enhancing competitiveness over the decade
National Green Technology Policy (NGTP) – MIDA	N/A	Promotes the adoption and development of green technologies within industrial sectors, including mining, to support environmental sustainability
Green Investment Tax Allowance (GITA) – MIDA	N/A	Provides tax incentives for investments in green technology and eco-friendly projects to encourage sustainable development
Green Income Tax Exemption (GITE) – MIDA	N/A	Offers income tax exemptions for green technology activities and businesses, supporting economic growth in sustainable sectors
National Planetary Health Action Plan (NPHAP) – MOSTI	N/A	A multisectoral framework designed to address planetary health challenges including climate change impacts on natural resource sectors
Green Technology Master Plan – MOSTI	N/A	Framework guiding research, development and deployment of green technologies to support climate goals and sustainable industry practices
Green Practices Guideline for Mining Sector (MyHIJAU) – NRES (Malaysian Green Technology and Climate Change Corporation – MGTC)	N/A	Provides practical guidelines and best practices for the mining sector to reduce its environmental footprint and improve resource efficiency using green technology principles

MYANMAR

LAW/POLICY	YEAR	DESCRIPTION
Law No. 008/1994 on Myanmar Mines	1994	Also known as the Myanmar Mines Law, it was established to oversee mining operations in Myanmar; its key goals include enacting the government's mineral resource policies, meeting local mineral demands, boosting exports, encouraging both domestic and foreign investment in minerals, and approving applications for prospecting, exploration and extraction
Rule No. 70/1995 on Myanmar Gems	1995	Governs the management and oversight of gem mining activities in the country
Law No. 07/1995 on Myanmar Pearls	1995	Governs the management and oversight of pearl mining activities in the country
Rule No. 48/2000 on Myanmar Pearls	2000	Governs Myanmar's pearl mining activities under the Law on pearls
Law No. 34/2014 on Amended Myanmar Pearls	2014	Amended Law on pearls
Law No. 72/2015 on Amended Myanmar Mines	2015	Amended Myanmar Law on mines
Law No. 23/2016 on Second Amended Myanmar Gems	2016	Amended Law on gems
Rule No. 13/2018 on Myanmar Mines	2018	Governs the Myanmar mining sector under the Myanmar Mines Law

PHILIPPINES

LAW/POLICY	YEAR	DESCRIPTION
Presidential Decree No. 1586 (EIS System)	1978	Establishes the environmental impact statement system; mandates environmental compliance certificates (ECCs) for environmentally critical projects
Republic Act No. 7942 (Philippine Mining Act)	1995	Governs mineral exploration, development, utilisation and conservation; requires environmental protection and rehabilitation programmes
DENR Administrative Order No. 9640	1996	Sets rules for progressive rehabilitation and postmining land use
Republic Act No. 8749 (Clean Air Act)	1999	Regulates air pollution sources and sets emission standards
Republic Act No. 9003 (Ecological Solid Waste Management Act)	2000	Provides a framework for solid waste management, including segregation, recycling and disposal
Republic Act No. 9275 (Clean Water Act)	2004	Protects water quality through wastewater regulation and waterbody classification
Republic Act No. 9729 (Climate Change Act)	2009	Integrates climate change adaptation and mitigation into national and local planning; created the Climate Change Commission
DENR Administrative Order No. 201021	2010	Implements rules for mine safety, environmental protection and rehabilitation under the Mining Act
Writ of Kalikasan	2010	A legal remedy for environmental rights violations affecting large populations
Republic Act No. 12253 (Enhanced Fiscal Regime for Large-Scale Metallic Mining Act)	2025	A simplified and uniform fiscal framework for large-scale metallic mining; guarantees an equitable share of mining revenues for the government, and upholds the principles of transparency, accountability, and good governance in the mining industry.

