Regulatory Environment Assessment in the Mining Sector

Methodology Handbook

The Regulatory Environment Assessment of the Mining Sector is a product of the World Bank Group's Regulatory Efficiency Unit (DECRE), part of the Policy Indicators Group (DECIG). The assessment supports World Bank's strategic priorities by identifying regulatory barriers that constrain private investment, firm entry, and expansion in the sector. Using quantitative, primary data, it captures the challenges faced by firms operating across the industry — mapping the steps and agencies involved in key licensing and permitting processes to assess their efficiency and identify both barriers and enablers to firm growth.

Note: The methodology handbook is subject to further revisions.

WHY ASSESSING THE REGULATORY EFFICIENCY OF THE MINING SECTOR?

Mining is central to economic transformation in many countries, contributing to fiscal revenues, exports, and jobs.[1] It generates significant government revenues through taxes and royalties, supports millions of direct and indirect jobs across exploration, extraction, processing, and logistics, and stimulates infrastructure development.

For sustainable growth in mining, it is essential to prioritize comprehensive process mapping that ensures regulatory procedures are consistently efficient, transparent, and predictable in practice.[2] Rather than focusing solely on the regulatory framework itself, process mapping provides clarity on how regulations are implemented, identifies bottlenecks, and highlights opportunities for improvement—ultimately fostering an environment where mining operations can expand responsibly and reliably. Close attention should be paid to streamlined licensing for exploration and operations, strong environmental and social safeguards, land access approvals, and transparent permitting processes.

Assessing the mining sector's regulatory environment is essential for identifying barriers and enablers for responsible exploration and operations, and for designing reforms that unlock the sector's full economic, social, and environmental potential.[3] A well-functioning business environment helps align private investment with public policy objectives, including job creation, local value addition, and environmental and social sustainability.

- **Job Creation**: Mining has significant job potential, not only through direct employment in extraction but also through catalyzing indirect employment across supply chains and services, including transportation, logistics, equipment manufacturing, construction and business services.[4]
- **Specialized Regulatory Framework**: Mining firms operate under a legal and institutional framework, typically covering licensing, geological data management, land access, environmental oversight, health and safety, mine closure, and fiscal administration. The coherence and predictability of this framework are critical to balancing investment attractiveness with robust protection for people and the environment.[5]
- **Bureaucratic burden**: Poorly designed regulatory processes undermine policy objectives. Complex and costly procedures can push operators, particularly artisanal and small-scale miners, toward informality or non-compliance. This, in turn, weakens environmental and social protections, erodes the tax base, and exacerbates conflicts over land and resources.[6]
- **Potential Efficiency Gains**: There is potential for efficiency gains through targeted regulatory reforms. Streamlined and transparent procedures, supported by clear process mapping and predictable timelines, reduce both time and transaction costs for both government and investors.

[1] World Bank Group. 2013.
[2] World Bank Group. Regulatory Efficiency Assessments – Mining. Brochure.
[3] Ibid.
[4] World Bank Group. 2025a.
[5] World Bank Group. 2021.
[6] World Bank Group. 2019.

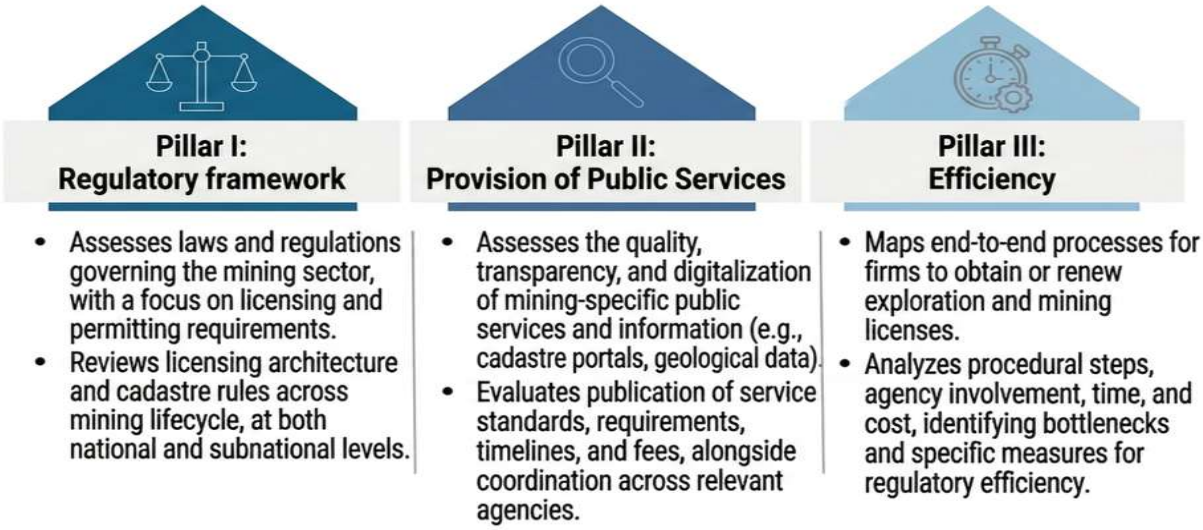
- **Subnational Variations:** There can be substantial differences in regulatory quality and administrative practices among subnational locations.[7] Differences in how rules are applied across regions affect market entry, project development timelines, operating costs, and investor confidence. Local-level data on such subnational variations are thus essential to inform the policy agenda.

