

KAZAKHSTAN AS A MINERALS INVESTMENT HUB: **UNLOCKING POTENTIAL THROUGH THE AIFC**



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Astana / August 2025

FOREWORD

FROM THE GOVERNOR OF THE ASTANA
INTERNATIONAL FINANCIAL CENTRE

Dear Readers,

I am pleased to introduce the report “Kazakhstan as a Minerals Investment Hub: Unlocking Potential through the AIFC” prepared by the Astana International Financial Centre.

Kazakhstan is home to vast reserves of critical and industrial minerals that are increasingly vital to the global economy. From copper and uranium to rare earth elements, the country’s mineral wealth - combined with its strategic geography - offers significant opportunities for investors seeking long-term, sustainable returns.

The report explores a vision of Kazakhstan as a minerals investment hub, positioning the country not only as resource-rich, but as a competitive player in the global energy transition. It provides an in-depth analysis of Kazakhstan’s mining sector, outlining key trends, investment prospects, and comparative advantages, while also highlighting structural challenges, including infrastructure, ESG, and capital market access.

The AIFC is proud to contribute to the development of Kazakhstan’s mining ecosystem by offering a modern, reliable platform for financing and structuring mining ventures. Based on principles of the English common law, transparent regulation, and access to capital through the Astana International Exchange, the AIFC is uniquely positioned to connect global investors with the region’s mineral potential.

We hope this report serves as a practical and forward-looking guide for investors, policymakers, and stakeholders who are shaping the future of mining in Central Asia.

Sincerely,
Renat Bekturov

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ABBREVIATIONS AND ACRONYMS

| | |
|----------------|--|
| AFSA | Astana Financial Services Authority |
| AIFC | Astana International Financial Centre |
| AIX | Astana International Exchange |
| CAGR | Compound Annual Growth Rate |
| CEOL contracts | Contrato Especial de Operación del Litio – Special Lithium Operation Contract |
| CRIRSCO | Committee for Mineral Reserves International Reporting Standards |
| DRC, DR Congo | Democratic Republic of Congo |
| EV | Electric Vehicles |
| FDI | Foreign Direct Investments |
| GDP | Gross Domestic Product |
| GKZ | Gosudarstvenny Komitet po Zapasam Poleznykh Iskopaemykh – State Committee for Mineral Reserves |
| IEA | International Energy Agency |
| ESG | Environmental, Social and Governance |
| ICMM | International Council on Mining and Metals |
| IAC | International Arbitration Center |
| IRMA | Initiative for Responsible Mining Assurance |
| JORC | Joint Ore Reserves Committee |
| JSC | Joint Stock Company |
| JV | Joint Venture |
| OEM | Original Equipment Manufacturers |
| REE | Rare earth elements |
| REM | Rare earth metals |
| UAE | United Arab Emirates |
| USGS | United States Geological Survey |
| TCFD | Task Force on Climate-related Financial Disclosures |

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1.0

EXECUTIVE
SUMMARY

Kazakhstan is well-positioned to capitalize on the global shift toward critical minerals. With demand accelerating, it can emerge as a pivotal supply chain state. Unlocking this potential will require significant capital to expand exploration, particularly in the junior mining segment, ESG alignment, and the continued pursuit of the current vector aimed at improving the investment environment.

Global market dynamics are rapidly shifting toward critical minerals.

Driven by the global energy transition, demand for lithium, cobalt, rare earths, and copper is expected to multiply over the next two decades. Investors increasingly view mining as a strategic asset class. Yet junior miners face persistent capital constraints due to risk perceptions and underdeveloped financial ecosystems.

Kazakhstan holds a rare combination of resource endowment, geopolitical neutrality, and geographic centrality.

As the world's largest uranium producer and a holder of significant reserves of copper, rare earths, and lithium, Kazakhstan sits at the heart of Eurasian trade corridors. It presents a credible alternative to higher-risk jurisdictions - provided regulatory, legal, and ESG challenges are addressed.

To attract global capital, it will be important for Kazakhstan to strengthen its upstream and midstream ecosystems.

Mining code reforms and the strategic role of the Astana International Financial Centre (AIFC) provide a strong foundation. Enhancing financing mechanisms for early-stage exploration and expanding domestic refining capacity are critical next steps.

The AIFC can catalyze capital formation and investor confidence.

With its English common law framework, tax incentives, and growing suite of green finance instruments, the AIFC is emerging as a credible jurisdiction for structured listings, arbitration, and joint venture formation. Recent redomiciliations and rising junior mining activity reinforce this momentum.

To compete with leading jurisdictions, Kazakhstan may benefit from placing greater emphasis on incentivizing and promoting junior mining and exploration, alongside other key priorities. With an estimated \$2.1 trillion in global capital needed for mining by 2050, the country has a unique opportunity to position itself not just as a resource-rich jurisdiction, but as a credible partner in the global energy transition.

2

STRATEGIC CONTEXT: GLOBAL TRENDS & CAPITAL FORMATION IN MINING

SECTION SUMMARY

The global mining industry is shifting from bulk commodities to critical minerals such as lithium, rare earths, nickel, and cobalt, driven by the energy transition, digitalization, and supply chain realignment. While strategic investors are actively seeking upstream access, early-stage exploration is underfunded. ESG compliance is now a prerequisite for capital, and investment remains geographically concentrated. Emerging resource regions like Kazakhstan are well-placed to attract significant capital, leveraging their geological base.

KEY INSIGHTS

- 1 Mining's repositioning from a volatile, commodity-driven sector to a cornerstone of long-term economic security is reshaping institutional and DFI capital allocation.
- 2 Kazakhstan has significant mineral resources, but survey-based rankings place it lower on global attractiveness, shaped by a mix of policy perceptions, geological assessments, and regional trends.
- 3 The capital disconnect between strategic players and public markets threatens the long-term exploration pipeline.
- 4 ESG alignment is a non-negotiable condition for institutional investment and market access.

KEY NUMBERS

\$2.1 trillion

Estimated global mining investment needed by 2050

4x to 6x

projected growth in demand for critical minerals by 2040

70%

of global exploration budgets were allocated to just six countries in 2023

90%

share of China's processing of rare earth metals

2.1

PURPOSE, SCOPE AND AUDIENCE

This report examines the positioning of Kazakhstan as an emerging global mining investment hub, emphasizing the strategic role of the AIFC in unlocking capital, and fostering an investor-friendly ecosystem. It seeks to bridge the information gap for international and local investors, highlight insights specific to the region, and provide a data-driven assessment of:



The current state and trajectory of Kazakhstan's mining sector within a global investment context.



Structural and institutional challenges impeding capital flow into mineral exploration and development.



The enabling legal, financial, and regulatory role of the AIFC in catalyzing mining-related investment.



Comparative analysis of mining in Kazakhstan against other leading mining jurisdictions.



Emerging opportunities in critical and strategic minerals, aligned with global energy transition trends and supply chain realignments.

The intended audience includes institutional investors, mining companies, multilateral development institutions, and policymakers seeking an informed view of Kazakhstan's potential and the mechanisms for market entry.

2.2

GLOBAL MINING INVESTMENT TRENDS

A SHIFTING PARADIGM: FROM BULK COMMODITIES TO CRITICAL MINERALS

Over the past decade, the global mining industry has undergone a significant strategic shift. Once focused primarily on bulk commodities like iron ore and coal, investment priorities are now increasingly centered on critical minerals - such as lithium, rare earth elements, nickel, and cobalt - driven by the accelerating global transition to renewable energy, electric mobility, and digitalization.

According to the International Energy Agency (IEA¹), demand for critical minerals

is projected to grow by 4x to 6x by 2040 under sustainable development scenarios. This surge has triggered a strategic re-evaluation of supply security, with governments and industries alike seeking to diversify sources away from high-risk jurisdictions and toward stable, investable geographies.

In terms of geological potential for critical mineral resources, Central Asia, with Kazakhstan at the forefront, remains the principal area of focus, complemented by growing exploration efforts in Africa and South America.

¹ <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/executive-summary>

STRUCTURAL REPRICING OF MINERALS AS A STRATEGIC ASSET CLASS

The mining industry is undergoing a strategic repricing driven by converging macroeconomic forces:



The global energy transition (requiring a sharp ramp-up in critical minerals).



Monetary tightening and realignment of capital flows post-COVID.



Geopolitical decoupling and reshoring of supply chains.

Mining is no longer viewed as a cyclical, commodity-driven sector - but increasingly as a strategic lever for economic resilience, industrial competitiveness, and national security. This reclassification is reshaping capital allocation priorities across institutional portfolios, sovereign wealth funds, and development finance institutions.

THE SURGE IN DEMAND FOR CRITICAL MINERALS

Global decarbonization efforts are accelerating demand for a range of energy-transition minerals. According to the IEA's "The Role of Critical Minerals in Clean Energy Transitions"²:



Lithium demand could rise 42x by 2040 under net-zero scenarios.



Demand for copper, nickel, cobalt, and rare earth elements is expected to at least double by 2035.



Global mineral demand for EVs and battery storage alone may increase over 30-fold by 2040.

Simultaneously, global inventories of these minerals are tight, project pipelines are underdeveloped, and permitting timelines are often protracted - creating a long-duration supply deficit and structurally higher price environment for key inputs.

² <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>

CAPITAL MARKET HESITATION VS. STRATEGIC INTEREST

Despite long-term structural drivers underpinning the mining sector - particularly in critical minerals - capital market engagement remains inconsistent, especially for early-stage exploration projects, reflecting a growing capital disconnect:



Strategic stakeholders - such as battery manufacturers, sovereign wealth funds, and development finance institutions - are eager to secure an upstream mineral supply through joint ventures, offtake agreements, and co-investment models.



On the other hand, equity markets remain cautious, particularly regarding greenfield exploration in emerging and frontier markets.

Addressing these financing needs requires solutions such as blended finance, structured joint ventures, sovereign co-investments, transparent mechanisms for capital formation and exit - all of which can be facilitated through the AIFC.

may dry up, undermining future supply security. Addressing this gap requires innovative financing platforms, public-private co-financing, and legal & regulatory ecosystems that can de-risk early-stage exploration investment.

Kazakhstan's mineral potential, when paired with an enabling capital market platform, could help bridge the current capital gap and attract the next wave of strategic investment into Eurasia's resource frontier

Compounding the challenge is a notable shift in budget allocation by major mining firms, who are prioritizing late-stage and near-mine exploration. These firms are leveraging scale, low cost of capital, and ESG frameworks to dominate strategic resource

plays - leaving smaller firms capital-constrained and vulnerable to dilution or acquisition.

The implications are profound: if the junior segment remains underfunded, the long-term pipeline of mineral discoveries

In this context, the AIFC has a strategic opportunity to act as a platform for:



Capital formation via structured listings and exploration funds.



Risk-mitigated JV structuring with foreign and local partners.



Legal and regulatory certainty under English common law.



Access to global investors and green finance instruments through its alignment with ESG and climate disclosure standards.

ESG AND LICENSE TO OPERATE: A CAPITAL GATEKEEPER

Environmental, Social, and Governance (ESG) criteria have become a precondition for capital access:



Majority of institutional funds now have ESG mandates. A 2024 MSCI/Hoover³ survey found that about 75% of European and ~50% of North American institutional investors operate under formal ESG mandates, another Deloitte/Tufts⁴ study reports ~79% of global investors have sustainable investment policies. Morgan Stanley's "Sustainable Signals" survey (2024)⁵ showed 78% of asset managers and 80% of asset owners expect growth in sustainable investments - and 80% say ESG factors influence their portfolio risk management



ESG risks - particularly in water usage, community displacement, and carbon intensity - are driving project denials or delays (e.g., Rio Tinto's Serbia lithium project, Northern Dynasty's Pebble mine in Alaska).



Investors are demanding adherence to ICMM, TCFD, and IRMA standards, transparent impact reporting, and community consent frameworks (FPIC).

Kazakhstan's ability to embed ESG-compliant practices into its legal, tax, and permitting regimes will be pivotal to unlocking long-duration capital.

³ https://www.hoover.org/sites/default/files/2024-05/2024-cgri-msci-sustainability-survey-FINAL.pdf?utm_source

⁴ https://www.esgtoday.com/80-of-global-investors-now-have-sustainable-investment-policies-in-place-deloitte-tufts-survey/?utm_source

⁵ https://www.morganstanley.com/press-releases/morgan-stanley-sustainable-signals-survey-?utm_source

INVESTMENT CONCENTRATION AND SUPPLY CHAIN RISKS

Despite increasing demand, mining investment remains geographically concentrated. In 2023, over 70% of global exploration budgets were allocated to just six countries - Australia, Canada, the U.S., Chile, Peru, and Mexico (S&P Global Market Intelligence)⁶. At the same time, supply chain vulnerabilities have become evident:



At present China produces 60% of the world's rare earths but processes nearly 90%. This means it also imports rare earth materials from other countries for refining, effectively giving China an undisputed dominance in the rare earth supply chain.⁷



In 2024, China's dominance in rare earth refining remained largely unmatched. Outside of China, significant industrial-scale refineries included Lynas in Malaysia, MP Materials in the United States, Vietnam Rare Earth JSC (VTRE) in Vietnam - despite ongoing legal matters since 2023 - and Neo Performance Materials' Silmet facility in Estonia.

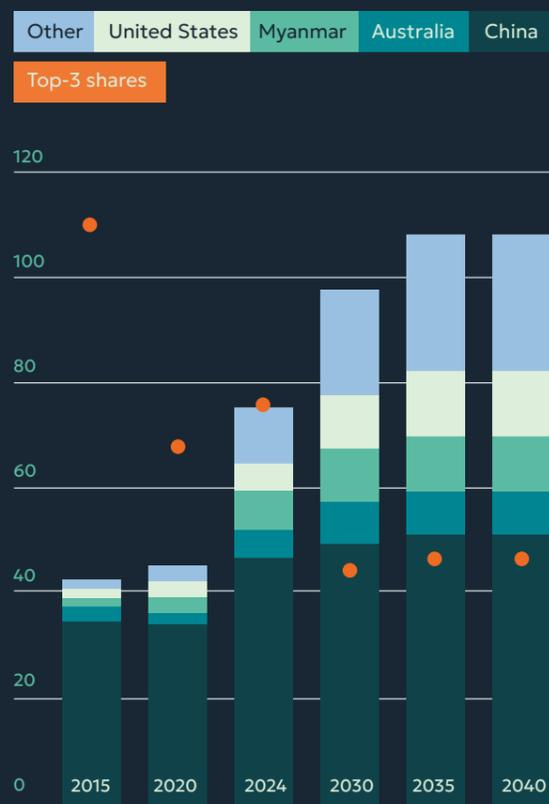


Benchmark Minerals Intelligence has highlighted a critical vulnerability in the U.S. supply chain for heavy rare-earth elements: China controls 99% of global heavy rare-earth processing. This near-total control means the United States faces significant exposure to export constraints and geopolitical risk in securing heavy rare earths.

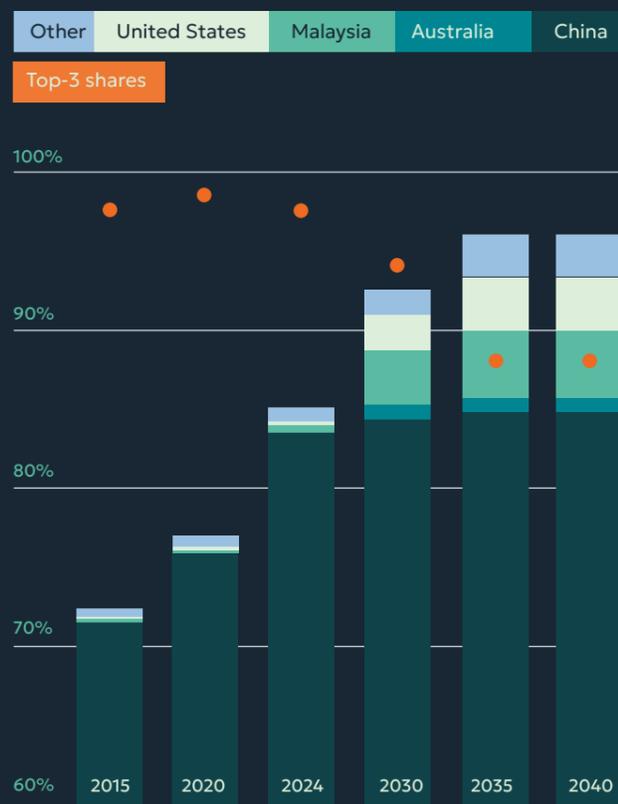
Figure 1. Rare earth metals production from operating and announced project, 2015 - 2040

Source: International Energy Association (IEA)

Mining



Refining



These factors are pushing capital to previously overlooked but geologically endowed regions, provided they can offer regulatory stability, legal predictability, and access to capital markets.

According to the Fraser Institute's Annual Mining Survey (2023)⁹, Kazakhstan is currently considered low-ranked in mining investment terms (79th globally, among top 10 low-ranked).



Despite its abundant mineral potential, Kazakhstan's current position reflects a mix of policy and operational challenges - such as permitting inefficiencies, perceived regulatory opacity, and logistical constraints.



These factors, however, also point to significant upside: with targeted reforms in regulation, infrastructure, and capital market access, Kazakhstan could substantially improve its attractiveness to global investors.

⁶ https://www.spglobal.com/market-intelligence/en/news-insights/research/world-exploration-trends-2024?utm_source
⁷ https://www.csis.org/analysis/what-chinas-ban-rare-earths-processing-technology-exports-means?utm_source

⁸ https://source.benchmarkminerals.com/article/higher-prices-needed-to-develop-ex-china-rare-earths-supply?utm_source
⁹ <https://www.fraserinstitute.org/sites/default/files/2023-annual-survey-of-mining-companies.pdf>

PRICE OUTLOOK FOR KEY COMMODITIES

Consensus projections indicate a mixed but generally positive trajectory for key mined commodities, especially those tied to energy transition. Price forecasts reflect expected tightness in supply for critical and precious metals, coupled with macroeconomic uncertainty and industrial demand realignment.

Figure 2.

Consensus commodity target prices,
2025 - 2029

Source: S&P Global Market Intelligence¹⁰

Green indicates an increase compared to the previous month's forecast, while orange shows a decrease.

| Commodity | Price as of June 30, 2025 | Q3 2025F | 2024 | 2025F | 2026F | 2027F | 2028F | 2029F |
|-------------------|---------------------------|----------|----------|----------|----------|----------|----------|----------|
| Gold (\$/oz) | 3,307.70 | 3,080.22 | 2,402.35 | 2,990.38 | 2,958.69 | 2,868.61 | 2,790.42 | 2,692.46 |
| Silver (\$/oz) | 36.17 | 32.76 | 28.44 | 32.20 | 32.46 | 31.90 | 31.62 | 30.42 |
| Platinum (\$/oz) | 1,334.00 | 1,062.33 | 959.22 | 1,018.82 | 1,104.29 | 1,133.28 | 1,149.1 | 1,177.00 |
| Palladium (\$/oz) | 1,107.10 | 1,005.13 | 981.71 | 995.01 | 1,048.56 | 1,059.95 | 1,028.45 | 1,001.88 |
| Aluminum (\$/lb) | 1.18 | 1.11 | 1.18 | 1.15 | 1.18 | 1.23 | 1.23 | 1.22 |
| Cobalt (\$/lb) | 14.92 | 14.70 | 11.95 | 13.30 | 14.54 | 17.91 | 18.33 | 19.90 |
| Copper (\$/lb) | 5.08 | 4.30 | 4.23 | 4.29 | 4.39 | 4.47 | 4.51 | 4.63 |
| Iron ore (\$/t) | 94.52 | 94.30 | 109.05 | 99.31 | 93.74 | 90.04 | 89.02 | 89.38 |
| Lead (\$/lb) | 0.94 | 0.91 | 0.99 | 0.93 | 0.93 | 0.93 | 0.92 | 0.92 |
| Nickel (\$/lb) | 6.98 | 7.29 | 8.22 | 7.39 | 7.89 | 7.95 | 8.33 | 8.74 |
| Tin (\$/lb) | 15.35 | 12.85 | 13.69 | 12.34 | 12.66 | 11.95 | 12.10 | 11.34 |
| Zinc (\$/lb) | 1.25 | 1.22 | 1.29 | 1.24 | 1.25 | 1.23 | 1.22 | 1.21 |
| Uranium (\$/lb) | 79.25 | 77.11 | 86.43 | 75.74 | 83.91 | 86.46 | 90.08 | 81.86 |

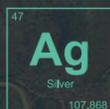
KEY TAKEAWAYS:



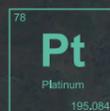
URANIUM prices are expected to rise overall, supported by growing nuclear energy demand in China, India, and the EU. However, a price dip in 2029 is projected by experts, suggesting a possible shift in the trend.



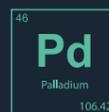
GOLD is forecast to gradually decline from its record 2025 levels as real interest rates stabilize, though geopolitical hedging continues to support long-term value.