SINGAPORE

LAW/POLICY	YEAR	DESCRIPTION
Deep Seabed Mining Act	2015	Regulates deepsea mineral exploration by Singapore-sponsored entities under UNCLOS; requires environmental compliance and reporting to the International Seabed Authority (ISA)
Resource Sustainability Act	2019	Promotes circular economy and waste reduction relevant to mineral processing and industrial recycling
Carbon Pricing Act	2018	Introduces a carbon tax for large emitters, encouraging low-carbon practices in industrial sectors, including mining-related activities
SGX Sustainability Reporting Guidelines	2025 (updated)	Requires listed companies to disclose material ESG factors, climate risks and sustainability targets – mandatory TCFD-aligned disclosures by FY2025
MAS Environmental Risk Management Guidelines	2020	Applies to financial institutions investing in the mining and resource sectors; requires governance, risk assessment and ESG integration
Green Finance Action Plan	2019	Promotes sustainable investment and includes frameworks for financing mine closure and rehabilitation through green instruments

THAILAND

LAW/POLICY	YEAR	DESCRIPTION
National Environmental Quality Promotion and Conservation Act	1992	Core environmental law, requires EIAs/EHIAs for mining projects; regulates pollution control, hazardous waste and conservation
Factory Act	1992	Regulates industrial operations, including mineral processing, with standards for pollution control, waste management and safety Click or tap here to enter text.
Hazardous Substances Act	1992	Governs the use, storage, transport and disposal of hazardous substances, including those used in mining
Public Health Act	1992	Addresses environmental health risks from industrial activities, including mining, and empowers local authorities to enforce standards
Constitution of the Kingdom of Thailand	2017	Mandates environmental impact studies for high-risk projects and guarantees public participation and community rights
Minerals Act	2017	Governs mining rights, licensing and environmental responsibilities; requires mine closure and rehabilitation plans
Water Resources Act	2018	Regulates water use and conservation, including extraction and discharge by mining operations
Eastern Economic Corridor (EEC) Act	2018	Applies specific environmental requirements to projects within the EEC, including stricter EIA/EHIA procedures
National Parks Act	2019	Protects national parks and conservation areas; mining is restricted or prohibited in designated zones
Climate Change Bill	Ongoing	Introduces carbon pricing, emissions trading and GHG reporting obligations for high-emission sectors, including mining

TIMOR-LESTE

LAW/POLICY	YEAR	DESCRIPTION
Constitution of Timor-Leste (Art. 61)	2002	Guarantees the right to a healthy and ecologically balanced environment
Environment Basic Law (Decree-Law No. 26/2012)	2012	Establishes the legal framework for environmental protection and management
EIA and Licensing System (Decree-Law No. 5/2011)	2011	Mandates environmental impact assessments and licensing for development projects
Protected Areas Law (Decree-Law No. 5/2016)	2016	Creates a national system for protected areas and conservation zones
Biodiversity Law (Decree-Law No. 6/2020)	2020	Provides legal measures for biodiversity protection and sustainable use
Territorial Planning Law (Law No. 6/2017)	2017	Regulates land use planning to support sustainable development
National Climate Change Policy (Gov. Resolution No. 8/2022)	2022	Sets strategic direction for climate adaptation, mitigation and resilience
National Adaptation Plan (NAP)	Ongoing	Framework for climate adaptation aligned with UNFCCC commitments
Nationally Determined Contribution (NDC)	Ongoing	Timor-Leste's climate goals under the Paris Agreement
Strategic Development Plan 2011–2030	2011	Long-term national plan integrating environmental sustainability and development