Regulatory Efficiency Assessment of the Mining Sector supports the World Bank's strategic priorities in the mining sector by providing primary quantitative data on the unique challenges and conditions faced by firms entering and operating in the sector. It also supports the energy transition agenda by improving the enabling environment for the extraction of critical and transition minerals.

MEASUREMENT FRAMEWORK

The methodology handbook is designed to be adaptable to country specific contexts and needs. Parameters can also be modified to assess the business environment faced by projects with different characteristics, such as scale, geographic location, or type of operator. The cross-sectoral Business Ready (B-READY) framework offers a balanced approach to evaluating key dimensions of the business environment and is structured around the three core pillars (see **Figure 1**). These pillars assess regulatory framework, delivery of mining-specific public services, and the *de facto* efficiency of regulatory processes.

Figure 1. The three-pillar approach of the Regulatory Efficiency Assessment in the Mining Sector



Source: DECRE team

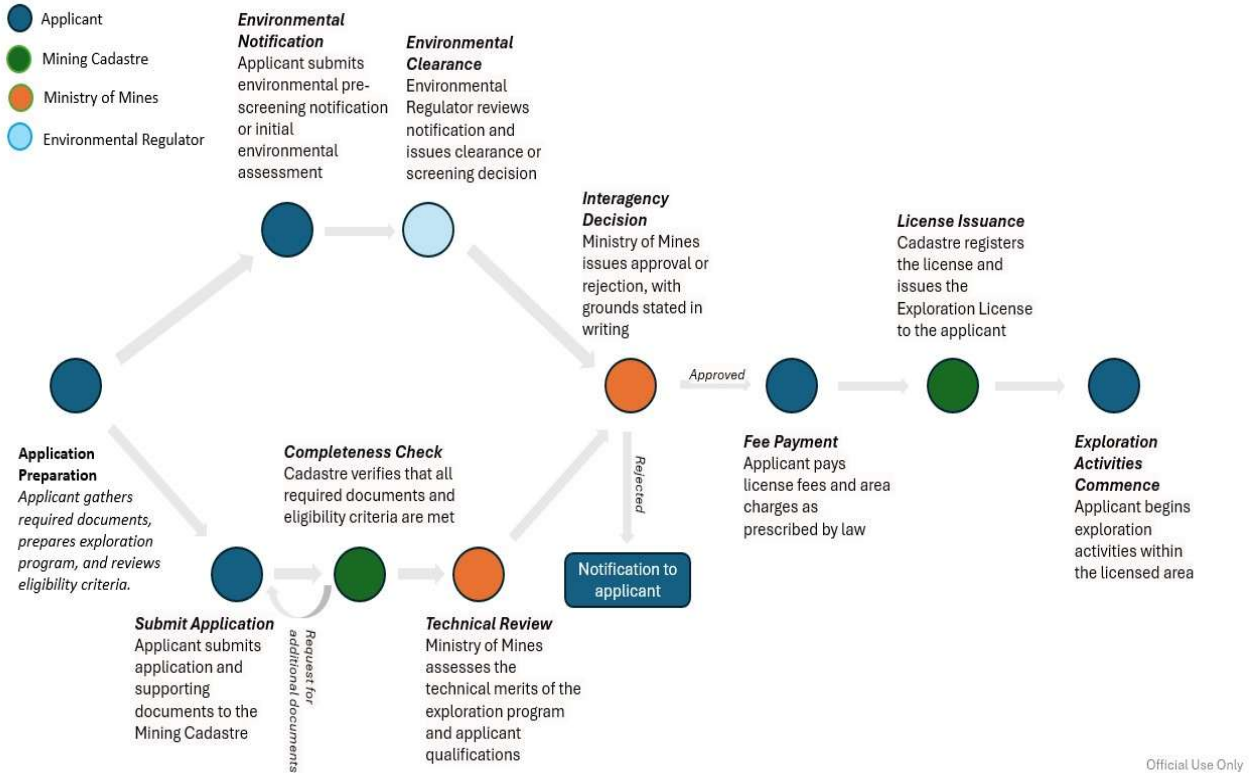
Pillar I – Regulatory Framework: Assesses laws and regulations governing the mining sector, with a focus on licensing and permitting requirements for mining companies and entrepreneurs – across national and subnational levels. It reviews licensing architecture and cadastre rules across the mining sector, identifies duplicative or outdated provisions, including mining-specific standards, and assesses alignment with international good practice.

[7] World Bank. 2025b.

Pillar II – **Provision of Public Services**: Assesses quality, transparency, and digitalization of mining-specific public services and information—most notably cadastre and licensing portals as well as geological information systems and mapping—alongside publication of guidance, service standards, requirements, timelines, and fees. The pillar also assesses coordination across the relevant agencies, including regional cadastre offices, the geological survey, environmental and social regulators, labor inspectorates, and subnational authorities.