SILVER, while facing volatility, is expected to hold nearly \$30 due to demand for solar panels and electronics.



PLATINUM prices are forecast to rise steadily, supported by strong industrial demand. Its role in clean technologies, especially hydrogen production and fuel cells, is becoming increasingly important, contributing to a long-term upward trend.



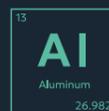
PALLADIUM shows a mixed outlook: moderate gains in the near term followed by gradual easing. This reflects a shift in demand as automakers diversify catalyst materials and EV production reduces reliance on traditional combustion inputs.



COPPER continues its role as a cornerstone of electrification and grid expansion. Its steady upward forecast reflects sustained demand from EVs, renewables, and AI/data infrastructure buildouts.



COBALT, integral to lithium-ion battery cathodes, shows the highest CAGR, despite recent oversupply pressures. Supply risks from the DRC remain a factor.



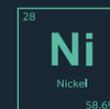
ALUMINUM, a lightweighting material for transport and renewables, trends modestly upward as decarbonization of production becomes a strategic focus.



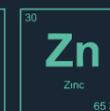
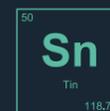
IRON ORE is expected to slightly decline, reflecting stabilizing Chinese steel demand and long-term recycling substitution.



LEAD prices are forecast to hold steady, remaining close to \$0.92 from 2025 through 2029. This indicates limited demand growth, with long-term risks from substitution by newer battery technologies and regulatory pressures against lead-based applications.



NICKEL displays a consistently upward pricing trend, indicative of its reinforced strategic position within modern supply chains. The forecast suggests that demand remains robust, driven by increasingly diversified end-use cases beyond older applications.



TIN and **ZINC** are forecast to remain relatively stable, with minor fluctuations. Demand from electronics (tin) and construction (zinc) continues to provide support, but no major structural shifts are expected.

¹⁰ Consensus price forecasts – Flight-to-safety, weak US dollar boost metals prices | S&P Global

2.3

RAISING CAPITAL FOR MINERALS & MINING INDUSTRY

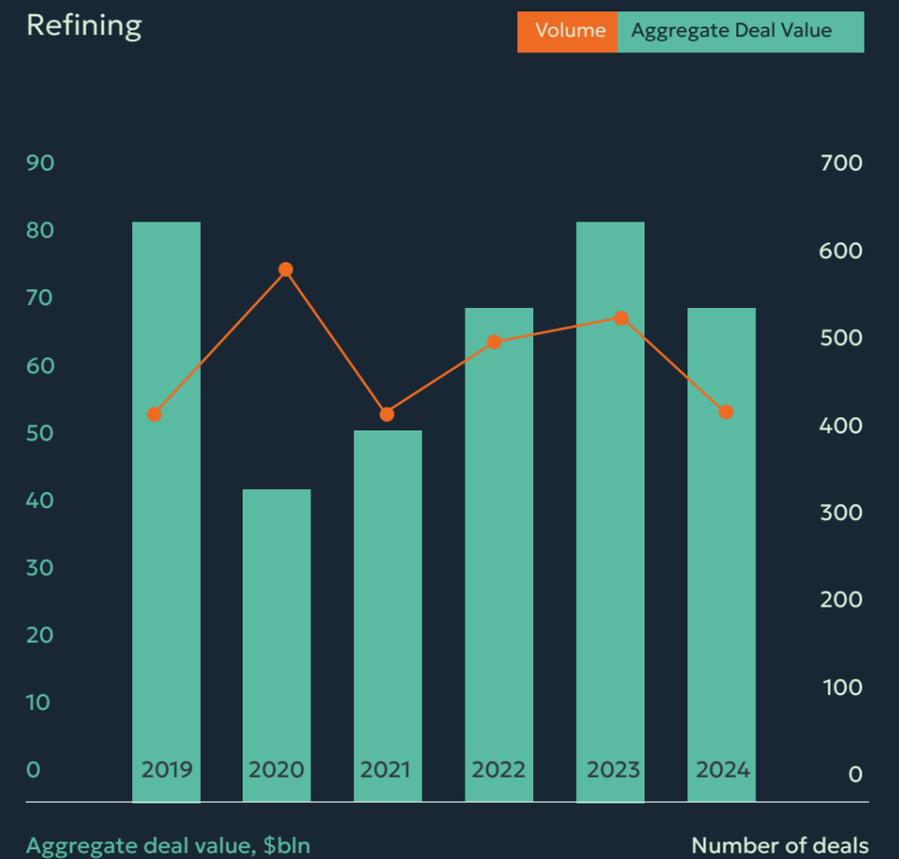
The mining industry is projected to require at least \$2.1 trillion¹¹ in investment by 2050 to meet the surging demand driven by the global energy transition and industrial growth. However, a tighter capital-raising landscape and rapidly evolving market dynamics will pose significant challenges - while also opening new avenues for companies aiming to transition from consolidation to growth.

¹¹ M&A and Capital Raising 2024 Trends and 2025 Outlook, EY | <https://www.ey.com/content/dam/ey-unified-site/ey-com/en-au/insights/mining-metals/documents/ey-crs-gbmc-11536345-ma-blog-v4.pdf>

Figure 3. Mining and metals deals, by value and volume, 2019 - 2024

Source: Refinitiv

Refining



Aggregate deal value, \$bln

Number of deals

PATHWAYS FOR CAPITAL RAISING IN THE MINING SECTOR

To secure the necessary funding, mining companies must explore a diverse mix of financing strategies, including:



Public Equity and Debt Markets:

Leveraging initial public offerings (IPOs), secondary listings, or corporate bonds to attract long-term institutional capital, particularly from ESG-focused investors.



Private Equity and Strategic Investors:

Partnering with private equity firms, sovereign wealth funds, or industrial players seeking exposure to critical minerals and resource security.



Joint Ventures and Strategic Alliances:

Sharing capital and operational risk through project-level partnerships with off-takers, refiners, or downstream manufacturers.

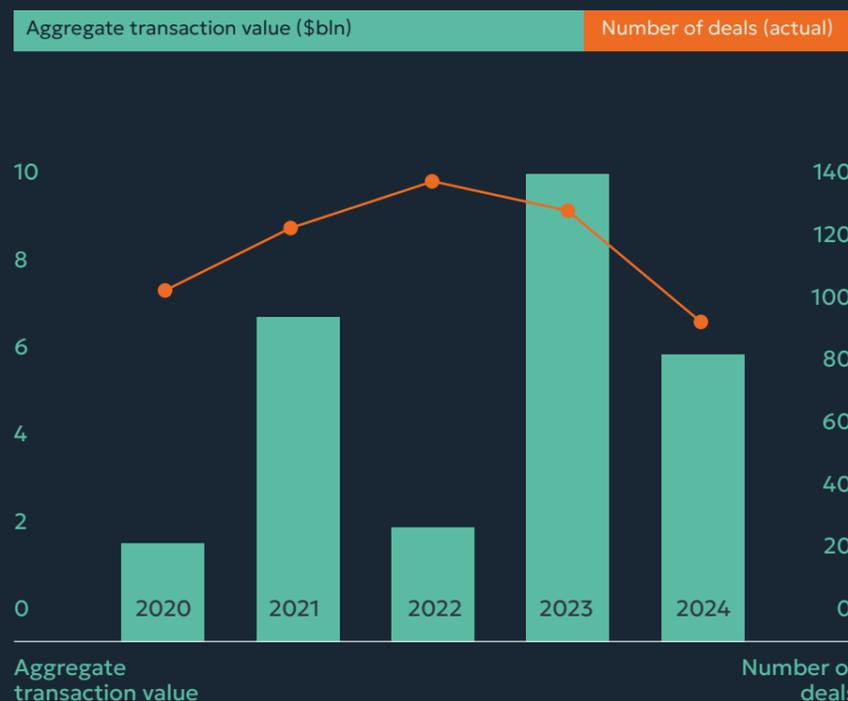


Government Support and Export Credit Agencies (ECAs):

Tapping into concessional financing, guarantees, or co-investments from national development banks and multilateral institutions.

Figure 4. Global PE/VC-backed investments in metals and mining by value and number of deals, 2019 - 2025

source: S&P Global Market Intelligence



Mining companies that proactively align their capital raising strategies with global sustainability standards, supply chain security priorities, and investor transparency expectations will be better positioned to access capital and scale operations over the coming decades.



Future Minerals Junior Mining Fund CEIC Ltd.

A next-generation private equity fund connecting global capital with high-potential junior mining projects across Kazakhstan and Central Asia.

Private Equity | Resource-backed | Shariah-Compliant | AIFC Regulated

Fund Summary

| | |
|--|--|
| Fund Size (Target) USD 100 million | Investment Horizon 3-5 years |
| Investment Stage Early-stage exploration & development | Geographic Focus Kazakhstan & Central Asia |
| Management Fee 2% per annum | Performance Fee 20% over 8% hurdle rate |
| Target Portfolio(Diversified) 10-12 projects | Minimum Investment USD 50,000 |
| Shariah Compliance Possible (Shariah Compliant Advisory Board) | Tax Benefits 0% tax on capital gains, dividends, interest income (AIFC regime) |

Fund Manager: GWM Capital Ltd.

License: AFSA-A-LA-2025-0015



Arman Batayev
CEO & Founder

Financial expert and auditor with ACCA certification

- Co-founder of HQB, QAMS
- Founding Partner at OD Consulting Ltd.
- Former (EY, KMG EP, AIFC)



Dr. Kanat Kudalbergen
Chairman of the Board

Former CEO of Tau-Ken Samruk and Karatau LLP

- 20+ years in mining, transport & energy, incl. senior roles at Kazatomprom
- Board roles: KazZinc, ShalkiaZinc, CECC, and Central Asia Engineers Association

Technical and Geological Partner



- Technical Due Diligence on Projects and Partners
- On-Site Operational Control
- Selecting Extraction Technologies

Exploration targets and mineral reserves with a solid geological foundation of Gold, Copper, Cobalt, Chromium, Nickel, Niobium, Tantalum, Lithium, Lead, Uranium, Zinc, REEs taking into account the economic feasibility of their development.

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3

KAZAKHSTAN'S METALS MINING SECTOR OVERVIEW

SECTION SUMMARY

Kazakhstan's metals mining sector contributes over 12% of GDP and one-third of export value, with leading positions in uranium, copper, aluminum, and zinc production. FDI in the sector has doubled over the past five years, defying national downward trends, and now accounts for 17% of total FDI inflows. Ongoing reforms aim to streamline permitting, expand geological surveys, and incentivize critical minerals exploration through priority development rights.

KEY INSIGHTS

- 1 Mining FDI is showing sustainable growth, despite the total national FDI inflows declining.
- 2 Granting priority rights to exploration investors can serve as an effective tool for attracting long-term commitments, especially as geological survey coverage expands from 1.5 to 2.2 million km² to unlock new resource potential. By reducing entry risks and signaling state support, such mechanisms enhance investor confidence and improve the overall competitiveness of the mining sector.

KEY NUMBERS

12.1%

share of GDP from metals mining (KZT 16.1 trillion in 2024)

~33%

of Kazakhstan's total export value from mining

\$3 billion

FDI in metals mining in 2024 – double the 2019 level

17%

share of national FDI is attributed to metals mining

65%

geologically unexplored area of Kazakhstan

3.1

KAZAKHSTAN'S METALS MINING: KEY INDICATORS & FDI TRENDS

KEY NUMBERS

| | | |
|------------------------------|--------------------------------|--|
| Share of GDP 12.1% | Share in exports 1/3 | FDI in metals mining \$3 billion |
|------------------------------|--------------------------------|--|

The mining sector (excluding oil and gas) accounted for 12.1% of Kazakhstan's national GDP in 2024, amounting to KZT 16.1 trillion¹². The sector contributes approximately one-third of the country's total export value.¹³

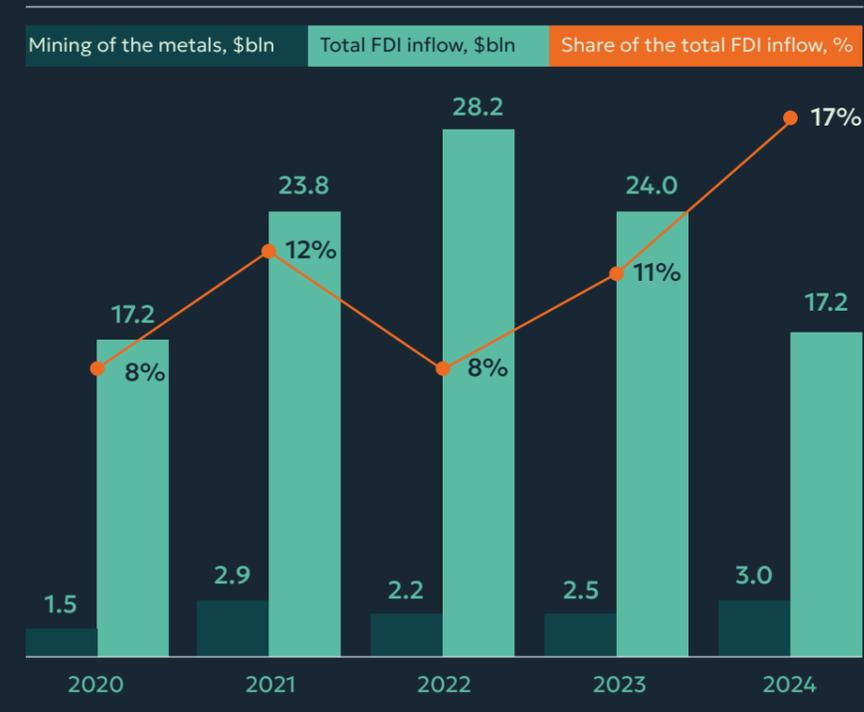
Kazakhstan is one of the world's leading producers and exporters of key minerals, including uranium and base metals such as copper, aluminum, and zinc. While the country has established some presence in critical mineral exports, there remains significant untapped

potential to expand existing volumes and introduce new metals to global markets.

According to the National Bank of Kazakhstan, gross FDI in Kazakhstan's metal mining industry has grown substantially over the past five years, increasing two times to approximately US\$3 billion by the end of 2024. Following a period of decline in prior years, investment inflows rebounded in 2024, signaling renewed investor interest in the sector.

Following the 2022 peak, total gross FDI inflows have normalized, while the metal mining sector continues to show sustained investor interest: in 2024 the sector reached a new high in inflows and increased its share to 17%. The higher share reflects both sector-specific activity and movements in the overall FDI base. This trend signals that mining remains one of the key areas for foreign investment in the country.

Figure 5. Gross FDI inflow to the mining of metals sector (2014-2024) Source: NBK



The country is prioritizing the exploration of critical minerals, including rare earth and rare metal deposits, while actively collaborating with international partners and investors.

The country is undertaking reforms to enhance the investment climate for the private sector, focusing on streamlining licensing and permitting procedures, expanding geological survey coverage from 1.5 to 2.2 million square kilometers¹⁴, and granting priority development rights to companies that invest in geological exploration.

¹² GDP by method of production (January-December 2024 (to preliminary data))

¹³ qaztrade.org.kz

¹⁴ Complex Plan on rare metals and REM for 2024-2028

3.2

MINERAL ENDOWMENT: RESERVE STANDARDS, EXPLORATION & CONTRACTS

Within Central Asia, Kazakhstan is particularly well-positioned to attract investment in the critical minerals sector, owing to its substantial reserves, improving regulatory framework, and government initiatives.

The country stands out for its favorable investment climate and increasing presence of international industry players. However, there are certain considerations that investors should take into account.



While international interest in critical minerals is rising, Kazakhstan's landscape is characterized by an abundance of greenfield opportunities, contrasted by a limited number of advanced brownfield projects ready for immediate production.



Attention should also be given to the recycling of mineral waste and secondary mineral formations, which, according to a report by the Ministry of Industry and Construction, amount to over 20 billion tonnes. These materials represent a significant resource with potential for critical mineral recovery (REM, RM).



Furthermore, basically all of Kazakhstan's mineral reserves are still reported under the Soviet-era GKZ system, which is very different from international standards like CRIRSCO (JORC, KazRC).



According to industry experts, only around 35% of Kazakhstan's territory has been geologically explored, with approximately 65% remaining unexamined.¹⁵

These factors - including outdated reserve classifications, large unexplored areas, and the need to process mineral waste - all require significant investment to develop Kazakhstan's full potential in critical minerals.

Kazakhstan possesses significant natural resource endowments, including key minerals essential for the global low-carbon transition. The country ranks 11th globally in copper reserves, 7th in zinc, 11th in bauxite (aluminium), and 8th in lead. In addition, Kazakhstan holds considerable untapped potential in critical minerals such as lithium, nickel, and rare earth elements.

¹⁵ Based on an expert interview conducted by the Astana International Financial Centre, 2025

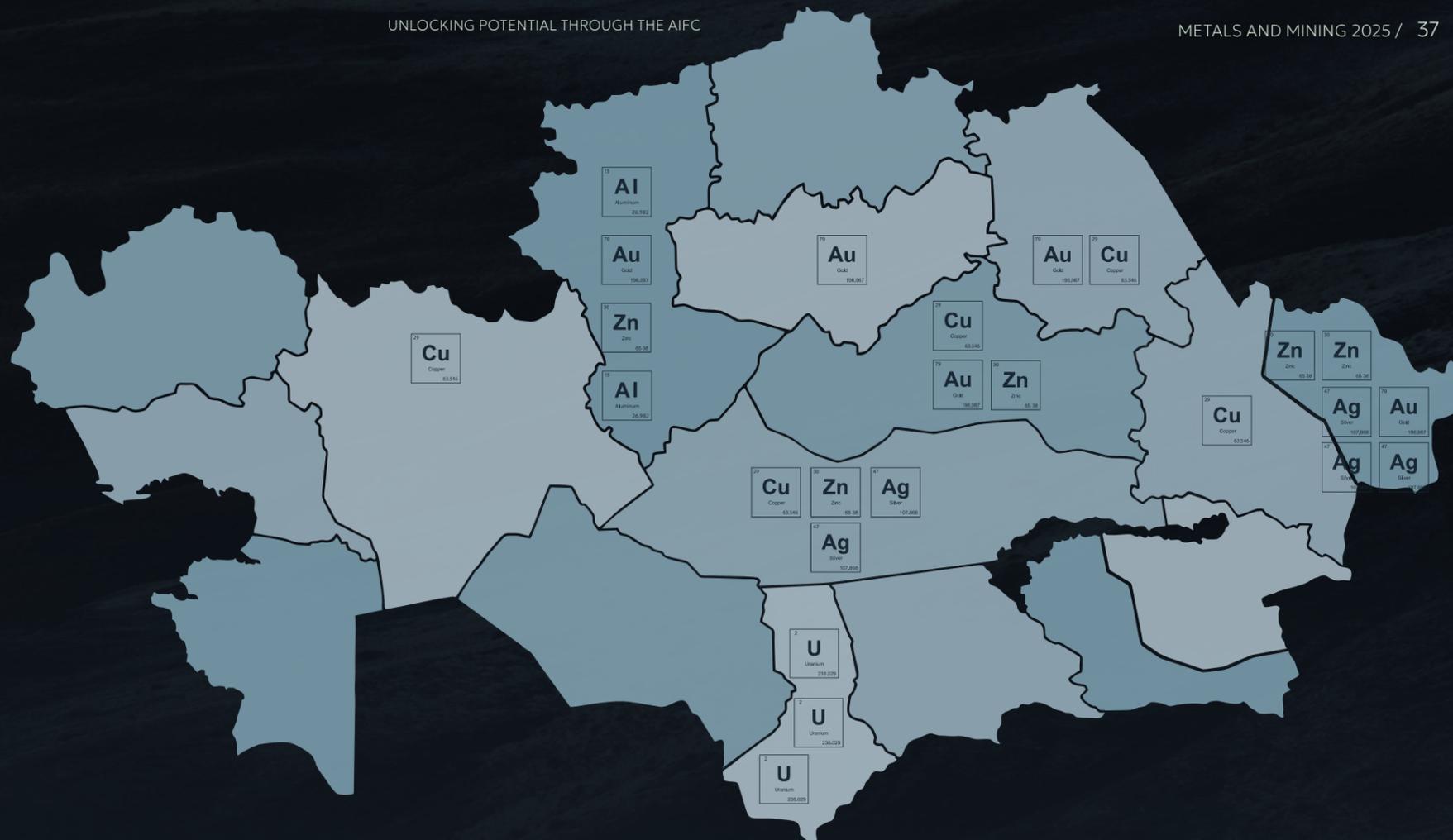


Figure 6.
Mineral reserves map - Kazakhstan's main mines:
copper, zinc, silver, bauxite, gold, uranium