VIET NAM

LAW/POLICY	YEAR	DESCRIPTION
Mineral Law	2010	Governs geological surveys, mineral exploration, mining and state mineral management; emphasises sustainable practices like environmental protection, security and socio-economic benefits; excludes oil, gas and some waters; requires official permits and advanced technology use
Master plans for mineral resources	2011	Under the Mineral Law, the government mandates the preparation of master plans for geological surveys, mineral exploration, mining, and utilisation to ensure the rational and efficient use of mineral resources
Law on Environmental Protection	2014	Establishes requirements for environmental protection applicable to mining activities, emphasising environmental and nature conservation during mining operations
Environmental Protection Law (Revised)	2020	Strengthens environmental protections, including mandatory environmental impact assessments (EIAs), environmental licences replacing EIA reports for operating projects, emission limits, pollution control and measures supporting a green and circular economy; consolidates environmental permits into a single document and aligns with climate commitments such as the Paris Agreement
Law on Geology and Minerals	2024	The new law replaces the 2010 Mineral Law; it introduces national policies on exploring and extracting strategic minerals, master planning, resource protection, circular economy principles, and the centralised management of geological and mineral data to promote sustainable economic and social development in Viet Nam
Resolution 68NQ/TW (2025)	2025	Strategic document emphasising Viet Nam's private economic sector, including mineral enterprises, with recommendations for institutional reforms, financial and managerial support, innovation and transparency to enhance competitiveness and sustainability development
Revised Law on Geology and Minerals	2025	Tentatively approved in early 2026

APPENDIX 2: LIST OF RELEVANT COUNTRY-LEVEL INTERNATIONAL STANDARDS, TREATIES AND CONVENTIONS

BRUNEI DARUSSALAM

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
ILO Convention No. 29	Forced labour	2023	Prohibits forced or compulsory labour in all sectors, including mining
ILO Convention No. 138	Minimum age	2011	Sets minimum age for employment (16 years)
ILO Convention No. 182	Worst forms of child labour	2008	Elimination of hazardous and exploitative child labour
ILO Convention No. 187	Occupational safety and health	2024	Promotes safe and healthy working conditions
UN Framework Convention on Climate Change (UNFCCC)	Climate change	2007	Framework for global climate action
Kyoto Protocol	Climate change	2009	Sets binding emission reduction targets
Paris Agreement	Climate change	2016	Commits to net zero emissions and climate resilience
ASEAN Agreement on Transboundary Haze Pollution	Regional environmental treaty	2003	Prevention and mitigation of forest fire related haze affecting mining and land use
UN Convention Against Corruption	Anticorruption	2011	Promotes transparency, accountability and anti-corruption measures
IFC Environmental, Health and Safety (EHS) Guidelines for Mining	ESG standard	Applicable to IFC financed projects	Provides global best practices for mining operations
IRMA Standard for Responsible Mining	ESG standard	Voluntary	Defines best practices for responsible industrial-scale mining

CAMBODIA

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
IFRS standards	Accounting standard	In progress	Global accounting standards. Applied by public companies and financial institutions; national adoption ongoing
IFC Performance Standards	Environmental and social	Applied to foreign-funded projects	Ensures ESG compliance for internationally financed mining and infrastructure
ILO conventions	Labour rights and safety	1969–2006	Protects workers' rights and safety in industrial sectors
UN Convention Against Corruption	Anticorruption	2007	Commitment to transparency and anticorruption in public and private sectors
UNFCCC (Paris Agreement)	Climate change	2017	Supports climate action and environmental sustainability
Convention on Biological Diversity (CBD)	Environmental protection	1995	Promotes biodiversity conservation and sustainable resource use
ASEAN Minerals Cooperation Action Plan (AMCAP)	Regional mining cooperation	Ongoing	Promotes responsible mineral development and regional collaboration

INDONESIA

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
Universal Declaration of Human Rights	UN declaration (non-binding)	Endorsed	Sets global human rights standards
International Covenant on Civil and Political Rights (ICCPR)	UN treaty	2006	Protects civil liberties and political rights
International Covenant on Economic, Social and Cultural Rights (ICESCR)	UN treaty	2006	Ensures rights to education, healthcare and work
Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	UN treaty	1984	Promotes gender equality
Paris Agreement (UNFCCC)	Climate treaty	2016	Reduction of greenhouse gas emissions
Kyoto Protocol	Climate treaty	2004	Sets binding emission reduction targets
Convention on Biological Diversity (CBD)	Environmental treaty	1994	Conserves biodiversity and promotes sustainable resource use
Basel Convention on Hazardous Waste	Environmental treaty	1993	Controls the transboundary movement of hazardous waste
WTO agreements (e.g. TRIPS, TBT, SPS)	Trade standards	Active member	Regulates global trade and intellectual property