Pillar III – **Efficiency**: Maps end-to-end processes for new and existing firms to obtain exploration and mining licenses. It analyzes procedural steps, agency involvement, and the time and cost associated with each step, identifying bottlenecks and providing recommendations to streamline procedures and reduce administrative burdens. For illustrative purposes, Figure 2 demonstrates a standard process map generated under Pillar III, detailing the sequence of steps, interagency coordination, and clearances required for an applicant to obtain an exploration license.

Figure 2. Process for Obtaining an Exploration License (Illustrative Example Only; Actual Requirements Vary by Jurisdiction)



Source: DECRE team

Data Sources

Data are commonly collected through administering quaternations to both public and private sector experts. In addition, further consultations and follow-up are conducted with private sector experts

(for example, mining lawyers, regulatory affairs leads in mining companies, geologists, surveyors, environmental and social specialists, and engineers) and public-sector authorities (for example ministry in charge of mines, mining cadastre and its regional offices, the geological survey, environmental and social regulators, labor/health and safety inspectorates, and local governments). Civil society organizations and community representatives may also be consulted where relevant. Public-sector respondents verify and complement the information provided by private sector experts, ensuring that both *de jure* rules and *de facto* practices are captured by the study.

PROJECT CYCLE

The *Regulatory Efficiency Assessment of the Mining Sector* follows a structured project cycle. Each assessment begins with comprehensive background research on the sector's relevance and its contribution to private sector growth, followed by five core steps:

1. Stakeholder engagement (national and subnational)

DECRE convenes meetings and workshops with public and private stakeholders to identify business environment gaps, gather evidence, and obtain context-specific feedback to support effective implementation.

2. Questionnaire adaptation to country-specific context

DECRE develops country-tailored questionnaires to generate indicators across the three pillars. The standardized questionnaire is modified to incorporate inputs from academics, World Bank experts, regional teams, country management units, and private sector practitioners. Preliminary process mapping steps are also identified at this stage of the preparatory cycle.

3. Data collection and analysis

DECRE collects primary, disaggregated data from mining companies, private sector experts, government entities, and civil society on both *de jure* and *de facto* processes. Responses are validated through follow-up interviews, data discrepancies are reconciled by the team, and findings are further substantiated through the revision of official secondary sources, such as official regulatory websites and data platforms.

4. Publication

DECRE produces a sectoral business environment assessment for the country, drawing on primary data to analyze regulatory implementation and public service delivery in the mining sector. The assessment presents key findings, highlights good practices—or their absence—and identifies constraints affecting private sector development at the regional and national levels.

5. Knowledge dissemination

DECRE shares findings and lessons learned to support evidence-based reforms and regional development through workshops, presentations, and conferences.

REFERENCES

World Bank. 2013. Mining: Sector Results Profile. Washington, DC: World Bank Group. https://www.worldbank.org/en/results/2013/04/14/mining-results-profile

World Bank. Regulatory Efficiency Assessments – Mining. Brochure, Regulatory Efficiency. DECIG. Washington, DC: World Bank Group. https://www.worldbank.org/content/dam/sites/b-ready/subnational/document/pdfs/DECRE%20-%20Mining%20Brochure1.pdf

World Bank. 2025a. Transforming Metals and Minerals into Jobs and Lasting Prosperity. Washington, DC: World Bank Group. https://www.worldbank.org/en/news/immersive-story/2025/12/12/turning-minerals-and-metals-into-development

World Bank. 2021. Mining Sector Diagnostic (MSD) Brief. Washington, DC: World Bank Group. https://www.worldbank.org/en/programs/egps/brief/mining-sector-diagnostic-msd

World Bank. 2019. State of the Artisanal and Small-Scale Mining Sector. Washington, DC: World Bank Group. https://openknowledge.worldbank.org/handle/10986/32597

World Bank. 2025b. Copper Mining in Zambia: Regulatory Efficiency Assessment in the Copperbelt and North-Western Provinces. Washington DC: World Bank Group. https://www.worldbank.org/en/regulatoryefficiency/economy/zambia

World Bank. 2025c. Mining Sector Diagnostic (MSD) Cheat Sheet (English). Washington, D.C. : World Bank Group. https://documentsinternal.worldbank.org/Search/40064966

World Bank. 2025d. Jobs: The Path to Prosperity. Washington, DC: World Bank Group. https://www.devcommittee.org/content/dam/sites/devcommittee/doc/documents/2025/Final_DC2025-0002.pdf

Ostensson, O., & Roe, A. (2017). International Labour Organization. Retrieved from Sustainable Mining: How good practices in the mining sector contribute to more and better jobs. https://www.ilo.org/media/421756/download

International Energy Agency (IEA). 2023. Critical Minerals Market Review 2023, IEA, Paris https://www.iea.org/reports/critical-minerals-market-review-2023

International Energy Agency (IEA). Policies database. Paris. https://www.iea.org/policies