Source: mining-technology.com

LARGEST GOLD-PRODUCING MINES

- 1. Altyntau Kokshetau**
(438 thousand ounces),
Glencore
- 2. Kyzyl Project**
(345 thousand ounces),
Solidcore Resources
- 3. Varvara Mine**
(204 thousand ounces),
Solidcore Resources
- 4. Bozshakol Mine**
(117 thousand ounces),
KAZ Minerals
- 5. Pustynnoe Mine**
(103 thousand ounces),
AK Altyntalmas

LARGEST COPPER-PRODUCING MINES

- 1. Aktogay Mine**
(230 thousand tonnes) —
KAZ Minerals
- 2. Zhezkazgan Mine**
(171 thousand tonnes) —
Kazakhmys
- 3. Bozshakol Mine**
(105 thousand tonnes) —
KAZ Minerals
- 4. 50 Let Oktyabrya Mine**
(38 thousand tonnes) —
Russian Copper Co.
- 5. Nurkazgan Mine**
(25 thousand tonnes) —
Kazakhmys

LARGEST ZINC-PRODUCING MINES

- 1. Zhairemsky Mine**
(81 thousand tonnes) —
Glencore
- 2. Akzhal Zinc Lead Mine**
(38 thousand tonnes) —
Chelyabinsk Zinc Plant
- 3. Maleevsky Mine**
(34 thousand tonnes) —
Glencore
- 4. Shaimerden Mine**
(27 thousand tonnes) —
Glencore
- 5. Orlovsky Mine**
(22 thousand tonnes) —
KAZ Minerals

LARGEST SILVER-PRODUCING MINES

- 1. Zhezkazgan Mine**
(8.4 million ounces)
Kazakhmys
- 2. Aktogay Project**
(1.2 million ounces)
KAZ Minerals
- 3. Zhairemsky Mine**
(1.1 million ounces)
Glencore
- 4. Maleevsky Mine**
(0.9 million ounces)
Glencore
- 5. Artemyevsky Mine**
(0.9 million ounces)
KAZ Minerals

MAJOR OPERATING BAUXITE MINES

- 1. Krasno Oktyabrskoye**
- 2. Turgai Bauxite**

LARGEST-PRODUCING URANIUM MINES

- 1. Inkai, sites 1-3**
(3201 tonnes U)
- 2. Karatau (Budenovskoye 2)**
(2560 tonnes U)
- 3. South Inkai 4**
(1600 tonnes U)

CURRENT LANDSCAPE OF REM AND REE DEPOSITS IN KAZAKHSTAN

According to the Kazakhstan's Complex Plan on rare metals and REM for 2024-2028¹⁶, approximately 124 rare metal and REE deposits have been identified across Kazakhstan. The following deposits represent the most commercially attractive opportunities for further exploration and development:



VANADIUM:
Kurumsak,
Bala-Sauskandyk



TANTALUM AND NIOBIUM:
Verkhniy-Irgiz,
Kvartsevoye, Kalai-
Tapkan, Verkhne-
Baymurzinskoye



MOLYBDENUM AND TUNGSTEN:
Koktenkool,
Drozhilovskoye,
Verkhneye Kayrakty,
Smirnovskoye,
Yuzhnyy Zhaur, Zhanet,
Batystau, Akshatau,
Karaoba, Bainazar



TITANIUM AND ZIRCONIUM:
Karaotkel,
Obukhovskaya,
Shokash,
Shpakovka, Kumkol,
Sabyndykol,
Prognoznoye,
Gorkovskoye,
Berezovskoye,
Zayachya, Druzhba,
Akespe



LITHIUM:
Yubileynoye,
Verkhne-
Baymurzinskoye,
Bakennoye,
Belogorskoye,
Akhmetkino,
Medvedka



BERYLLIUM:
Nurataldy, Karadzhai,
Darat

REE: Akbulak,
Kundybay,
Verkhneye-Espe,
Moyynkum, Akdala,
Talayryk, Melovoye,
Tomak, Taibogar,
Tasmurun

Furthermore, potential for by-product recovery of REEs exists within selected molybdenum and tungsten, phosphorite, vanadium, titanium and zirconium, as well as coal deposits.

¹⁶ Complex Plan on rare metals and REM for 2024-2028

Figure 7.
REM
Reserves of Kazakhstan

Source: mining-technology.com

WEST KAZAKHSTAN

Kyzylsai
Borsyksai
Melovoye
Shilisai
Shpakovka
Tomak
Taibogar
Tasmuryn

NORTH KAZAKHSTAN

Krasnomayskoye Gorkovskoye
Losevskoye Bogoduhovskoye
Kundybay Tobolskoye
Obukhovskoye Koskol
Karaagash Tleumbet
Akbulak Talairyk

EAST KAZAKHSTAN

Upper Espe
Arshaly
Yubileynoye
Karaotkel



70% OF REM
RESERVES ARE
IN MANGYSTAU
REGION

SOUTH KAZAKHSTAN

Balasauskandyk Mynkudyk
Koksay North Karamuryn
Kurumsak Kanzhugan
Zhabagly Moiynkum
Karatau Akespe
Akdala

CENTRAL KAZAKHSTAN

Kuyrektykol
Karatas 4
Shubarkol
Zhilanshik

Figure 8.
Active Contracts on Critical Minerals and REM, REE

Source: mining-technology.com



CONTRACTING ACTIVITY IN KAZAKHSTAN'S SOLID MINERALS MINING SECTOR

According to the Ministry of Industry and Construction, there are currently 337 active contracts for solid minerals (excluding coal).¹⁷

At present, there are over 30 active contracts covering 10 critical minerals - including nickel, cobalt, zinc, vanadium, tin, tungsten, among others. Additionally, there are 7 active contracts specifically targeting REM and REE, primarily located across the Kostanay, Karaganda, Mangystau, and Zhambyl regions.

A breakdown of key minerals by region, number, and contract types is provided in Figure 9. The geographic distribution of active contracts for critical minerals, REM, and REE is illustrated in Figure 8.

¹⁷ Ministry of Industry and Construction of the Republic of Kazakhstan

Figure 9.
Register of Active Solid
Mineral Contracts

| MINERAL | PRIMARY INDUSTRIAL APPLICATION | REGION (NUMBER OF DEPOSITS) | | CONTRACT TYPE (NUMBER OF CONTRACTS) | DEPOSITS NUMBER | SUBSOIL USERS NUMBER | LIST OF CRITICAL MINERALS FOR THE USA | LIST OF CRITICAL RAW MATERIALS FOR THE EU |
|----------------------|---|---|--|---|-----------------|----------------------|---------------------------------------|---|
| Barite | Hydrocarbon production | Ulytau (3), Zhambyl (2), Karaganda (1), Turkestan (1) | | Extraction (7) | 7 | 6 | + | |
| Bauxite | Aluminium production | Kostanay (5) | | Extraction (2), Exploration & Extraction (3) | 5 | 1 | + (Aluminum) | + |
| Cobalt | Used in rechargeable batteries and superalloys | Pavlodar (1) | | Extraction & Exploration (1) | 1 | 1 | + | + |
| Copper, zinc | Electrical and electronics, construction, transportation; in metallurgy to produce galvanized steel | Aktobe (3) | | Extraction (3) | 3 | 3 | + (Zinc) | |
| Manganese | Steelmaking and batteries | Karaganda (4), Ulytau (2) | | Extraction (2), Exploration (1), Extraction & Exploration (3) | 6 | 5 | + | + |
| Nickel | Stainless steel, superalloys, and rechargeable batteries production | Abay (1) | | Exploration (1) | 1 | 1 | + | + |
| Nickel, cobalt | Stainless steel, superalloys, and rechargeable batteries production | Abay (1), Aktobe (2) | | Extraction & Exploration (1), Extraction (2) | 3 | 2 | + | + |
| REE | Permanent magnets, catalysts, battery alloys | Kostanay (3), Karaganda (1), Mangystau (1) | | Extraction (1), Exploration (3), Extraction & Exploration (1) | 5 | 5 | + | + |
| REM | Permanent magnets, catalysts, battery alloys | Zhambyl (2) | | Exploration (2) | 2 | 2 | + | + |
| Tin | Used as protective coatings and alloys for steel | Almaty (1) | | Exploration (1) | 1 | 1 | + | |
| Tungsten | Wear-resistant metals production | Karaganda (2), Almaty (1) | | Extraction (3) | 3 | 3 | + | + |
| Tungsten, molybdenum | Wear-resistant metals production | Karaganda (2) | | Exploration (2) | 2 | 2 | + | + |
| Vanadium | Alloying agent for iron and steel | Kyzylorda (1), Turkestan (1) | | Extraction (1), Exploration (1) | 2 | 2 | + | + |

¹⁸ Ministry of Industry and Construction of the Republic of Kazakhstan

| | | | | | | | | |
|---|--|---|--|--|-----|-----|--|--|
| Copper | Electrical and electronics, construction, transportation | Karaganda (14), Abay (12), Ulytau (5), Pavlodar (4), East-Kazakhstan (3), Zhambyl (3), Kostanay (2), Aktobe (2), Almaty (1), Mangystau (1), Turkestan (1), | | Extraction (15), Exploration (23), Extraction & Exploration (10) | 49 | 37 | | |
| Copper, gold, and accompanying elements | Mixed | Karaganda (5), Kyzylorda (1), Kostanay (1), Ulytau (1) | | Extraction (7), Extraction & Exploration | 8 | 8 | | |
| Ferrous, non-ferrous, rare earth metals, fluorite | Mixed | Zhambyl (2) | | Exploration (2) | 2 | 2 | | |
| Gold | Jewelry, investments, Central banks reserves | Abay (20), Akmola (18), Zhambyl (18), Karaganda (15), East-Kazakhstan (11), Kostanay (8), Ulytau (6), Almaty (6), Pavlodar (5), Turkestan (5), North-Kazakhstan (3), Aktobe (3) | | Extraction (30), Exploration (58), Extraction & Exploration (30) | 118 | 100 | | |
| Gold, copper, polymetals | Mixed | North-Kazakhstan (1), Akmola (1), Turkestan (1) | | Exploration (3) | 3 | 2 | | |
| Gold-bearing ores | Gold extraction | Kostanay (4), Karaganda (3), Abay (2), Akmola (1), East-Kazakhstan (1), Pavlodar (1), Ulytau (1) | | Exploration (13) | 13 | 11 | | |
| Iron - manganese ore | Steel production | Akmola (1), Karaganda (1) | | Exploration (2) | 2 | 2 | | |
| Iron ore | Steel production | Kostanay (7), Karaganda (3), Ulytau (3), Akmola (2), Aktobe (2), East-Kazakhstan (2), Zhambyl (1), Mangystau (1) | | Extraction (8), Exploration (8), Extraction & Exploration (5) | 21 | 16 | | |
| Molybdenum | Steel and alloy production | Kostanay, Akmola | | Extraction & Exploration (2), Extraction | 2 | 2 | | |
| Molybdenum, tungsten, copper/molybdenum-copper | Mixed | Kostanay, Karaganda | | Extraction & Exploration (1), Exploration (1) | 2 | 2 | | |
| Non-ferrous metals/precious metals | Mixed | Karaganda (2), Kostanay (1), Ulytau (1), Pavlodar (1) | | Exploration (5) | 5 | 5 | | |
| Phosphorite | Fertilizer production, industrial chemicals | Zhambyl (1), Aktobe (1) | | Extraction (2) | 7 | 2 | | |
| Polymetals | Mixed | East-Kazakhstan (19), Abay (8), Karaganda (5), Ulytau (4), Kyzylorda (2), North-Kazakhstan (1), Aktobe (1), Kostanay (1) | | Extraction (14), Exploration (19), Extraction & Exploration (3) | 38 | 26 | | |
| Silver | Electronics, solar panels, batteries | Almaty (1) | | Extraction & Exploration (1) | 1 | 1 | | |

COOPERATION ON EXPLORATION AND DEVELOPMENT OF MINES IN KAZAKHSTAN

International Partnerships



In 2022, Kazakhstan and the US signed a Critical Minerals Agreement to encourage US investment in exploration, mining technologies, and processing capabilities in Kazakhstan.



Kazakhstan is a participant in the Minerals Security Partnership - a global initiative of 14 countries and the EU promoting responsible investment in critical mineral supply chains.



In November 2022, Kazakhstan and the EU signed an MoU on strategic cooperation in raw materials, batteries, and renewable hydrogen¹⁹.

¹⁹ https://www.mining-technology.com/analysis/unlocking-investment-in-critical-minerals-in-kazakhstan/?utm_source=chatgpt.com

Key Project Developments

Kazakhstan is advancing cooperation in critical minerals and REM with companies from Germany, the United States, the United Kingdom, China, Singapore, and other markets. The focus spans exploration, mining, refining, and export.

Kaz Critical Minerals

In 2023, Kaz Critical Minerals became the first US company to receive licenses for critical minerals and REE exploration in Kazakhstan. Its parent company, Cove Capital, has formed local partnerships, including a JV with Kazgeology to develop the Akbulak Rare Earth Project (estimated 380,000 tonnes of rare earth oxides).

The presence of leading international mining and energy companies in Kazakhstan - such as Ivanhoe Mines, Condor Energies, and Kaz Critical Minerals - not only highlights the country's resource potential but also enhances its credibility as a stable and attractive destination for mining investment.

²⁰ Ivanhoe Mines launches exploration in Kazakhstan's Chu-Sarysu copper basin

²¹ Condor Energies secures second critical minerals mining licence in Kazakhstan

Ivanhoe Mines

Canadian miner Ivanhoe Mines launched exploration in the Chu-Sarysu copper basin, with an initial CAD 18.8 million (\$13 million) investment over two years. The basin, recognised as the world's third-largest sedimentary copper basin, holds an estimated 25 million tonnes of undiscovered copper, along with lead, zinc, silver, barium, and strontium.²⁰

Condor Energies

Canadian energy transition company Condor Energies secured a second critical minerals exploration licence (six-year term) in Kolkuduk. Earlier hydrocarbon drilling identified brine deposits with lithium concentrations up to 130 mg/L, indicating strong exploration potential.²¹

Backed by strategic agreements with the US and EU, and active participation in global initiatives like the Minerals Security Partnership, Kazakhstan is sending a strong signal to both major and junior players in the mining industry: this is a region poised for growth, cooperation, and long-term opportunity in critical minerals and rare earth elements.

3.3

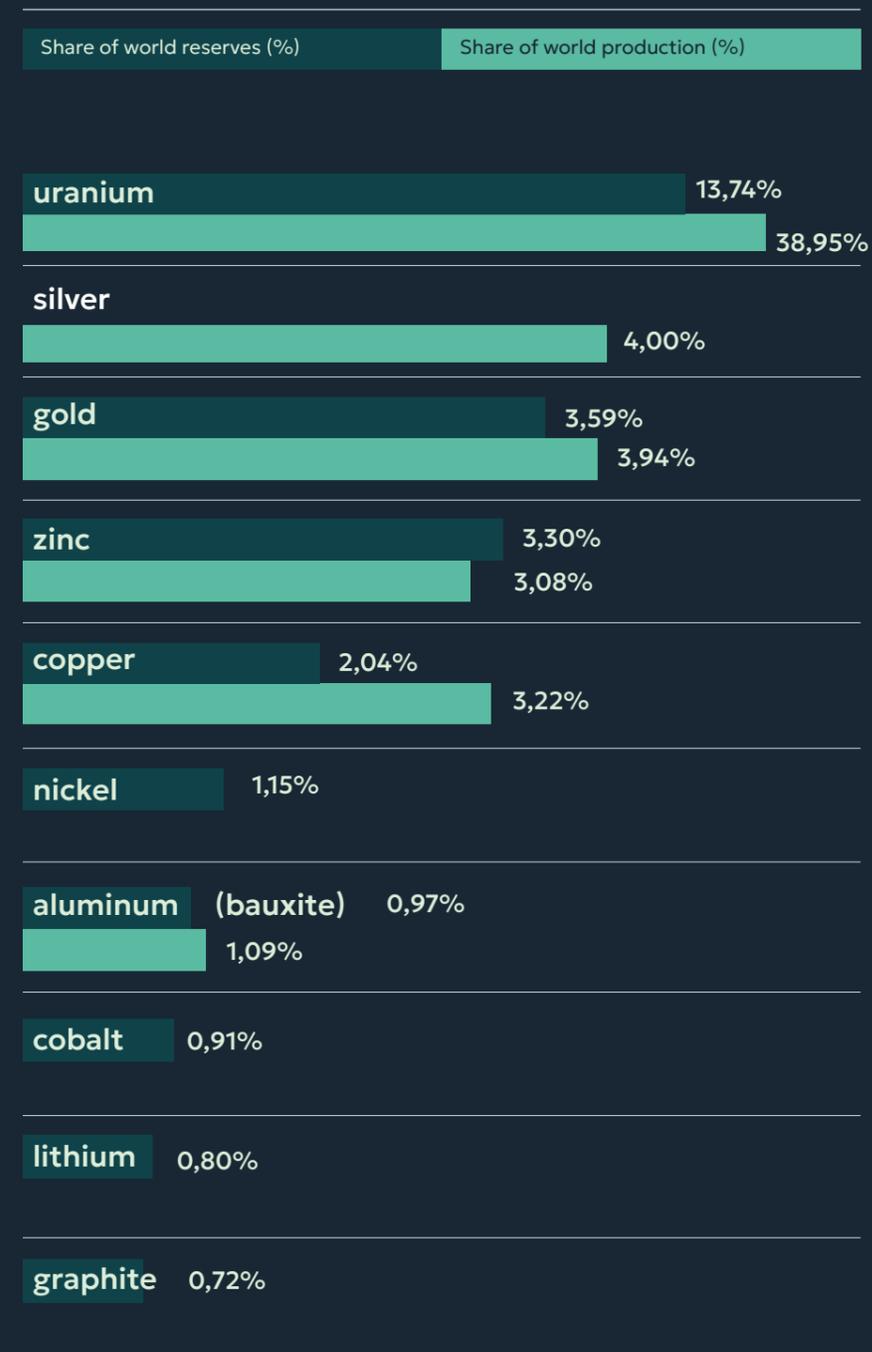
MINERAL PROFILES: RESERVES, PRODUCTION & TRADE (2020–2024)



Figure 10.

Share of Kazakhstan in mineral reserves and production in 2024

Source: Mineral Commodity Summaries ²²



²² Mineral Commodity Summaries 2025

URANIUM

Reserves

Kazakhstan also possesses one of the largest uranium resource bases worldwide estimated at roughly **12-15% of the world's uranium resources** (the second largest after Australia).²³

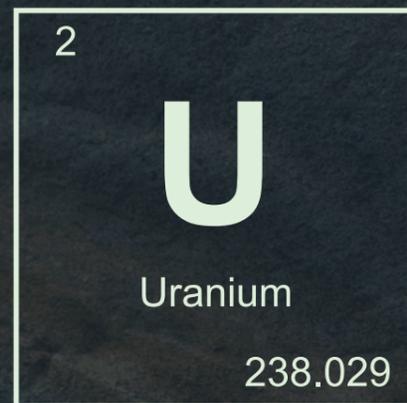
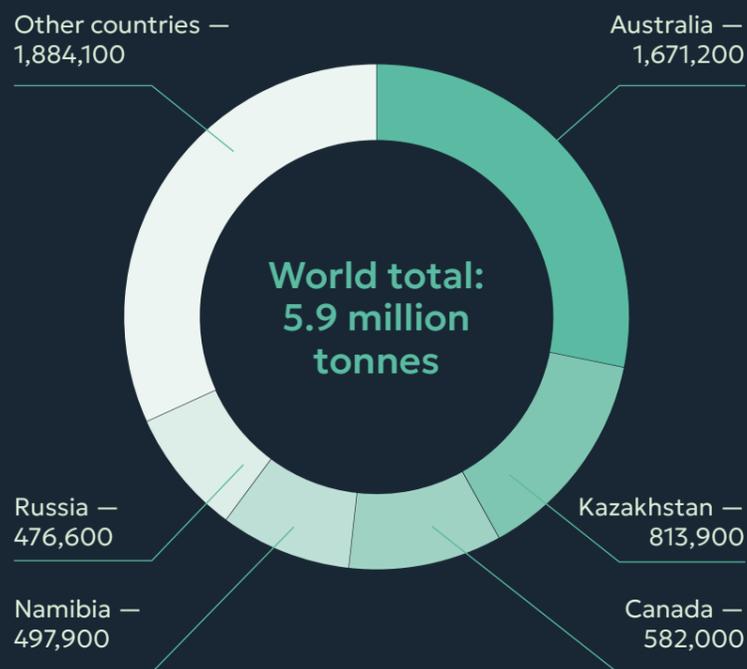


Figure 11.

Global reserves of uranium, tonnes



According to international estimates, Kazakhstan accounts for about 14% of the world's recoverable uranium resources; the country has a substantial resource base with low production costs

²³ Uranium and Nuclear Power in Kazakhstan - World Nuclear Association

Production

Kazakhstan is the world's largest uranium producer, accounting for approximately 40% of global output. The country's annual uranium production has increased by 20% since 2020, reaching 23.3 thousand tonnes in 2024.