LAO PDR

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
United Nations Framework Convention on Climate Change (UNFCCC)	Multilateral Environmental Agreement (MEA)	1993	Framework to stabilise greenhouse gas concentrations; guides national climate action plans
Paris Agreement (under UNFCCC)	MEA	2016	Strengthens global climate action
Convention on Biological Diversity (CBD)	MEA	1995	Promotes conservation and sustainable use of biodiversity impacted by mining and related sectors
ILO Convention No. 169 on Indigenous and Tribal Peoples	International Labour Convention	2014	Safeguards indigenous peoples' rights and ensures their consultation in projects like mining
Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	United Nations human rights treaty	1981	Eliminates discrimination against women, promoting gender equality including in extractive industries development and employment policies
Minamata Convention on Mercury	Multilateral Environmental Agreement (MEA)	2017	To protect human health and the environment from mercury emissions/releases, especially reducing/eliminating mercury use in artisanal and small-scale gold mining (ASGM), protecting ecosystems and vulnerable populations.

MALAYSIA

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
Universal Declaration of Human Rights	UN declaration (non-binding)	Endorsed	Sets global human rights standards
WTO agreements (e.g. TRIPS, TBT, SPS)	Trade standards	Active member	Regulates global trade and intellectual property
Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	UN treaty	1995	Promotes gender equality
Convention on Biological Diversity (CBD)	Environmental treaty	1994	Conserves biodiversity and promotes sustainable resource use
Cartagena Protocol on Biosafety	Protocol to CBD	2003	Regulates LMOs and biosafety
Basel Convention on Hazardous Waste	Environmental treaty	1993	Controls the transboundary movement of hazardous waste

MYANMAR

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
Convention on Biological Diversity (CBD)	Multilateral environmental	1992	Conservation of biological diversity, sustainable use of its components and fair benefit-sharing
UN Framework Convention on Climate Change (UNFCCC)	Multilateral environmental	1992	Stabilisation of greenhouse gas concentrations to prevent dangerous anthropogenic interference with climate
Basel Convention on Hazardous Waste	International treaty	2015	Controls the transboundary movement and disposal of hazardous waste to protect human health and the environment

PHILIPPINES

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
IFC Performance Standards	Environmental and social	Applied to foreign-funded projects	Ensures ESG compliance for internationally financed mining and infrastructure
IRMA Standard for Responsible Mining	Voluntary ESG standard	Adoption in progress	Promotes responsible mining practices; used by select large firms
ILO conventions	Labour rights and safety	1948–2006	Protects workers' rights, safety and the rights of indigenous peoples
UN Convention Against Corruption	Anticorruption	2006	Supports transparency and anticorruption in governance
UN Framework Convention on Climate Change (UNFCCC)	Climate and environment	1992	Guides national climate policy and emissions reduction
Convention on Biological Diversity (CBD)	Environmental protection	1993	Promotes biodiversity conservation in mining zones
Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)	Human rights and gender equality	1981	Influences gendersensitive mining and development policies
PHEITI (Philippines EITI)	Transparency initiative	2013	Promotes systematic disclosures and contract transparency
SEC ESG Reporting Guidelines	Corporate governance	Voluntary (2020s)	Encourages ESG disclosures for listed companies