Kazatomprom, Kazakhstan's leading uranium producer, operates several major mines, including Inkai (sites 1-3), Karatau (Budenovskoye 2), Central Mynkuduk, and South Inkai 4.²⁴

²⁴ World Uranium Mining Production - World Nuclear Association

Figure 12.

Kazakhstan's uranium mine production and share globally (2020-2024)

Source: World Nuclear Association



Exports

Kazakhstan exports the majority of its uranium as concentrate under long-term contracts to conversion and enrichment facilities worldwide. Kazakhstan holds a leading position in the global uranium market, accounting for over 40% of global production and more than 20% of global exports. Export volumes have remained stable since 2020. In 2024, Kazakhstan exported approximately 28 thousand tonnes* of uranium, generating \$4.6 billion in revenue. The bulk of these exports around 80% - were directed to Russia and China.

Note: *Publicly available data do not specify the cause of the discrepancy between production and export volumes. The variance may be attributable to the drawdown of previously accumulated inventories.

Top global exporters of uranium also include Canada (14%), Russia (14%), and France (13%).²⁵

²⁵ The Atlas of Economic Complexity

Figure 13. Kazakhstan's uranium exports, (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 2844

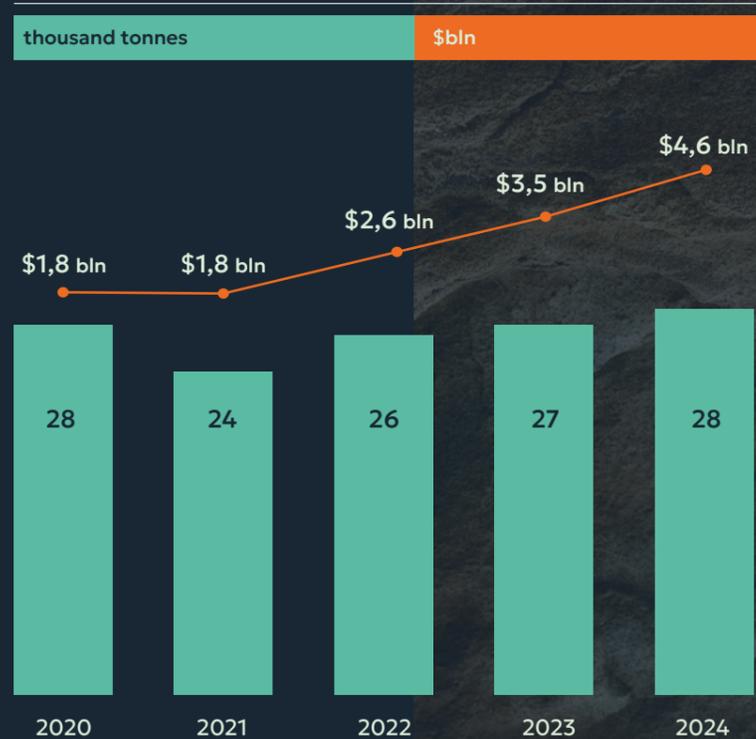


Figure 14. Kazakhstan's uranium importers, 2024

| | |
|--------|-----|
| Others | 1,0 |
| Russia | 1,8 |
| China | 1,8 |



Imports

Kazakhstan is a net exporter of uranium. In 2024, the country imported over 300 tonnes of uranium, valued at \$549.8 million. Most of these imports originated from Russia and China.

Figure 15. Kazakhstan's uranium imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 2844

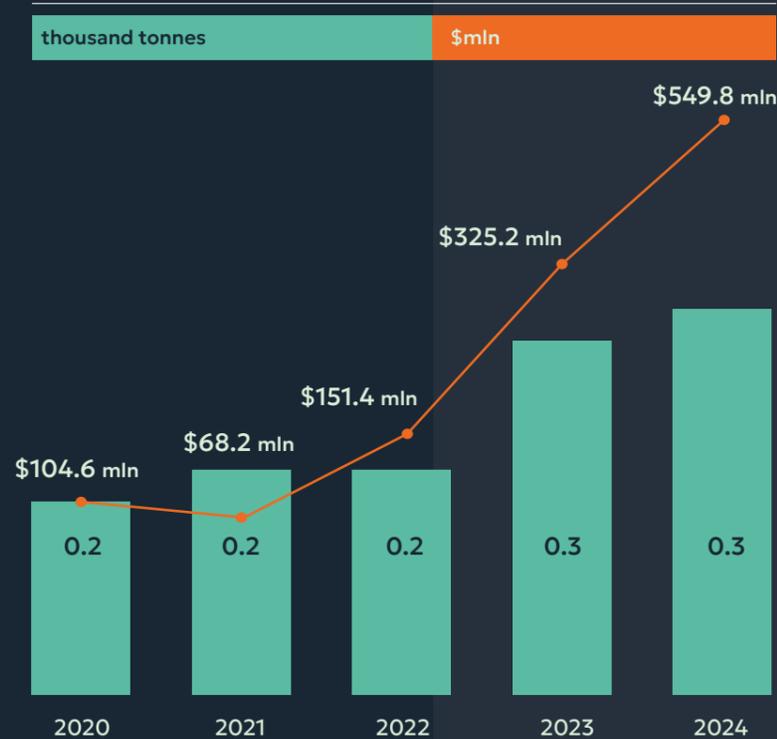


Figure 16. Kazakhstan's top uranium importers, 2024

| | |
|--------|-------|
| Russia | 478.1 |
| China | 64.2 |
| Others | 7.5 |

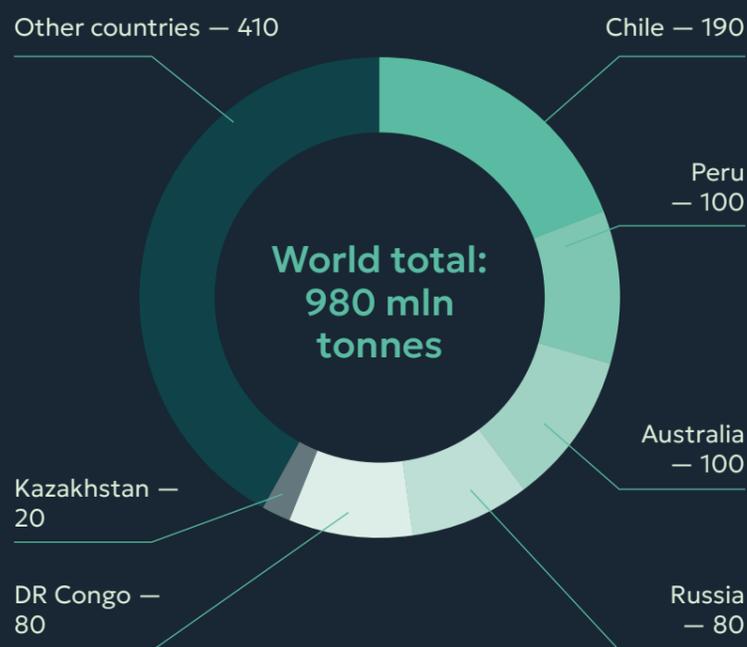


COPPER

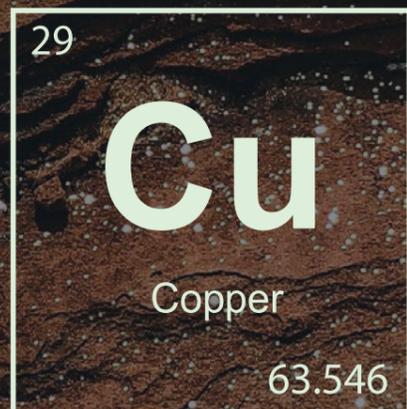
Reserves

Copper has a low product complexity index, but a large total addressable market. Copper is averagely resilient to oil shocks and moderately sensitive to physical distance of export destination. As of 2023 Kazakhstan holds the 11th place in the world copper reserves with 20 million tonnes.²⁶

Figure 17. Global reserves of copper, mln tonnes



²⁶ mcs2025.pdf - Mineral Commodity Summaries 2025



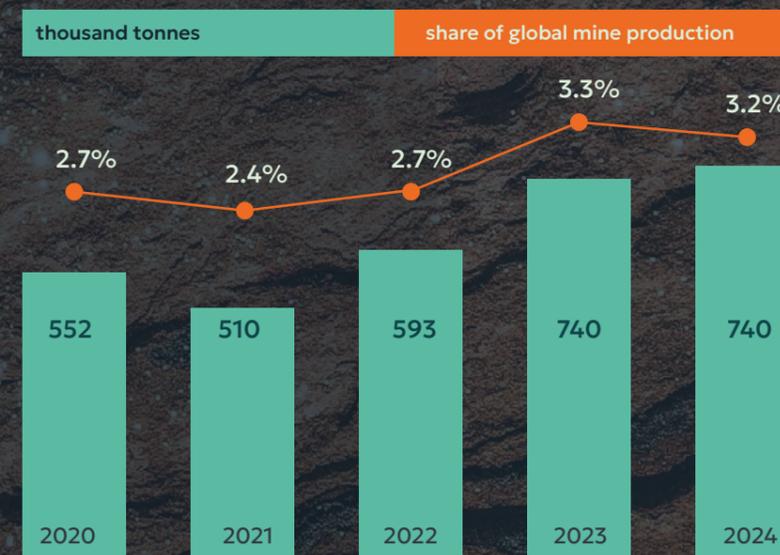
Production

Kazakhstan's share in the global market of copper is 3.2%, making the country the top 10 global copper producer. Copper is averagely resilient to oil shocks and moderately sensitive to physical distance of export destination.

Copper mine production in Kazakhstan has increased by over 30% since 2020, reaching approximately 740 thousand tonnes contained copper in concentrate in 2024 and accounting for around 3.2% of global copper mine output.

Figure 18. Kazakhstan's copper mine production and share globally

Source: U.S. Geological Survey, Mineral Commodity Summaries



Kazakhstan possesses significant copper deposits primarily located in the central and eastern parts of the country. Key mining regions include East Kazakhstan, Pavlodar, and the Ulytau region. The country's copper reserves are primarily found in porphyry deposits, often co-located with gold and molybdenum, making them economically attractive.

Kazakhstan is a major global copper producer, with two principal companies dominating the sector: **Kazakhmys** and **KAZ Minerals**. These vertically integrated firms control both extraction and smelting operations and account for more than 80% of national production. In recent years, Kazakhstan has consistently produced between 600,000 and 850,000 metric tonnes of copper annually.

THE LARGEST OPERATING COPPER PROJECTS INCLUDE:

- Bozshakol** (Pavlodar region), a large-scale open pit mine
- Aktogay** (East Kazakhstan), a sulphide and oxide copper mine
- Zhezkazgan and Balkhash** clusters, operated by Kazakhmys

Newer projects such as Koksay and Aidarly are under development to maintain production and expand capacity.

Zhezkazgan, Nurkazgan, Aktogay, 50 Let Oktyabrya, and Bozshakol. (Figure X).

Smelting signed an agreement with China Nonferrous Metal Mining to construct a new copper smelter with an annual production capacity of 300 thousand tonnes, with commissioning planned by the end of 2028.²⁷

Kazakhmys and KAZ Minerals operate the largest copper mines in Kazakhstan, including

Copper mine production in Kazakhstan is expected to increase further as new production facilities are planned. In 2024, KAZ Minerals

²⁷ Kazakhstan signs agreement for \$1.5bn copper smelter project

Exports

Kazakhstan's exports majority of its copper output, primarily in the form of copper cathode and concentrate. The main export markets include China, the European Union, and Turkey. Copper ranks among Kazakhstan's top non-fuel exports and is critical to its trade diversification agenda.

Over the past five years, Kazakhstan's copper mine exports have experienced fluctuations, averaging over 400 thousand tonnes annually. In 2024, copper exports reached 479 thousand

tonnes refined copper cathode and concentrate (combined), generating \$4.1 billion in export revenue - a 50% increase compared to 2020. China, a global leading copper importer, remains the primary export destination, accounting for \$2.7 billion in copper imports from Kazakhstan, followed by Turkey with \$1.4 billion.

Kazakhstan is among the top five global copper exporters, with a 4% share of global copper exports in 2023.²⁸

²⁸ The Atlas of Economic Complexity

Figure 19. Kazakhstan's copper mine exports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7403

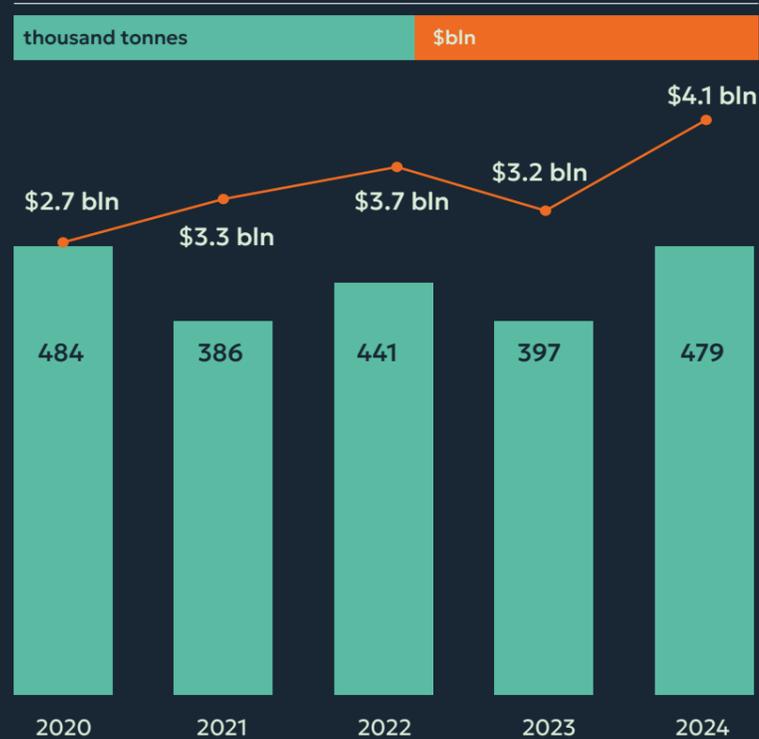


Figure 20. Kazakhstan's top copper importers, 2024

| | |
|---------|-----|
| China | 2,7 |
| Türkiye | 1,4 |
| Others | 0,1 |



Imports

Kazakhstan is a net exporter of copper, with minimal annual import volumes. In 2024, copper imports totaled 465 tonnes, valued at approximately \$3.8 million. The full volume of these imports originated from Russia.

Figure 21. Kazakhstan's copper mine imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7403



Figure 22. Top exporters of copper to Kazakhstan, 2024

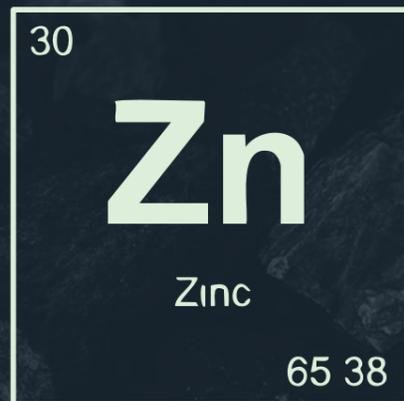
| | |
|--------|-----|
| Russia | 3.7 |
| Others | 0.1 |



ZINC

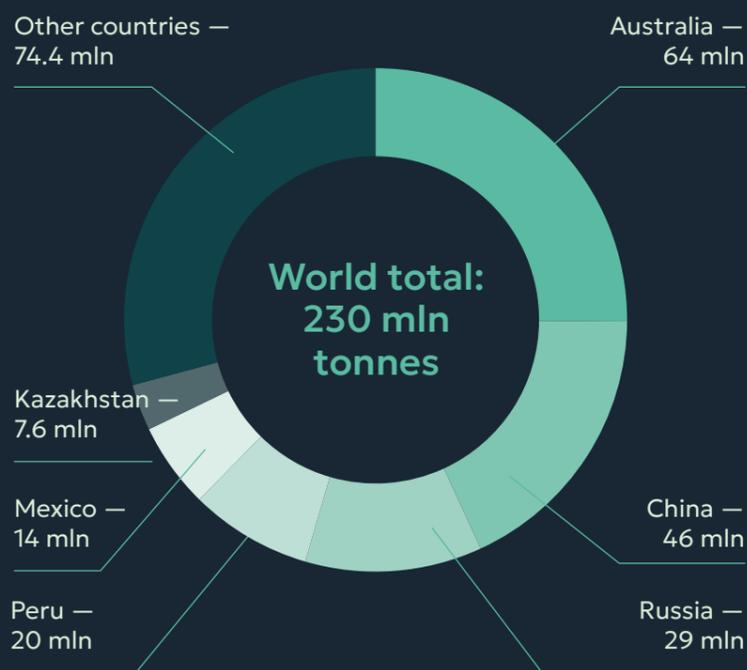
Reserves

Kazakhstan ranked **9th globally in zinc reserves** in 2024, with an estimated **7.6 million tonnes** of zinc in identified reserves. Kazakhstan's zinc reserves were estimated at 7.6 million metric tons as of 2024.²⁹ This positions the country 9th globally in zinc reserves.



Key players in the country's zinc production include **Glencore** and **KAZ Minerals**.³⁰

Figure 23.
Global reserves of zinc, 2024



Production

Zinc mine production in Kazakhstan has grown significantly over the past five years, increasing by more than 60% — from 222 thousand tonnes in 2020 to approximately 370 thousand tonnes contained zinc in concentrate in 2024. Since 2022, annual production has consistently exceeded 300 thousand tonnes. This expansion has boosted Kazakhstan's share of global zinc production to 3.1% as of last year.

The largest zinc deposits are located in the Ulytau, Karaganda, and East Kazakhstan regions. Production is driven predominantly by Kazzinc (a Glencore subsidiary), which operates large polymetallic mining and metallurgical complexes in East Kazakhstan.

Figure 24.
Kazakhstan's zinc mine production and share globally (2020-2024)



Source: U.S. Geological Survey, Mineral Commodity Summaries

²³ USGS – Mineral Commodity Summaries 2025
³⁰ Zinc in Kazakhstan

Exports

Zinc is one of Kazakhstan's top non-ferrous exports. Kazakhstan has an exportable surplus of both zinc and lead, after domestic needs (e.g. for galvanized steel, batteries, etc.) are met. Approximately 70% of Kazakhstan's zinc output is exported, primarily to regional markets.

Kazakhstan's zinc exports have followed a downward trajectory in recent years, declining by 15% since 2020 and totaling 247 thousand

tonnes refined zinc metal in 2024. Export revenues reached \$651 million. Key export destinations included China (50%), Russia (35%), Vietnam (9%), and Türkiye (5%), reflecting a continued concentration in regional markets.

Kazakhstan's share in global zinc exports was around 6% in 2023³¹, making it one of the top seven zinc exporters in the world.

³¹ The Atlas of Economic Complexity

Figure 25. Kazakhstan's zinc mine exports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7901

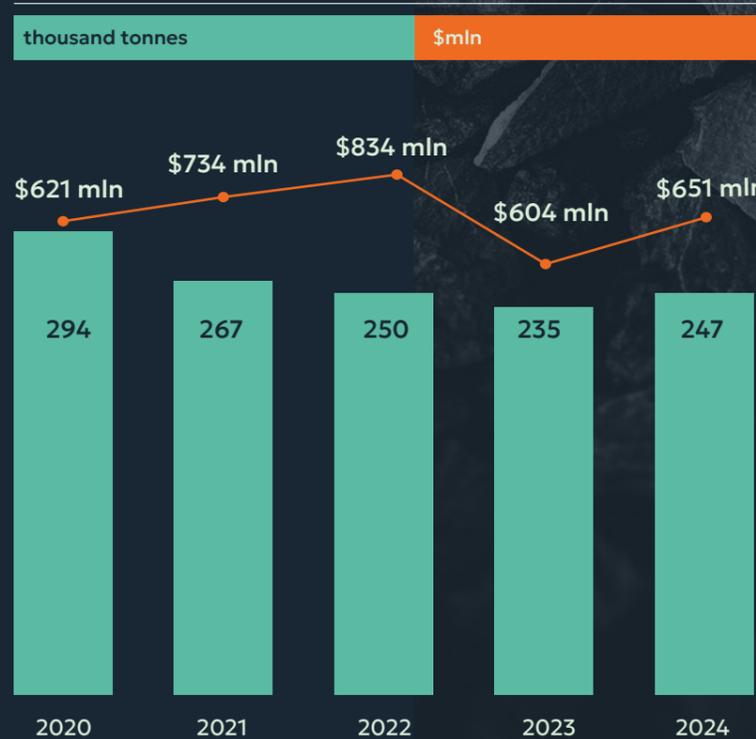


Figure 26. Kazakhstan's top zinc importers, 2024

| | |
|---------|-----|
| China | 327 |
| Russia | 227 |
| Vietnam | 60 |
| Türkiye | 33 |



Imports

Kazakhstan is a net exporter of zinc, with limited annual import volumes. In 2024, the country imported 255 tonnes of zinc, valued at approximately \$0.8 million. Of these imports, 90% originated from Russia and the remaining 10% from China.

Figure 27. Kazakhstan's zinc mine imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7901

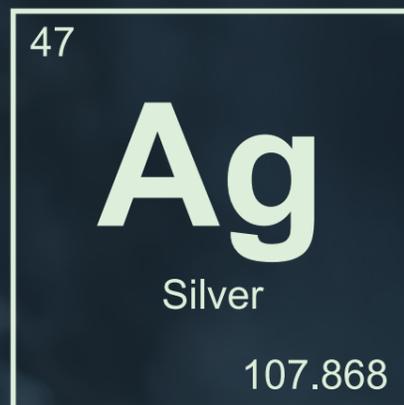


Figure 28. Zinc exporting countries to Kazakhstan, 2024

| | |
|--------|-----|
| Russia | 0.7 |
| China | 0.1 |



SILVER



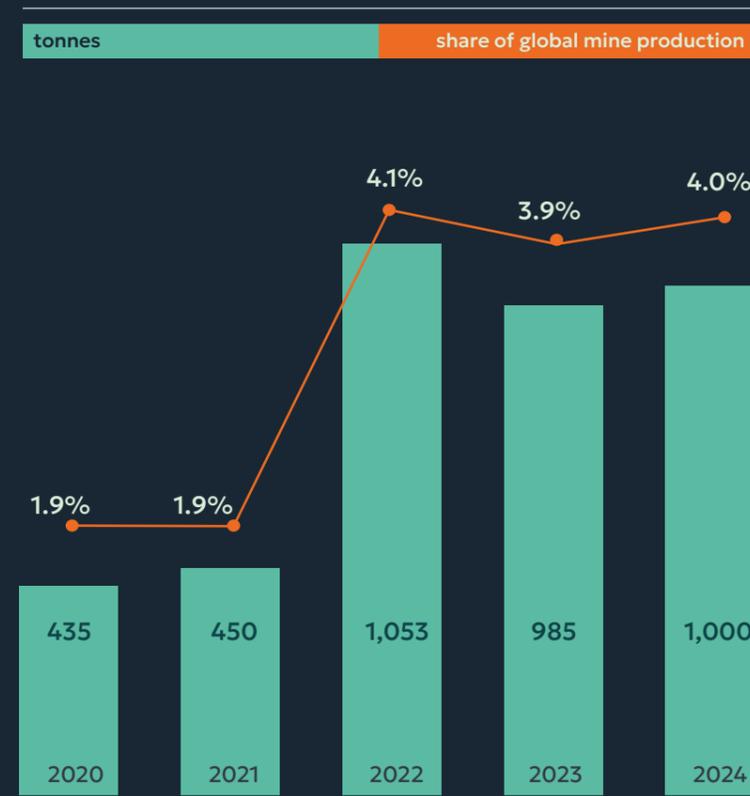
Production

Over the observed period, silver mine production in Kazakhstan more than doubled, rising from 435 tonnes in 2020 to approximately 1,000 tonnes in 2024. The country's share of global production also increased, reaching 4% in 2024.

Biggest mine deposits are located in two regions of the country – Ulytau and East Kazakhstan. Kazakhmys, KAZ Minerals, and Glencore operate the largest silver mines in Kazakhstan, including Zhezkazgan, Aktogay, Zhairemsky, Maleevsky, and Artemyevsky.³²

Figure 29.
Kazakhstan's silver mine production and share globally (2020–2024)

Source: U.S. Geological Survey, Mineral Commodity Summaries



³² The five largest silver mines in Kazakhstan

Exports

In recent years, Kazakhstan's silver exports have experienced a downward trend in volume, with a decline of approximately 30% since 2020. In 2024, the country exported 707 tonnes of silver, generating \$623 million in export revenue. The United States and the United Kingdom jointly accounted for over 70% of total silver exports, followed by Switzerland (10%), the United Arab Emirates (9%), and India (7%), highlighting a strong reliance on Western markets.

Kazakhstan's share in global silver exports remained modest at 2.6% in 2023, ranking 14th among global exporters.³³

³³ The Atlas of Economic Complexity

Figure 30. Kazakhstan's silver exports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7106

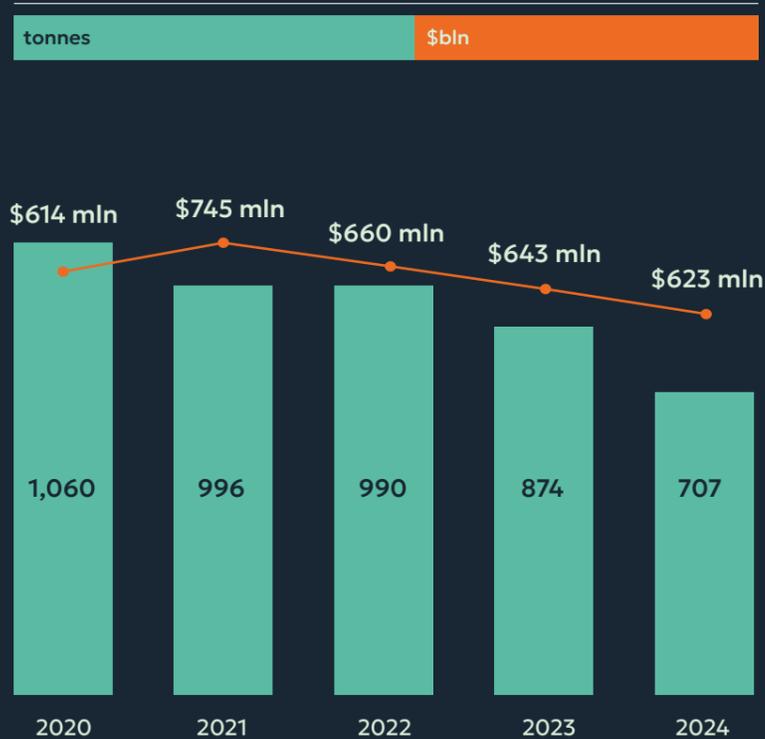


Figure 31. Kazakhstan's top silver importers, 2024

| | |
|-------------|-----|
| USA | 240 |
| UK | 210 |
| Switzerland | 61 |
| UAE | 55 |
| India | 44 |
| Others | 14 |



Imports

Kazakhstan is a net exporter of silver, with minimal annual import volumes. In 2024, the country imported about 5 tonnes of silver, valued at \$1.7 million. The majority of these imports originated from Italy.

Figure 32. Kazakhstan's silver imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7106

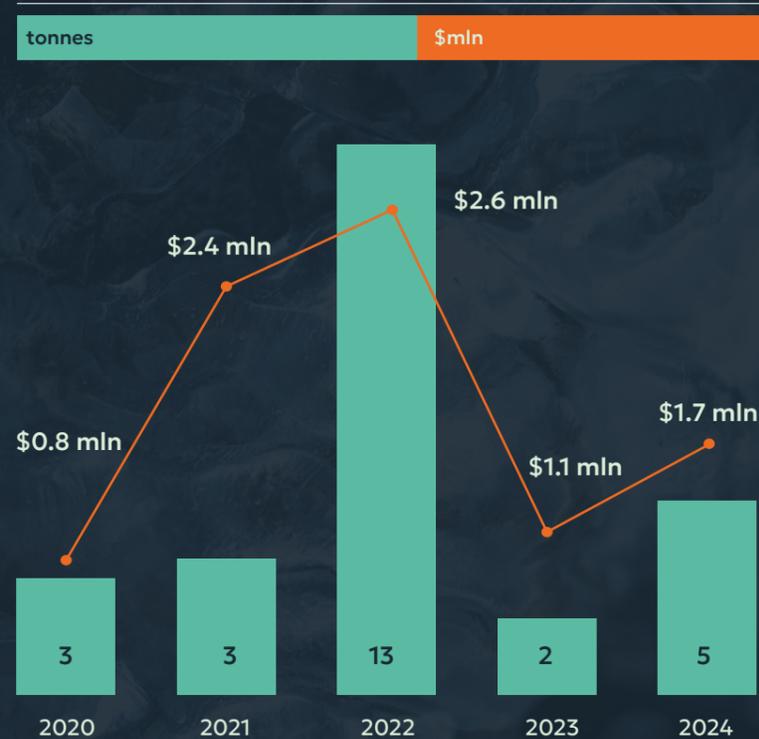


Figure 33. Silver exporters to Kazakhstan, 2024

| | |
|--------|-----|
| Italy | 1.5 |
| Others | 0.2 |



ALUMINIUM

Reserves

In 2024, Kazakhstan's bauxite reserves are estimated at 280 thousand tonnes, placing the country 10th globally. This represents close to 1% of total identified world reserves of 29 million tonnes.

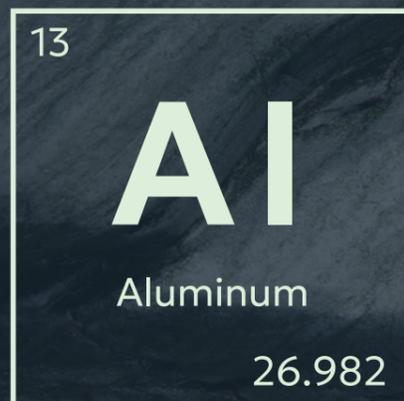
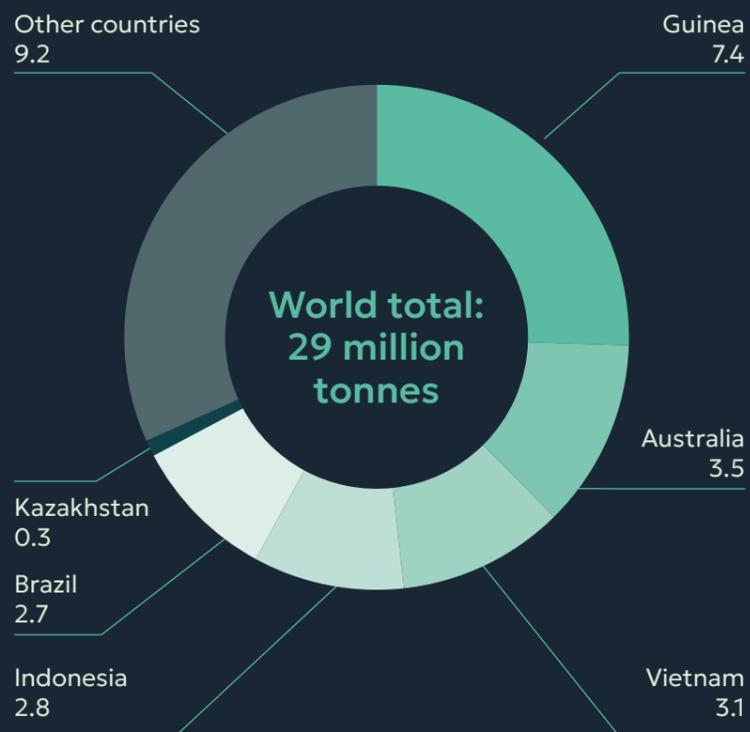


Figure 34.
Global reserves of bauxite ore in 2024, in mln tonnes



Production

Kazakhstan's share of the global aluminium market remains below 1%. Aluminium is extracted from bauxite ore.

Bauxite mine production in Kazakhstan has fluctuated over the past five years. The 2024 output of approximately 4.9 million tonnes bauxite ore has yet to surpass 2020 production levels. In 2024, Kazakhstan accounted for 1.1% of global bauxite mine production.

The country's major bauxite mines are located in the Kostanay region, while the largest aluminium production facility is situated in Pavlodar, benefiting from access to low-cost electricity, which is essential for aluminium extraction.

Figure 35.
Kazakhstan's bauxite mine production and share globally (2020-2024)

Source: U.S. Geological Survey, Mineral Commodity Summaries



Exports

Kazakhstan maintains an average annual aluminium export volume of approximately 240 thousand tonnes. In 2024, the country exported 242 thousand tonnes primary aluminium (unwrought, HS 7601), generating \$543 million in export revenues - a 20% decline in value compared to 2021 and 2022. Key export destinations in 2024 included Azerbaijan (25%), Poland (17%), China (13%), Italy (13%), and Bulgaria (8%), reflecting a diversified yet evolving market landscape.

In the global aluminum market, Kazakhstan ranked 6th among the world's exporting countries in 2023, with about a 4% share.³⁴

³⁴ The Atlas of Economic Complexity

Figure 36. Kazakhstan's aluminium exports (2020-2024)

Kazakhstan's Bureau of National Statistics. HS code 7601

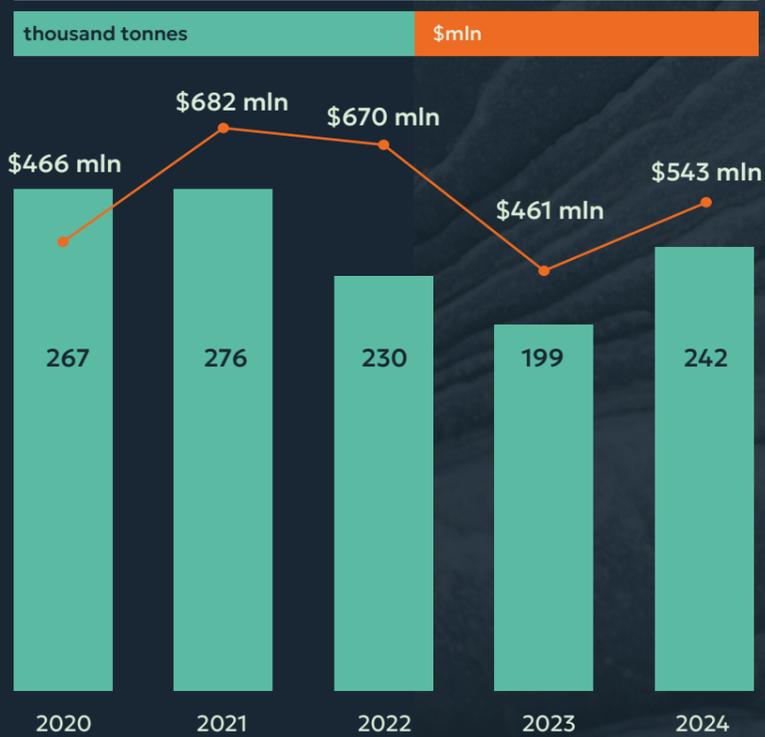


Figure 37. Kazakhstan's top aluminium importers, 2024



Imports

Kazakhstan is a net exporter of aluminium, with limited annual import volumes. In 2024, the country imported 819 tonnes of aluminium, valued at approximately \$3 million. Imports originated from Russia, Germany, and China.

Figure 38. Kazakhstan's aluminium imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS code 7601

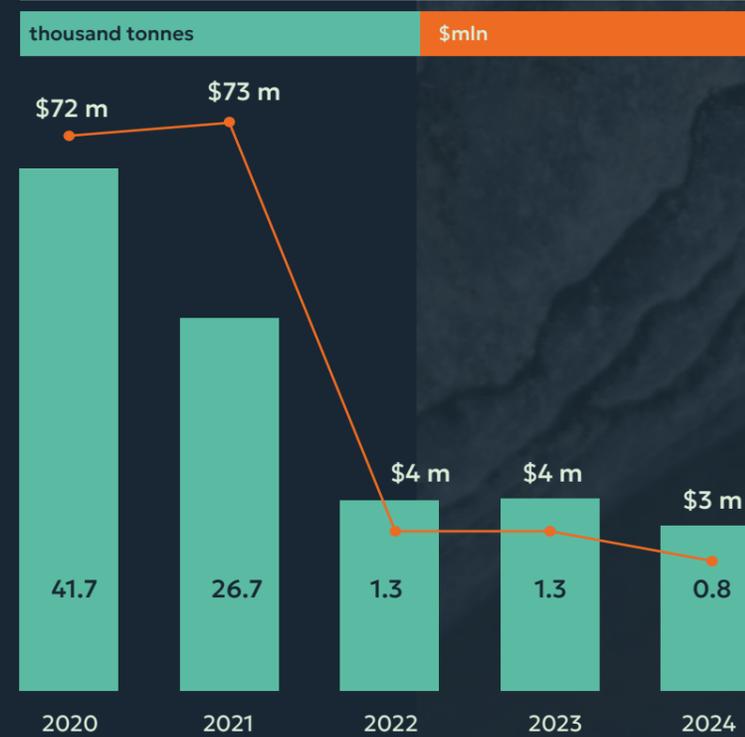
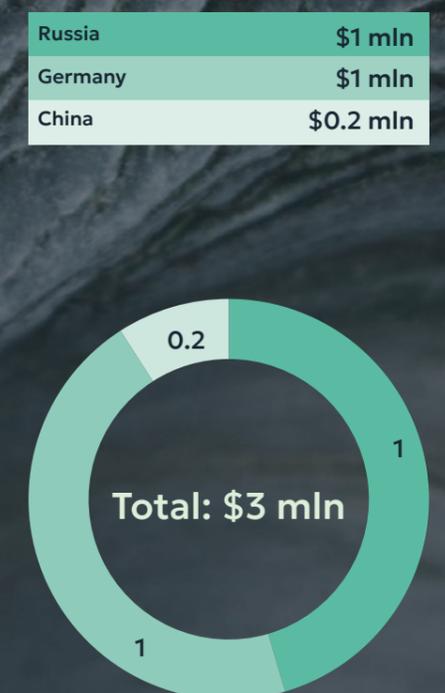


Figure 39. Aluminium importing countries to Kazakhstan, 2024



GOLD

Reserves

Kazakhstan holds the 14th place in relation to gold reserves in the world.

There are nearly 300 known gold deposits nationwide, and output has more than doubled over the past decade amid new project developments. Major gold-bearing regions include:

- **Abai Region – 36%** of national reserves (home to large deposits like Bakyrchik, 326 tonnes)
- **Akmola – 22%** (home to giant Vasilkovskoye deposit, ~370 tonnes)
- **Karaganda – 12%**
- **Kostanay – 9%**

Figure 40.
Global reserves of Gold in 2024, tonnes



79

Au

Gold

196.967

Production

Gold mine production in Kazakhstan has increased by 30% since 2020, reaching 130 tonnes in 2024. The country's share of global gold mine production stood at 4% in 2024³⁵. With gold prices high and central bank demand strong, further development of untapped deposits (many of which are in exploration stage) offers solid investment potential.

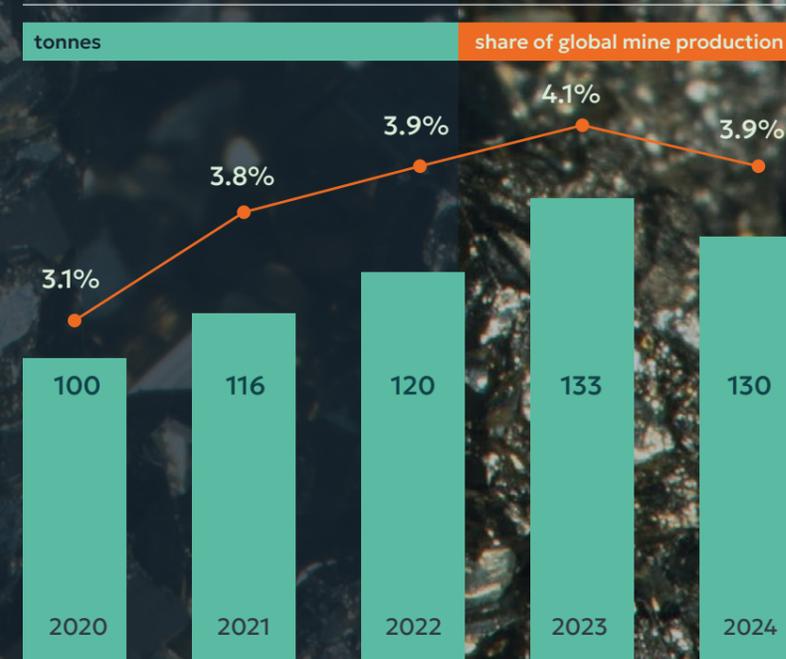
The government, through initiatives like “Kazakh Invest” and the state gold company Tau-Ken Samruk, has been actively promoting gold projects. One investment highlighted is a new gold and silver alloy plant in the Abay region (Karaganda) to produce bullion for export, illustrating efforts to increase value addition domestically. There are also efforts to attract junior exploration companies for gold, leveraging the new mining code's simplified licensing, dozens of exploration licenses for gold have been granted since 2018.³⁶ This is crucial, as sustaining gold production long-term will require discovering new deposits or expanding known ones

(many Soviet-discovered gold deposits are now mined out or in their mature stages).