SINGAPORE

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
UN Convention Against Corruption	Anticorruption treaty	2009	Promotes transparency and integrity in international investment
ILO core conventions	Labour rights	Various (28 ratified)	Covers equal pay, occupational safety and non-discrimination
Paris Agreement	Climate treaty	2016	Supports climate action and sustainable investment practices
Bilateral investment treaties (BITs)	Investment protection	50+ signed, 30+ in force	Includes BITs with Indonesia, Myanmar, the UAE, Mexico and others
Free trade agreements (FTAs)	Trade and investment frameworks	28 in force	Many include investment chapters with ESG-related provisions
International investment agreements (IIAs)	Investment governance	Active	Provides investor protections and dispute resolution mechanisms
IFC Performance Standards	ESG standards for projects	Applied to foreign-funded projects	Ensures environmental and social compliance in international investments
ISSB, TCFD, GRI Standards	ESG reporting frameworks	Adopted by SGX	Guides sustainability disclosures for listed companies
Kimberley Process Certification Scheme (KPCS)	Conflict-free mineral trade	Participating	Ensures ethical sourcing of diamonds and other minerals

THAILAND

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
ILO conventions	Labour rights and safety	1969–2017	Protects workers' rights and safety in industrial sectors
UN Framework Convention on Climate Change (UNFCCC)	Climate change	1994	Framework for global climate action
UN Convention Against Corruption	Anticorruption	2011	Promotes transparency, accountability, and anti-corruption measures
Paris Agreement	Climate change	2016	Commits to climate action and net-zero emissions by 2065
ASEAN Taxonomy for Sustainable Finance	Regional ESG classification	2021	Guides sustainable investment and finance in Southeast Asia
IFC Performance Standards	Environmental and social	Applied to foreignfunded projects	Ensures ESG compliance for internationally financed mining projects
GRI Standards	Sustainability reporting	Voluntary adoption	Used by listed and large companies for ESG disclosures
TCFD framework	Climate risk disclosure	Voluntary adoption	Guides companies in disclosing climate-related financial risks
Equator Principles	Project finance ESG	Voluntary adoption	Risk management framework for financial institutions in project finance
IRMA Standard	Responsible mining	Voluntary adoption	Thirdparty audit framework for ethical mining practices
IFC Performance Standards	Environmental and social	Applied to foreignfunded projects	Ensures ESG compliance for internationally financed mining and infrastructure
IFRS Sustainability Disclosure Standards	Accounting and ESG reporting	In progress	Global baseline for sustainability-related financial disclosures

TIMOR-LESTE

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
IFRS standards	Accounting standards	In progress	Global accounting standards. Large SOEs and the Petroleum Fund comply; national standards are under development
IEC standards	Energy and environment	Affiliate member	Supports renewable energy deployment and electrification
ILO fundamental conventions	Labour rights	2009–2016	Includes conventions on forced labour, child labour, equal pay and non-discrimination
UN Convention on the Law of the Sea (UNCLOS)	Maritime law	2013	Basis for maritime boundary negotiations and resource rights
TimorLeste–Australia Maritime Boundary Treaty	Bilateral treaty	2018	Establishes permanent maritime boundaries and joint resource development
Geneva Conventions (I–IV) and their Additional Protocols (I–III)	International humanitarian law	2003–2011	Provides protection during armed conflict

VIET NAM

INSTRUMENT	TYPE	YEAR RATIFIED/JOINED	PURPOSE/SCOPE
United Nations Framework Convention on Climate Change (UNFCCC)	International environmental treaty	1992	Addresses climate change mitigation and adaptation, including efforts relevant to mining and resource extraction emissions and sustainability commitment
United Nations Convention on the Law of the Sea (UNCLOS)	International maritime treaty	1994	Regulates exploration and exploitation of seabed minerals in maritime zones; relevant for offshore mining
Paris Agreement (under UNFCCC)	International climate accord	2015	Limits global warming and greenhouse gas emissions, affecting mining sector operations through climate policies
Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)	Trade agreement	2018	Includes provisions on foreign investment in mining, market access for mining-related goods, and tariff reductions to support mining modernisation
EU–Viet Nam Free Trade Agreement (EVFTA)	Trade agreement	In force since 2020	Market access and investment protection for mining sector; adoption of core labour standards; facilitation of technology transfer, and tariff reductions on mining equipment

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