Key players are Glencore, Solidcore Resources, KAZ Minerals, and Altynalmas - operate the largest gold-producing mines in Kazakhstan, including Altyntau Kokshetau, Kyzyl, Varvara, Bozshakol, and Pustynnoe.³⁷

Kazakhstan hosts three operational gold refineries that are engaged in the processing and purification of gold: Kazzinc in Ust-Kamenogorsk, Kazakhmys in Balkhash, and the Tau-Ken Altyn refinery in Astana.

Figure 41.
Kazakhstan's gold mine production and share globally (2020-2024)



³⁵ USGS – Mineral Commodity Summaries 2025

³⁶ Based on an expert interview conducted by the Astana International Financial Centre, 2025

³⁷ The five largest gold mines in Kazakhstan

Exports

Since gold is the major precious metal, it has a special status and special exports conditions as a reserve³⁸ metal. The NBRK exercises the state's priority right to acquire refined gold for the purpose of replenishing its reserves. For the purpose of this report monetary gold (HS code 710820) is excluded from the statistics on exports.

On average, Kazakhstan exports approximately 5 tonnes of gold annually. In 2024, exports reached 6 tonnes, valued at \$418 million, with primary

destinations being neighbouring countries such as Kyrgyzstan and Russia.

Despite ranking 14th globally in gold reserves and being among the top 8 gold-producing countries in 2024 (according to USGS), Kazakhstan's reported share in global gold exports remains modest at around 3%.

The largest global exporters of gold are Switzerland (21%), the United Kingdom (11%), the UAE (10%), the United States (5%).³⁹

³⁸ Law of the Republic of Kazakhstan "On precious metals and precious stones"

³⁹ The Atlas of Economic Complexity

Figure 42.
Kazakhstan's gold exports (2020–2024) importers, 2024

Source: Kazakhstan's Bureau of National Statistics. HS codes 710811, 710812, 710813.

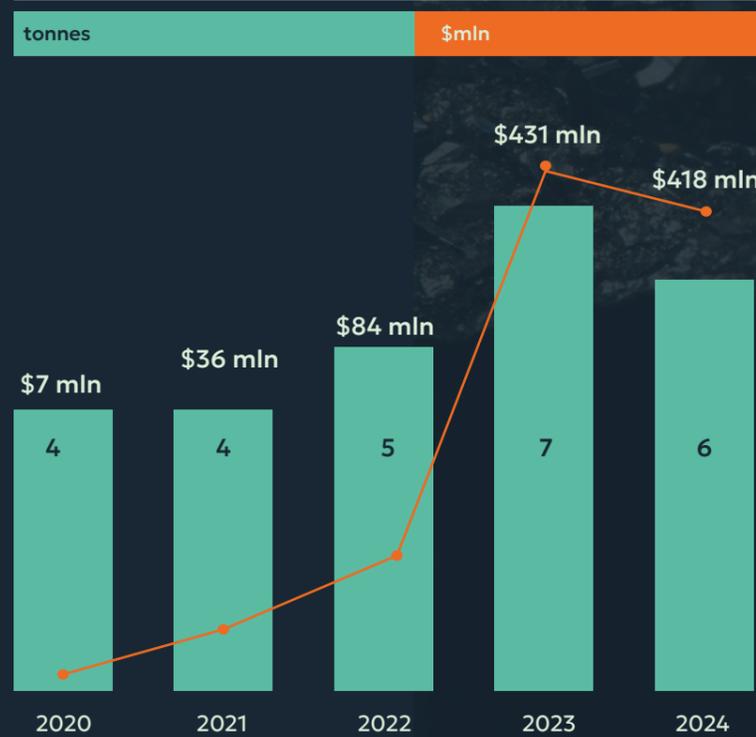


Figure 43.
Kazakhstan's top gold

| | |
|------------|-----|
| Kyrgyzstan | 238 |
| Russia | 178 |
| Others | 1 |



Imports

Kazakhstan is a net importer of gold. In 2024, the country imported about 7 tonnes of gold, valued at \$541 million. The majority of these imports originated from Russia.

Figure 44.
Kazakhstan's gold mine imports (2020–2024)

Source: Kazakhstan's Bureau of National Statistics. HS codes 710811, 710812, 710813. A monetary gold is excluded

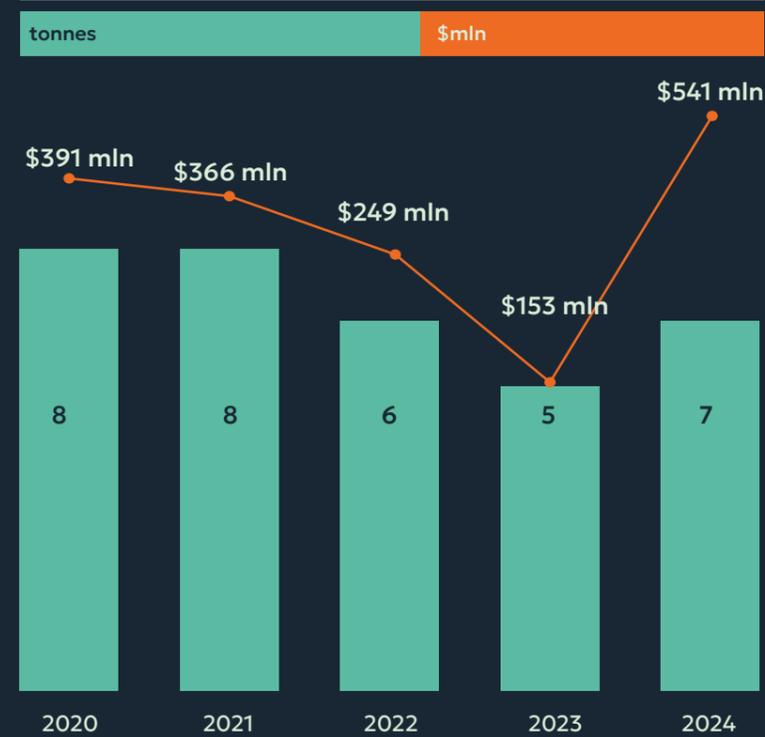


Figure 45.
Gold mine exporting countries to Kazakhstan, 2024



NICKEL

Reserves

Kazakhstan's nickel reserves are found primarily in the Pavlodar and Kostanay regions. These reserves are primarily composed of laterite and sulfide ores, which are crucial for the country's potential to expand its role in global nickel markets. According to Kazakh Invest, Kazakhstan is in the top 20 countries in terms of nickel reserves with about 1.5 million tonnes (2% of global reserves).

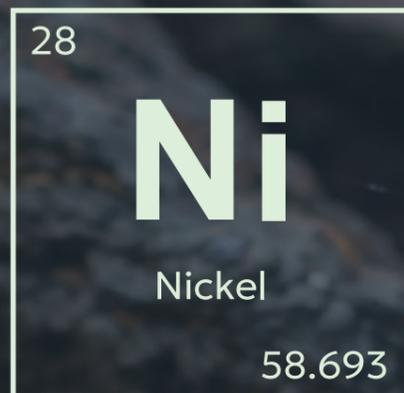
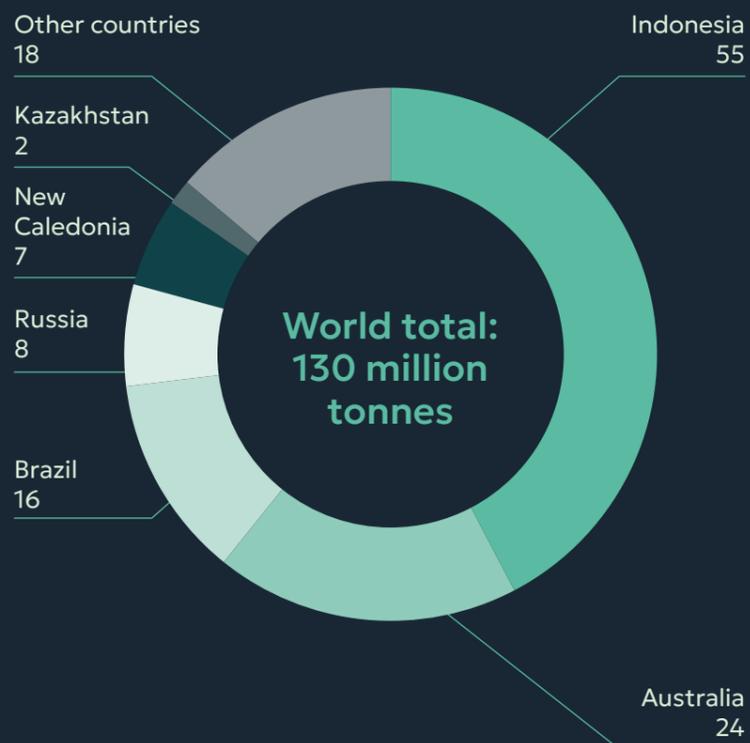


Figure 46.
Global reserves of Nickel in 2024,
million tonnes



Production

Kazakhstan's nickel production is heavily linked to its domestic demand for stainless steel and its increasing involvement in the production of materials used in battery technologies. The government continues to explore new mining prospects to expand production capacity.

Exports

Kazakhstan's nickel exports have fluctuated year to year without a clear trend. In 2024, the country exported 1 thousand tonnes of nickel with an export value of \$4.5 million. All of the exports were directed to European markets, with Germany accounting for 84%, followed by Lithuania (9%) and Latvia (7%). Germany has consistently remained Kazakhstan's primary export destination for nickel.

Kazakhstan's role in the global nickel market remains minimal, with a market share of less than 1%.⁴⁰

⁴⁰ The Atlas of Economic Complexity

Figure 47. Kazakhstan's uranium exports, (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS codes 7502, 2604



Figure 48. Kazakhstan's top nickel importers, 2024

| | |
|-----------|-----|
| Germany | 3.7 |
| Lithuania | 0.4 |
| Latvia | 0.3 |



Imports

Kazakhstan's nickel imports have shown year-on-year fluctuations, though the overall trend has been upward in recent years. Due to variability in the country's nickel exports, net trade figures remain inconsistent and lack a clear directional trend. In 2024, Kazakhstan imported approximately 159 tonnes of nickel, valued at \$4.3 million.

Figure 49. Kazakhstan's nickel imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics. HS codes 7502, 2604

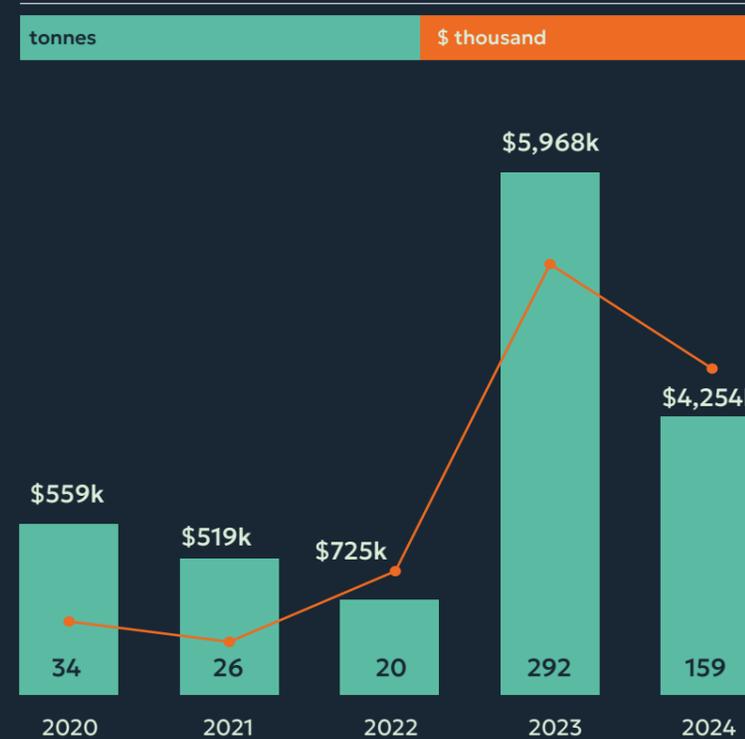


Figure 50. Nickel exporters to Kazakhstan, 2024

| | |
|--------|-----|
| Russia | 4.0 |
| Others | 0.3 |



REM

Reserves

Rare earth metals are critical for high-tech and clean energy applications. They represent one of Kazakhstan's most promising underdeveloped resources. Until recently, Kazakhstan had 15 identified rare earth deposits across regions (Turkistan, Kostanay, Mangystau) but little extraction.

In early 2025, Kazakhstan announced the discovery of a major rare earth deposit in the **Karagandy region**. According to official estimates, the deposit contains approximately **935,000 tonnes of rare earth oxides (REO)**, based on around 20 million tonnes of ore with an average grade of **approximately 700 grams per tonne**⁴¹.

This deposit, referred to as the **“New Kazakhstan”** site, is considered one of the largest rare earth finds globally. If current estimates are confirmed through geological certification, it would place Kazakhstan as the **third-largest country by rare earth reserves**, following **China** and **Brazil**.⁴²

The discovery strengthens Kazakhstan's position in the global supply of critical raw materials, with rare earth elements playing an essential role in modern technologies, including electric vehicles, wind turbines, electronics, and other advanced industrial applications.

Production

At present, Kazakhstan produces only very small quantities of rare earths, mainly through test projects and processing of industrial residues. One known operation is at the Stepnogorsk plant, which has experimented with extracting rare earth concentrates from uranium tailings and other secondary sources. Total REE output is still only a few dozens of tonnes per year of mixed rare earth compounds – not enough to register internationally (Kazakhstan does not appear in USGS's list of REE-producing countries yet).

However, this is poised to change. The government has made rare earths a strategic focus, approving a “Complex Plan for Rare Metals and REE Development 2024–2028”. Under this plan, about KZT 2.4 billion (\$5+ million) will be invested in geological exploration, R&D, and pilot production for rare earths. The goal is to create a vertically

integrated REE industry – from mining to separation – in collaboration with foreign partners (Kazakhstan has engaged with companies and institutions from Germany, Japan, and South Korea regarding rare earth cooperation).

While rare earth elements remain an emerging sector in Kazakhstan, the broader mining industry is facing similar challenges. Even major players such as Kazakhmys, Kazzinc, Karmet, and ERG are encountering depletion of their mineral reserves, prompting increased investment in geological exploration. These trends reinforce the urgency of initiatives like the government's Complex Plan for Rare Metals and REE Development 2024–2028, which aims to secure long-term mineral supply through exploration and technological advancement.

COMPLEX PLAN FOR RARE METALS AND REE DEVELOPMENT 2024–2028, WHICH AIMS TO SECURE LONG-TERM MINERAL SUPPLY THROUGH EXPLORATION AND TECHNOLOGICAL ADVANCEMENT.

⁴¹ Kazakhstan says it has discovered 20 million ton rare earth metals deposit | Reuters

⁴² Karagandy Geologists Discover Rare Earth Element Deposit - The Astana Times

Exports

Kazakhstan's exports of REMs remain limited and volatile, both in volume and value. The highest recorded export was in 2023, when the country exported over 1 thousand tonnes of REMs to China, valued at \$6.9 million. Export activity in 2024 was limited, with no exports to China and minimal sales to European markets, amounting to \$0.1 million.

Kazakhstan's REM and REE deposits are still in the early stages of exploration and development. As a result, the country currently holds no significant share in the global REM export market.

Figure 51. Kazakhstan's REM exports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics, HS codes 280530, 284690

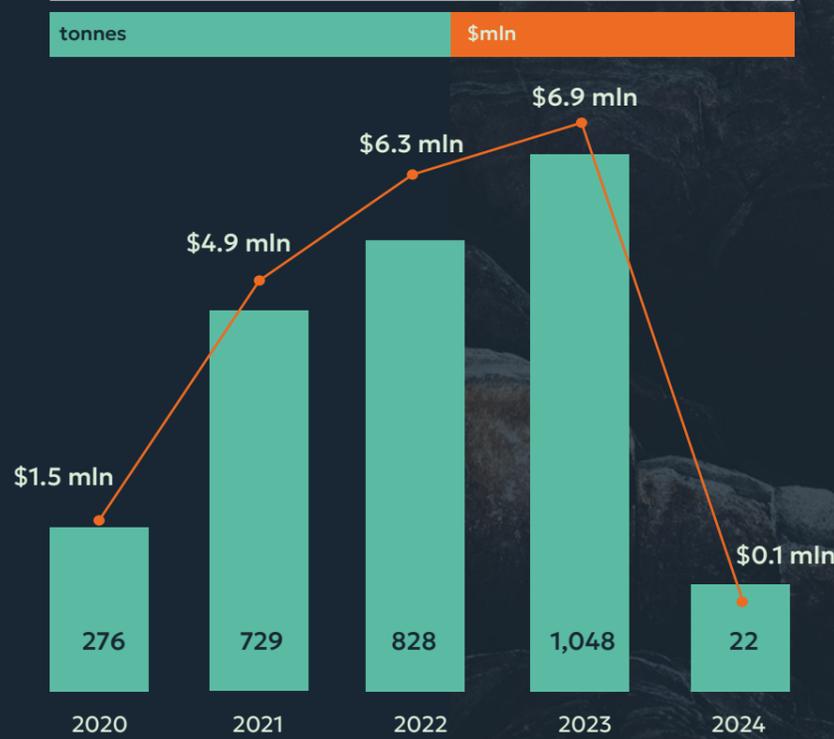
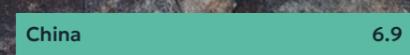


Figure 52. Kazakhstan's top REM importers, 2023



Imports

Kazakhstan's REM imports have fluctuated year-on-year; however, the country remains a net exporter of REMs, except the last year. In 2024, Kazakhstan imported approximately 20 tonnes of REMs, with a total import value of \$326.6 thousand. Notably, over 90% of these imports originated from China, consistent with previous years.

Figure 53. Kazakhstan's REM imports (2020-2024)

Source: Kazakhstan's Bureau of National Statistics, HS codes 280530, 284690

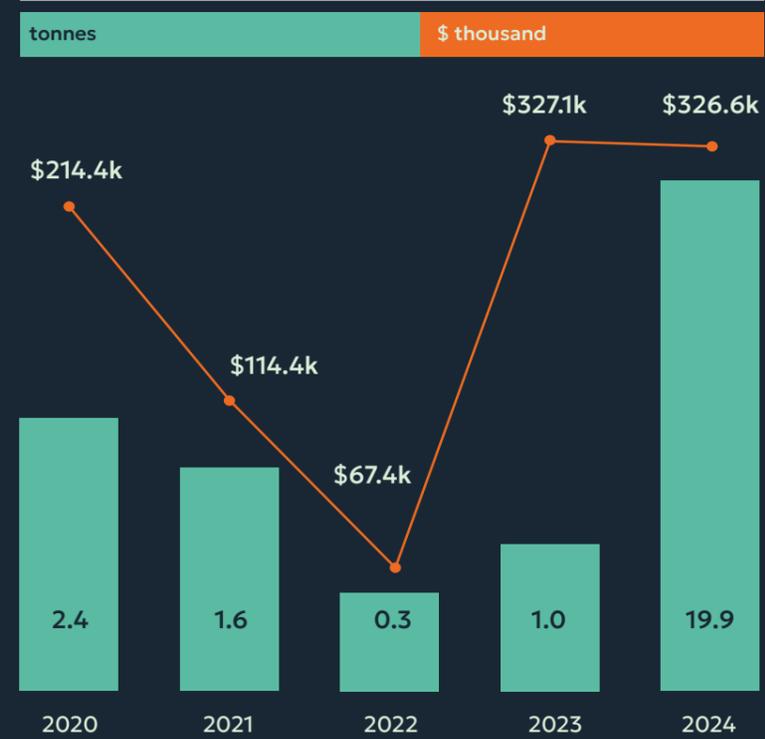


Figure 54. REM exporters to Kazakhstan, 2024



Note:
 HS code 280530 - Rare earth metals, scandium and yttrium in pure form, in mixtures or alloys;
 HS code 284690 - Other rare earth metal compounds.

3.4

STRATEGIC IMPORTANCE OF KAZAKHSTAN & CENTRAL ASIA IN GLOBAL RESOURCE SUPPLY CHAINS

The Global Resource Paradigm is Reorganizing - Kazakhstan can sit at its pivot

The architecture of global mineral supply chains is undergoing a structural transformation, catalyzed by three simultaneous forces:



the securitization of resource access in national industrial policy.



the re-onshoring and regionalization of supply chains post-COVID and amid geopolitical fragmentation.



and the material intensity of the global energy transition, which is redefining the strategic value of resource-rich geographies.

In this new reality, location, reliability, and institutional maturity matter as much as resource abundance.

Kazakhstan can emerge not merely as an exporter, but as a strategic geopolitical player in the new global resource landscape. It offers a unique combination of scale, neutrality, and underexplored mineral depth that few jurisdictions worldwide can match.

KAZAKHSTAN'S ENDOWMENT ALIGNS WITH ENERGY TRANSITION DEMAND

Kazakhstan's resource endowment is not just extensive - it is strategically synchronized with global demand asymmetries. The country is:



The world's #1 uranium producer (~40% of global supply), critical to low-carbon baseload energy.



Among the top 10 in global reserves of copper, lead, zinc, and chromium, essential to grid electrification and industrial resilience.



Home to large but underdeveloped deposits of rare earth elements, lithium, cobalt, and beryllium, minerals at the heart of battery storage, defense, and high-performance electronics.

What distinguishes Kazakhstan from many other mineral-rich economies is that this resource base is relatively de-risked geologically (due to proven deposits), proximate to infrastructure, and undervalued by global capital markets.

GEOGRAPHICAL CENTRALITY: A NATURAL CORRIDOR OF MINERAL TRADE

Kazakhstan's location between Europe, China, Russia, and South Asia provides it with rare geographic leverage. It serves as the physical heart of several overlapping regional and global transport strategies:



The Trans-Caspian International Transport Route (TITR), also known as the Middle Corridor, provides a China-Europe overland route that offers an alternative to traditional transport paths, which is especially important for global trade in today's complex geopolitical environment.



The Belt and Road Initiative (BRI), where Kazakhstan is a founding land corridor node.



The EU Global Gateway and other Eurasian connectivity frameworks, where Kazakhstan is positioned as a logistics and digital infrastructure partner.

The comparative advantage lies in the ability to absorb capital, apply standards, and re-export value - whether as a host of refining capacity, logistics corridors, or SPVs for cross-border mining development. In this sense, Kazakhstan has the potential to function not just as a country, but as a regional resource system

This overland access, coupled with investment into dry ports (Khorgos), multimodal terminals (Aktau, Altynkol), and special economic zones, allows Kazakhstan to control not just production, but movement - a vital feature as supply chain resilience becomes a strategic priority for import-dependent nations.

Kazakhstan is also uniquely placed to act as a regional value-chain integrator. While countries such other countries in the region possess meaningful gold, tungsten, antimony, and rare earth deposits, they lack deep capital markets, legal certainty, and logistics infrastructure.

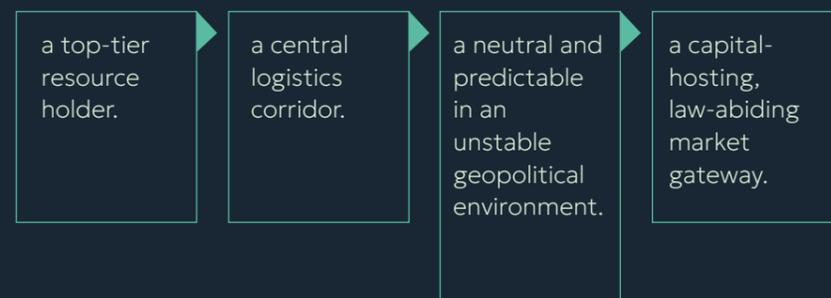
GEOPOLITICAL NEUTRALITY AND SUPPLY CHAIN TRUSTWORTHINESS

Kazakhstan's multi-vector foreign policy—pragmatic engagement with China, the EU, the United States, Russia, and the Gulf states—gives buyers and investors a politically flexible supply option. Kazakhstan's growing role in critical minerals diplomacy—including participation in the Minerals Security Partnership

(MSP) and bilateral frameworks with Germany, Korea, and Japan—further supports its reputation as a stable, predictable, and reliable counterparty amid rising resource nationalism, ESG frictions, and uneven risk across market.

CONCLUSION: KAZAKHSTAN AS A STRATEGIC SUPPLY CHAIN STATE

Kazakhstan's role in the new mineral order can be multi-dimensional because it is:



These characteristics make it not only relevant - but essential - to any long-term industrial strategy centered on critical mineral access, energy security, and global supply chain resilience.

For investors, OEMs, governments, and financial institutions, Kazakhstan represents a rare case where resource logic, infrastructure logic, and institutional logic intersect - forming a compelling case for engagement not only as a supplier, but as a strategic partner.

3.5

KAZAKHSTAN'S POLICY AMBITIONS FOR THE MINING SECTOR

Strategic Positioning of Mining in National Development Policy

Strategic Positioning of Mining in National Development Policy

Kazakhstan's government has identified the mining sector as a strategic engine of long-term economic diversification, export growth, and industrial modernization. While hydrocarbons have historically dominated external revenues, the state increasingly views mineral resources, particularly critical and transition metals - as a foundation for sustainable, high-multiplier growth.

Mining underpins Kazakhstan's economic diversification goals. The 2018 Subsoil and Subsoil Use Code (adopted Dec 27, 2017; effective June 29, 2018) reorients the sector with a streamlined licensing process and adherence to international standards. The Code aims to facilitate "exploration-driven investment", support uranium and solid-mineral extraction distinctly, and separate oil & gas oversight.

REFORM PILLARS SUPPORTING INVESTMENT

- 1 Licensing System Overhaul**

 - ▶ Transition to first-come-first-served licensing for solid minerals (excluding uranium).
 - ▶ Removes contract-based barriers and supports swift issuance of exploration rights, including priority given upon commercial discovery.

- 2 Geological Data & Transparency**

 - ▶ Creation of the National Subsoil Data Bank, offering free access to prospectivity information and historical project data.
 - ▶ State-backed geological surveys reinforce investor confidence via independent metadata generation.

- 3 Critical Minerals & Transportation Infrastructure**

 - ▶ Strategic targeting of lithium, rare earths, copper, and cobalt as high priority, with support for strategic joint ventures.
 - ▶ Policies incentivize domestic processing clusters, ferroalloy smelting, and battery-grade material development.

- 4 Legal and Arbitration Framework for foreign investors**

 - ▶ AIFC legal system, based on English common law, provides licensing and arbitration clarity.
 - ▶ Recognition of international dispute mechanisms, and permissioned transferability of license rights.

- 5 ESG and Green Finance**

 - ▶ Alignment with OECD and EITI transparency standards.
 - ▶ Growing access to green bonds and climate-aligned finance via AIFC, targeting ESG compliance frameworks.

State bodies coordinate policy execution:



The Ministry of Industry and Construction oversees mining licensing and sector regulation.



Tau-Ken Samruk: state mining holding, engaged in critical mineral development.



Geology Committee / KazGeology manages geological data and conducts surveys.



Collaboration extends across the **Ministry of Energy, Environmental Code authority,** and **Kazakh Invest** for permits, export promotion, and investor relations.

4

COMPARATIVE ANALYSIS: KAZAKHSTAN, CANADA, CHILE, AUSTRALIA, AND INDONESIA

SECTION SUMMARY

Kazakhstan has a diverse critical minerals base, including rare earths, lithium, tungsten, beryllium, and tantalum. It is strategically positioned to emerge as a significant mineral hub, as demonstrated by comparisons with leading global peers. It distinguishes itself with vast critical mineral reserves, low energy costs, and a national drive for industrial integration through value-added processing. Bolstered by exploration incentives and the AIFC's favorable legal and financial framework, it offers a compelling alternative to more mature markets. However, to fully solidify its standing as a premier hub, Kazakhstan must prioritize enhancing long-term policy consistency, fostering its junior mining sector. Global demand trends present a unique opportunity to advance from raw mineral exports toward integrated supply chains and downstream manufacturing.

KEY INSIGHTS

- 1 The country has commercial production in some critical minerals but underdeveloped capacity in others with high global demand.
- 2 Processing and refining bottlenecks limit value capture from mineral exports.
- 3 Strategic partnerships can bridge capability gaps and connect Kazakhstan to global clean-tech supply chains.

KEY NUMBERS

30+

critical mineral types identified in Kazakhstan's geology.

>90%

of rare earth processing globally is still controlled by China, underscoring diversification opportunities.

1st largest global uranium producer with

40%

of global production.

4.0

COMPARATIVE ANALYSIS: KAZAKHSTAN, CANADA, CHILE, AUSTRALIA, AND INDONESIA

Figure 55.
Overview of Mining Industry of Kazakhstan, Chile, Canada, Australia, and Indonesia, 2023.

Kazakhstan, Canada, Chile, Australia, and Indonesia have developed their national mining strategies, reflecting each country's resource endowment, policy priorities, and aspirations to play a pivotal role in global critical mineral supply chains. While all five countries emphasize the importance of exploration, value-added

processing, and sustainable practices, their approaches differ in institutional design, industry-state collaboration, and positioning within emerging battery and clean technology markets.

Global demand for critical metals and rare earth elements (REEs) is accelerating, driven by their indispensable role in renewable energy, electric vehicles, and advanced technologies. Established mining hubs such as Chile, Australia, Canada, and Indonesia are reinforcing their positions as reliable and sustainable suppliers of these resources. In this context, Kazakhstan is actively enhancing its regulatory framework, infrastructure,

and financial ecosystem to foster a business-friendly environment that supports the growth of its mining sector.

This section provides a detailed comparative analysis of these five countries, structured by country to highlight their resource endowments, national mining strategies, investment climates, infrastructure, and exploration activities.

| | Kazakhstan | Chile | Australia | Canada | Indonesia |
|--|----------------------------------|-------------------|-------------------------|---------------------------------|---------------------|
| Mining Contribution to GDP | 14% | 10.9% | 14.3% | 4% | 8% |
| Government Key Priorities (Mining) | Exploration, domestic processing | Copper, Lithium | Critical Metals | Critical Metals | Nickel |
| Top Metals | U, Cu, Zn, Pb, Cr, REEs | Cu, Li, Mo, Ag | Cu, Li, Ni, Fe, U, REEs | Potash, Ni, Cu, U, Fe, Au, REEs | Ni, Co, Cu, Au, Tin |
| Exploration Investment Climate⁴³ | Moderate | Strong | Very Strong | Very Strong | Improving |
| JORC/NI 43-101 Adoption | Partial | Full (JORC-based) | Full (JORC) | Full (NI 43-101) | Partial (underway) |
| Green Finance Availability | Growing via AIFC | Moderate | Advanced | Advanced | Limited |
| Role of Capital Markets | Emerging (AIX, AIFC) | Strong (SSE) | Very Strong (ASX) | Very Strong (TSX, TSXV) | Growing (IDX) |

⁴³ The exploration investment climate varies significantly across jurisdictions, reflecting differences in regulatory maturity, capital market access, and technical standards. Canada and Australia stand out with a very strong climate, underpinned by globally recognized reporting codes (NI 43-101 and JORC), well-established capital markets (TSX/TSXV and ASX), and advanced green finance ecosystems. These features provide investors with transparency, liquidity, and ESG-aligned funding options. Chile also offers a strong investment environment, benefiting from full JORC-aligned reporting, and the Santiago Stock Exchange's growing role in resource-sector financing. Kazakhstan, while rich in mineral potential, currently presents a moderate climate due to partial alignment with international standards and a still-maturing capital market.

Figure 56. National Mining Strategies

| Country | Strategic Focus | | Policy Tools | Role of State | Industrial Integration |
|------------|--|--|--|------------------------------|------------------------------------|
| Kazakhstan | Critical minerals, REE and REM processing | | Geological reform, PPPs, AIFC | Facilitator + Investor | Early-stage (processing targets) |
| Canada | Clean tech supply, chains, ESG leadership | | Tax credits, flow-through shares, infrastructure funding | Enabler (market-driven) | High (vertical integration) |
| Chile | State-led lithium model, ESG modernization | | CEOs, public R&D, biodiversity rules | Active Partner (public JV) | Medium (DLE, Li-tech localization) |
| Australia | Sovereign supply chains, processing & export | | CMF, NAIF, state roadmaps, permits reform | Coordinator (federal/states) | High (battery inputs, hydrogen) |
| Indonesia | Downstream nickel, EV batteries, export bans | | Export restrictions, SOEs, tax holidays, IBC leadership | Dominant (state-led) | High (EV & battery clusters) |

The AIFC has been instrumental for improving Kazakhstan’s investment appeal by offering tax exemptions, streamlined dispute resolution, and access to international capital. However, to match the established mining regimes of Canada and Australia, Kazakhstan could further improve long-term policy consistency, especially in attracting early-stage exploration capital.

The AIFC is strategically positioned to offer a transparent legal jurisdiction for mining companies, based on English common law, including access to AIFC Court and International Arbitration Centre (IAC) arbitration services; in parallel, Kazakhstan is streamlining subsoil licensing procedures—measures that, taken together, are designed to support investor confidence.

Kazakhstan is strengthening its fiscal and legal frameworks to attract long-term investment into its mining sector, particularly for critical mineral development. The Astana International Financial Centre offers a highly favorable tax regime that includes exemptions from corporate income tax, property tax, and land tax, as well as personal income tax exemptions for expatriate staff employed by AIFC-registered companies. Additionally, dividends, interest, and capital gains from securities listed on the Astana International Exchange are exempt from both corporate and individual taxation. These benefits, guaranteed until 2066 under the Constitutional Statute of the AIFC, are reinforced by its independent

legal system based on English common law and world-class dispute resolution mechanisms.

Further strengthening Kazakhstan’s investment climate, the new Tax Code signed into law on July 18, 2025 (effective from January 1, 2026), introduces significant incentives for the mining industry. Among the key changes are 100% capital expenditure deductions for exploration companies, 0% Mineral Extraction Tax (MET) for five years on new low-profit solid mineral sites, and a broader simplification of tax administration across the sector. Together, these measures reflect Kazakhstan’s strategic commitment to creating a globally competitive and investor-friendly

environment for mining and resource development.

With its vast mineral potential, improving regulatory environment, and growing focus on sustainable mining practices, Kazakhstan is well-positioned to become a key player in the global critical minerals supply chain. By leveraging these advantages, the country has enormous potential to attract the necessary foreign investment to unlock its mining sector’s full potential, diversifying the global market and reducing reliance on dominant suppliers.

Logistics and energy costs play a key role in mining competitiveness, especially in processing and refining. Kazakhstan and Indonesia

benefit from low industrial energy prices, making them attractive for investment. In Chile, energy costs are moderate on average; however, they rise in remote areas and can account for a significant share of operating expenses. In Australia, due to price volatility and differences in supply sources (grid power, gas, diesel, and renewable-energy PPAs), costs range from high to moderate. Canada ranges from low to moderate, with low-cost hydro power in provinces like Quebec, while others, such as Ontario, face higher market-based electricity rates. These variations affect the overall cost-efficiency of mining operations across countries.

⁴⁴ <https://aifc.kz/tax-benefits/>

⁴⁵ <https://kazakhstan.moore-global.com/en/news/july-2025/new-tax-code-key-changes>

Figure 57. Mining Infrastructure⁴⁶

| Country | Supply Chain Integration | Port Access | Rail & Road | Energy Costs | Main Destinations |
|------------|--------------------------|-------------|----------------|--------------|-------------------|
| Kazakhstan | Developing | Landlocked | Extensive | Low | China, Russia, EU |
| Chile | Integrated | Excellent | Limited Rail | Moderate | U.S., China |
| Australia | Strong | Excellent | Strong Network | High | U.S., Japan, EU |
| Canada | Strong | Excellent | Well-developed | Moderate | U.S., EU |
| Indonesia | Developing | Extensive | Java-focused | Low | ASEAN, China |

Figure 58. Exploration Ecosystem⁴⁷

| Country | Junior Miner Presence | Exploration Incentives | Reporting Standards | Geological Data Access | Exploration Financing |
|------------|-----------------------|-------------------------------|---------------------------------|------------------------|-----------------------------------|
| Kazakhstan | Low | Developing | Partial (non-mandatory JORC) | Improving | Emerging (via AIFC/AIX) |
| Chile | Moderate | Limited | Full (JORC-based) | Moderate | Moderate |
| Australia | High | High (grants, tax incentives) | Full (JORC-Code) | Strong | Very Strong (via ASX, private VC) |
| Canada | Very High | High (flow-through shares) | Full (NI 43-101) | Strong | Very Strong (via TSX, TSVX) |
| Indonesia | Low | Limited | Partial (alignment in progress) | Limited | Weak (state-driven) |

Exploration activity is a vital driver of mineral sector competitiveness and long-term sustainability. Countries that foster robust, investor-friendly exploration ecosystems are better positioned to discover new deposits, attract foreign capital, and ensure the resilience of their resource base. A comparative assessment of Kazakhstan, Chile, Canada, Australia, and Indonesia reveals substantial differences in exploration intensity, financing mechanisms, and institutional maturity.

⁴⁶ Based on AIFC analysis

A dynamic financial ecosystem plays a pivotal role in unlocking the full potential of mining ventures, from exploration to large-scale production. A key difference lies in the maturity of the exploration ecosystem. Canada and Australia benefit from a vibrant junior mining sector and deep access to venture capital markets, while Kazakhstan is still developing these layers.

The AIFC plays a crucial role in filling this gap by offering capital market infrastructure and incentives for junior

miners. Since its launch in 2018, the AIFC has emerged as a key driver of investment in Kazakhstan’s mining sector, leveraging its common-law framework, attractive tax incentives, and internationally recognized arbitration center to attract global capital.

With strong momentum already achieved, the AIFC is now entering a new phase -positioning itself as a regional leader in mining finance. Canada’s TSX Venture Exchange remains the premier marketplace for junior mining companies, while Australia’s

⁴⁷ Based on AIFC analysis

ASX hosts the world’s largest concentration of listed mining firms. Meanwhile, Chile’s Santiago financial hub acts as a vital link between international investors and its world-class copper and lithium industries.

With its strategic location, business-friendly environment, and commitment to continuous improvement, the AIFC is evolving into a sophisticated financial hub capable of supporting Kazakhstan’s ambitions in the global mining sector.

4.1

KAZAKHSTAN

Resource Endowment and Geological Potential

Kazakhstan possesses significant reserves of critical minerals, including uranium (ranked #1 producer globally since 2009), chromium, copper, beryllium, and a growing base of rare earth elements concentrated mainly in East Kazakhstan, Aktobe, and Karaganda. The Aktobe region hosts one of the largest chromium reserves in the world, while Karaganda contains significant reserves of manganese, copper, and molybdenum. Despite this, Kazakhstan remains underexplored in terms of REEs compared to Australia's dominant lithium production or Chile's globally leading lithium and copper reserves.

Figure 59.
Major Metals Production & Reserves in Kazakhstan, 2024

| Country | Key Minerals | Production (tons) | Reserves (tons) | Production Rank | Global Production Share (%) | Reserves Rank | Global Reserves Share (%) |
|------------|--------------|-------------------|-----------------|-----------------|-----------------------------|---------------|---------------------------|
| Kazakhstan | Uranium | 21,112 | 814,000 | 1st | 43% | 2nd | 14% |
| | Chromium | 6,500 | 320,000 | 2nd | ~14% | 2nd | ~27% |
| | Copper | 740 | 20,000 | 10th | ~3% | 7th | ~2% |
| | Zinc | 370 | 7,600 | 9th | ~3% | 8th | ~3% |
| | Gold | 130 | 2,300 | 7th | ~4% | 11th | ~4% |

| NATIONAL MINING STRATEGY | INVESTMENT CLIMATE | INFRASTRUCTURE AND LOGISTICS | EXPLORATION ACTIVITY | NEW EMERGING MARKET |
|--|--|---|---|--|
| <p>Kazakhstan has adopted a policy framework to transform its mining sector from a raw-material exporter into a producer of processed critical minerals. The 2023-2027 Geological Industry Development Concept emphasizes streamlined exploration licensing, the creation of a national digital geological data platform, and greater private-sector participation⁴⁸. The 2024-2028 Comprehensive Plan for the Development of the Rare and Rare-Earth Metals Industry targets lithium, and REEs through increased exploration, pilot processing plants, and strategic partnerships⁴⁹. The government prioritizes secondary resource utilization (e.g., tailings), integration into global supply chains, and ESG-aligned investment mechanisms supported by the Astana International Financial Centre.</p> | <p>The country has made significant strides in strengthening its regulatory framework, with improvements to its mining code and investment conditions. The government is streamlining administrative processes and enhancing policy predictability to create an investor-friendly environment. The AIFC offers tax exemptions, streamlined dispute resolution, and access to international capital, positioning Kazakhstan as an attractive destination for mining investment⁵⁰. While progress is clear, streamlining regulatory frameworks and enhancing long-term policy consistency will further elevate Kazakhstan's competitiveness - bringing it closer to the established standards seen in Canada and Australia.</p> | <p>As a landlocked country, Kazakhstan faces higher transportation costs compared to coastal hubs like Chile and Australia. However, its extensive rail network and strategic geographic position provide access to European and Chinese markets. Kazakhstan has invested heavily in modernizing rail infrastructure, including electrification projects and capacity expansions along critical mineral export routes, such as the second Dostyk-Moiynty rail track and over 2,000 km of new lines⁵¹. The Trans-Caspian International Transport Route (Middle Corridor) enhances connectivity to Europe and Asia, while special economic zones near border crossings and Caspian Sea port facilities at Aktau and Kuryk strengthen export capabilities⁵².</p> | <p>Kazakhstan is an emerging exploration frontier with significant untapped geological potential in REEs, lithium, and base metals. The government has introduced simplified subsoil licensing, a digital geological data platform (minerals.e-qazyna.kz), and fiscal incentives to improve the investment climate⁵³. The Unified Subsoil Use Platform streamlines access to geological data, license applications, and permit tracking, enhancing transparency and investor confidence. However, the junior mining sector and exploration financing remain underdeveloped compared to Canada and Australia.</p> | <p>Since the adoption of the Subsoil Use Code in 2018, over 3,200 licenses have been issued, compared to just 600 contracts signed between 1991 and 2018 in the solid minerals sector⁵⁴. This sharp increase demonstrates a significant expansion and liberalization of the market for mineral exploration and development in Kazakhstan.</p> <p>The current trend indicates the emergence of a junior mining market in Kazakhstan. This market has the potential to strengthen Kazakhstan's position in global mineral rankings by accelerating exploration activity, increasing resource discovery, and diversifying the mining sector.</p> <p>However, the development of a strong junior mining market requires sustainable long-term investment, as well as close coordination with the financial sector to ensure access to capital, manage risks, and support project development at early stages.</p> |

⁴⁸ <https://adilet.zan.kz/rus/docs/P2200001127>

⁴⁹ <https://adilet.zan.kz/rus/docs/P2300001221>

⁵⁰ <https://jamestown.org/program/kazakhstan-increases-railway-capacity-along-trans-caspian-international-transport-route/>

⁵¹ <https://jamestown.org/program/kazakhstan-increases-railway-capacity-along-trans-caspian-international-transport-route/>

⁵² <https://timesca.com/kazakhstan-china-railway-cargo-transportation-reaches-record-high-in-2024/>

⁵³ <https://www.gov.kz/memleket/entities/mps/press/news/details/841326?lang=r>

⁵⁴ CPC | Critical Matters: Reflections on Mining in Kazakhstan, and expert interview conducted by the Astana International Financial Centre, 2025

4.2

CANADA

Resource Endowment and Geological Potential

Canada is a global leader in nickel, cobalt, and uranium production, supported by a robust regulatory framework and advanced mining infrastructure. It ranks 2nd globally in uranium production and hosts significant nickel and cobalt operations in Ontario, Quebec, and Saskatchewan. Canada has expanded its focus on REEs with projects like Nechalacho⁵⁵ and Appia REU⁵⁶, backed by federal funding and strategic partnerships. With investments in battery precursor plants and strong ESG standards, Canada is a secure and responsible supplier of critical minerals.

⁵⁵ <https://vitalmetals.com/portfolio/nechalacho-project/>

⁵⁶ <https://appiareu.com/>

Figure 60.
Major Metals Production & Reserves in Canada, 2024

| Country | Key Minerals | Production (tons) | Reserves (tons) | Production Rank | Global Production Share (%) | Reserves Rank | Global Reserves Share (%) |
|---------|--------------|-------------------|-----------------|-----------------|-----------------------------|---------------|---------------------------|
| Canada | Potash | 15 mln | 1.1 bln | 1st | 31% | 1st | 23% |
| | Uranium | 7,351 | 1.7 mln | 2nd | 15% | 3rd | 13.7% |
| | Niobium | 7,100 | 1.6 mln | 2nd | 7% | 2nd | 9% |
| | Iron Ore | 54 mln | 6 mln | 6 mln | 6% | 6th | 0.9% |
| | Gold | 200 | 3,200 | 4th | 6% | 6th | 5% |

NATIONAL MINING STRATEGY

Canada's Critical Minerals Strategy (2022), supported by over C\$3.8 billion (\$3 billion) in federal funding, targets 31 minerals essential for economic security and climate goals⁵⁷. Structured around six pillars - geological mapping, project acceleration, infrastructure development, indigenous reconciliation, workforce training, and international partnerships - the strategy promotes private-sector leadership through incentives like flow-through shares, processing tax credits, and R&D funding⁵⁸. Canada aims for vertically integrated supply chains for batteries, EVs, and clean energy systems.

⁵⁷ <https://me.smenet.org/plan-to-invest-c3-8-billion-in-critical-mineral-production-introduced-in-canada/>

⁵⁸ <https://www.canada.ca/en/campaign/critical-minerals-in-canada/canadian-critical-minerals-strategy.html>

INVESTMENT CLIMATE

Canada offers a highly favorable environment for critical minerals, with federal and provincial incentives for sustainable mining projects. The National Instrument 43-101 (NI 43-101) sets the global standard for mineral project disclosure, mandating Qualified Person oversight and standardized reporting⁵⁹. Canadian exchanges (TSX/TSXV) raised over \$10 billion in mining equity capital in 2024, attracting over 40% of the world's public mining companies⁶⁰. Permitting delays on Indigenous lands remain a challenge.

⁵⁹ <https://mrmr.cim.org/en/standards/canadian-securities-regulatory-standards-for-mineral-projects/>

⁶⁰ <https://www.tsx.com/en/listings/listing-with-us/sector-and-product-profiles/mining>

INFRASTRUCTURE AND LOGISTICS

Canada's mining industry relies on robust logistics for transporting equipment, materials, and personnel to remote sites. Cold weather optimized transportation solutions, including heated rail networks, ensure year-round mineral shipments from northern operations. Canada's railways focus on resilience through proactive maintenance and technologies like distributed power and air braking. Excellent port access and well-developed rail and road networks facilitate exports to the U.S. and EU.

EXPLORATION ACTIVITY

Canada leads globally in exploration investment, with nearly 1,000 mining companies listed on the TSXV, supported by flow-through shares and a strong risk capital culture⁶¹. NI 43-101 ensures investor confidence through standardized reporting⁶². Strong geological data access and financing via TSX/TSXV make Canada a top destination for exploration.

⁶¹ <https://www.tsx.com/listings/sector-and-product-profiles/mining>

⁶² <https://www.pwc.com/kz/en/capital-markets/assets/executing-successful-listing-mining-kz-en.pdf>

4.3

CHILE

Resource Endowment and Geological Potential

Chile, the world's leading copper producer and second-largest lithium supplier, plays a pivotal role in the global battery metals market. Its vast brine-based lithium reserves in the Salar de Atacama account for nearly a quarter of global lithium output⁶³. Chile hosts two of the world's three largest copper mines, Escondida and Collahuasi, and Chuquibambilla, one of the oldest continuously running mines. Escondida produces over 1.2 million tonnes of copper annually, accounting for more than 5% of global output⁶⁴. Post-1990 reforms quadrupled copper output, with the private sector's share rising from 25% to 68%⁶⁵.

⁶³ <https://www.iea.org/policies/17958-national-lithium-strategy>

⁶⁵ <https://sustainablecopper.org/wp-content/uploads/2018/05/ICA-Summary-Documents-The-Impacts-of-Copper-Mining-in-Chile-FV-04.04.2018.pdf>

⁶⁴ <https://cimreviews.com/ranked-worlds-biggest-copper-mines/>

Figure 61.
Major Metals Production & Reserves in Chile, 2024

| Country | Key Minerals | Production (tons) | Reserves (tons) | Production Rank | Global Production Share (%) | Reserves Rank | Global Reserves Share (%) |
|---------|--------------|-------------------|-----------------|-----------------|-----------------------------|---------------|---------------------------|
| Chile | Copper | 5.0 mln | 190 mln | 1st | 23% | 1st | 19% |
| | Lithium | 44,000 | 9.3 mln | 2nd | 24% | 1st | 31% |
| | Molybdenum | 46,000 | 1.4 mln | 2nd | 18% | 4th | 9% |
| | Silver | 1,400 | 26,000 | 5th | 7% | 8th | 4% |
| | Gold | 37 | — | — | 1% | — | — |

NATIONAL MINING STRATEGY

Chile's National Mining Policy 2050 focuses on environmental stewardship, social inclusion, and innovation. The 2023 National Lithium Strategy emphasizes state-led development through majority public ownership, public-private partnerships (CEOL contracts), and direct lithium extraction (DLE) to enhance efficiency and reduce environmental impact⁶⁶. The strategy prioritizes Indigenous consultation, biodiversity conservation, and a public research institute for lithium technology.

INVESTMENT CLIMATE

Chile has a mature mining policy. The fiscal regime includes high royalties comprising of an ad-valorem component (1%) and an operating margin component (8%-26% for large mining companies), with a total tax burden cap upto 46.5%⁶⁷. Water scarcity and resource nationalism are challenges, but Chile's stable mining code and global copper leadership are strengths.

INFRASTRUCTURE AND LOGISTICS

Chile benefits from well-established ports and roads, facilitating efficient copper and lithium shipments. Specialized lithium transport infrastructure supports the growing lithium industry. Limited rail infrastructure is a constraint, but moderate energy costs and excellent port access enable exports to the U.S. and China.

EXPLORATION ACTIVITY

Chile's exploration ecosystem is concentrated among established players, with strong geological potential for copper and lithium. Regulatory uncertainty related to royalty reforms and nationalization debates has created investor hesitation. However, strategic exploration partnerships in lithium-rich salt flats and porphyry copper belts, led by state-owned Codelco, continue to attract investment.

⁶⁶ <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030>

⁶⁷ https://www.ey.com/en_gl/technical/tax-alerts/chile--new-mining-royalty-is-approved-and-ready-to-become-law

4.4

AUSTRALIA

Resource Endowment and Geological Potential

Australia, historically known for iron ore and gold, is a critical mineral superpower, leading global lithium production (over a third of global supply) from hard rock spodumene deposits in Western Australia. It hosts one of the most advanced REE supply chains outside China, anchored by Lynas Rare Earths Ltd⁶⁸. Australia's mining ecosystem is supported by a mature investment environment, JORC reporting standards, and deep capital markets via the ASX.

⁶⁸ <https://lynasrareearths.com/>

Figure 62.
Major Metals Production & Reserves in Australia, 2024

| Country | Key Minerals | Production (tons) | Reserves (tons) | Production Rank | Global Production Share (%) | Reserves Rank | Global Reserves Share (%) |
|-----------|--------------|-------------------|-----------------|-----------------|-----------------------------|---------------|---------------------------|
| Australia | Iron Ore | 930 mln | 58 bln | 1st | 37% | 1st | 29% |
| | Lithium | 88,000 | 57 mln | 1st | 37% | 2nd | 23% |
| | Uranium | 4,600 | 3.6 mln | 4th | 9% | 1st | 29% |
| | Copper | 800,000 | 100 mln | 7th | 3.5% | 4th | 10% |
| | Gold | 290 | 12,000 | 3rd | 9% | 1st | 19% |

NATIONAL MINING STRATEGY

Australia's Critical Minerals Strategy prioritizes sovereign supply chains, accelerated permitting, processing and refining capacity, and alliances with the U.S., Japan, and the EU⁶⁹. Financial instruments like the Critical Minerals Facility (\$4 billion) and NAIF (\$4.4 billion) support infrastructure and battery precursor production⁷⁰. States like Western Australia and Queensland implement tailored critical mineral roadmaps.

INVESTMENT CLIMATE

Australia has a transparent and investor-friendly mining regime with strong legal protections and tax incentives for exploration. The JORC Code ensures consistency and transparency in reporting⁷¹. Challenges include labor shortages and strict ESG compliance, but automated mining and transparent regulations are strengths.

INFRASTRUCTURE AND LOGISTICS

Australia has revolutionized mine-to-port logistics with automated heavy-haul rail networks, such as Rio Tinto's AutoHaul™ system, which operates driverless trains across 1,866 km of track⁷². Renewable-powered logistics, including hydrogen fuel cell trucks and solar-powered conveyor systems, enhance efficiency. Strong port access and low energy costs support exports to the U.S., Japan, and EU.

EXPLORATION ACTIVITY

Australia's ASX is a magnet for early-stage exploration firms, supported by grants, tax credits, and a transparent permitting regime. The JORC Code and strong geological data access de-risk projects and enhance investor confidence. High junior miner presence and very strong financing via ASX and private venture capital make Australia a global leader in exploration.

⁶⁹ <https://www.industry.gov.au/publications/critical-minerals-strategy-2023-2030>

⁷⁰ <https://www.exportfinance.gov.au/criticalminerals>, <https://www.naif.gov.au/>

⁷¹ <https://www.jorc.org/development/>, <https://crisco.com/>

⁷² <https://www.globalrailwayreview.com/news/136232/autohaul-network-connects-australian-iron-ore-mine-to-port/>, <https://www.progressiverailroading.com/railPrime/details/Rio-Tinto-finds-success-in-its-autonomous-freight-train-operation--70277>

4.5

INDONESIA

Resource Endowment and Geological Potential

Indonesia is a strategic player in the global critical minerals market, particularly in nickel and cobalt, with the world’s largest nickel reserves and substantial cobalt and copper deposits. It supplies over 50% of global nickel output and ranks among the top producers of coal, copper, gold, tin, and bauxite. Key projects include the Grasberg copper-gold mine and large-scale nickel operations in Kalimantan and Sulawesi. The 2020 raw nickel export ban boosted nickel export value from \$3.3 billion in 2017 to over \$33 billion in 2023.

⁴³ The exploration investment climate varies significantly across jurisdictions, reflecting differences in regulatory maturity, capi

Figure 63. Major Metals Production & Reserves in Indonesia, 2024

| Country | Key Minerals | Production (tons) | Reserves (tons) | Production Rank | Global Production Share (%) | Reserves Rank | Global Reserves Share (%) |
|-----------|--------------|-------------------|-----------------|-----------------|-----------------------------|---------------|---------------------------|
| Indonesia | Nickel | 2.2 mln | 55 mln | 1st | 59% | 1st | 42% |
| | Cobalt | 28 000 | 640,000 | 2nd | 10% | 3rd | 6% |
| | Copper | 1.1 mln | 21 mln | 7th | 4.8% | 10th | 2% |
| | Gold | 100 | 3,600 | 15th | 3% | 7th | 6% |
| | Tin | 50,000 | - | 2nd | 17% | - | - |

NATIONAL MINING STRATEGY

Indonesia's mining strategy focuses on resource nationalism and downstream industrialization. The 2020 nickel ore export ban promotes in-country processing, creating one of the world's largest nickel smelting clusters in Sulawesi and Halmahera. The Indonesia Battery Corporation (IBC), formed in 2021, oversees mining integration with cathode/anode production and EV battery manufacturing.⁷⁴ Incentives include critical mineral parks, tax holidays, and joint ventures with global firms, though environmental and social concerns persist.⁷⁵

INVESTMENT CLIMATE

Indonesia's Mineral and Coal Mining Law prioritizes domestic value addition through export bans and mandatory local smelting. Foreign investors may initially hold a controlling stake; however, current legislation requires a gradual divestment to at least 51% in favor of Indonesian participants. The specific timetable and divestment mechanism are set out in implementing regulations.⁷⁶ The fiscal regime includes a 22% CIT, royalties (4-19%), and VAT exemptions on mining equipment.⁷⁷ Policy unpredictability and infrastructure gaps are challenges, but low-cost nickel and EV battery hub ambitions are strengths.⁷⁸

INFRASTRUCTURE AND LOGISTICS

Indonesia benefits from strategic maritime access through ports like Tanjung Priok and Weda Bay. However, its archipelagic geography creates last-mile connectivity gaps in remote eastern islands. The government is investing in integrated "smelter islands" with processing plants, ports, and coal-fired power. Low energy costs and proximity to Asian markets are strengths, but port congestion and uneven rail coverage remain bottlenecks.

EXPLORATION ACTIVITY

Indonesia's exploration activity is primarily driven by the strategic focus on nickel and its role in the global electric vehicle battery supply chain. The government has prioritized downstream value creation through domestic smelting capacity, leading to concentrated exploration in several provinces. However, the junior mining sector remains relatively underdeveloped, with limited access to early-stage financing and institutional support. Regulatory opacity, overlapping authority between central and regional governments, and environmental permitting complexities continue to constrain broader exploration efforts.

⁷⁴ <https://www.indonesiabatterycorp.com/en/>

⁷⁵ <https://www.lowyinstitute.org/publications/future-indonesia-s-green-industrial-policy>

⁷⁶ <https://www.aseanbriefing.com/news/indonesias-mining-law-amendments-boosting-the-domestic-mineral-market/>

⁷⁷ <https://www.pwc.com/id/en/pocket-tax-book/english/pocket-tax-book-2024.pdf>

⁷⁸ <https://www.surialaw.com/news/investasi-asing-di-indonesia-kerangka-hukum-dan-tantangannya#:~:text=One%20of%20the%20most%20significant,and%20a%20lack%20of%20transparency>

4.6

KEY TAKEAWAYS

Kazakhstan's role as an emerging hub for critical minerals aligns naturally with global strategies to diversify and strengthen the resilience of supply chains. At the same time, a comparative analysis of leading mining countries—Canada, Australia, Chile, and Indonesia—indicates that, to sustain competitiveness, Kazakhstan should maintain a strong pace in implementing planned measures, consistently improve the regulatory environment, and support its financial ecosystem.

1. AN INTEGRATED, COHERENT STRATEGY FOR CRITICAL MINERALS

Unlike Canada's Critical Minerals Strategy or Chile's coordinated copper-lithium roadmap, Kazakhstan could develop a more focused national strategy that integrates exploration, processing, and international market positioning for specific rare and rare earth metals. The recently adopted Rare and Rare Earth Metals Development Plan is a strong starting point, and it should evolve into a focused critical minerals strategy, backed by KPIs, funding mechanisms, and industrial policy tools.

2. STRENGTHEN EXPLORATION INCENTIVES AND LICENSING CLARITY

Australia and Canada both emphasize transparent and investor-friendly geological data access, while Indonesia is actively streamlining permitting for downstream-linked investors. Kazakhstan could consider upgrading its exploration regime, promoting junior miners, and ensuring clear permitting pathways, especially for foreign capital.

3. UNLOCK DOMESTIC PROCESSING & DOWNSTREAM VALUE CHAINS

Indonesia's export policies and Chile's collaborative public-private approach to lithium governance highlight the significant value that can be unlocked by moving beyond raw material exports. For Kazakhstan, fostering investment in local beneficiation, refining, and midstream operations presents a strategic opportunity. This can be advanced through mechanisms such as public-private partnerships (PPPs), the AIFC, or other collaborative frameworks, helping to create a more attractive and stable environment for long-term growth.

4. LEVERAGE AIFC FOR GREEN FINANCE AND CAPITAL MARKET DEVELOPMENT

Kazakhstan stands out with the AIFC Green Finance Centre and the Astana International Exchange, those are two tools that can facilitate ESG-compliant investment into mining. These should be scaled up to support green-certified exploration, infrastructure, and junior miners, learning from Canada's TSX-V and Australia's ASX.

5. EMBED ESG, COMMUNITY, AND ENVIRONMENTAL STANDARDS EARLY

ESG risks, especially regarding labor, water, and biodiversity, are growing in visibility. Kazakhstan should continue advancing its ESG agenda by embedding international environmental, social, and governance standards, as well as best practices in tailings management, and align with global investor expectations.

6. ENHANCE INTERNATIONAL COOPERATION & BRANDING

Canada and Australia are embedded in global critical minerals alliances (e.g., U.S., EU, Japan). Kazakhstan should actively position itself as a trusted and responsible supplier, joining or initiating multilateral dialogues, and branding its critical minerals under a "clean and secure" origin label. Kazakhstan has the geological potential and institutional instruments (AIFC, strong mining law, state support) to become a regional leader in critical minerals. To fully capitalize on the evolving green industrial wave, this potential should be translated into globally competitive policy frameworks, streamlined regulation, and deeper international integration.

5

AIFC AS A STRATEGIC PLATFORM FOR MINING CAPITAL

SECTION SUMMARY

The AIFC can be positioned as a gateway for mining investment in Kazakhstan and the broader region. Leveraging English common law, green finance instruments, and a growing base of international investors, the AIFC can facilitate capital formation, joint ventures, and risk-mitigated project structures. Its regulatory flexibility and alignment with ESG standards make it an attractive platform for both domestic and foreign mining capital.

KEY INSIGHTS

- 1 English common law and investor-friendly regulations differentiate the AIFC from other regional financial hubs.
- 2 ESG alignment and climate disclosure integration make it relevant for sustainable mining finance.
- 3 The platform can de-risk early-stage exploration through blended finance and structured JV models.

KEY NUMBERS

307

Number of mining related companies registered at AIFC

85+

countries represented in the AIFC's investor and partner network

₸20.5 billion

registered companies contributed in taxes

5.0

AIFC AS A STRATEGIC PLATFORM FOR MINING CAPITAL

The Astana International Financial Centre has emerged as a transformative financial and legal hub that can positively influence and reshape the landscape of mining sector investments in Kazakhstan by providing a transparent, investor-friendly environment aligned with international standards. Established in 2018, the AIFC operates under an English common law framework that provides international investors with familiar legal protections while offering access to Kazakhstan's vast mineral resources.

The AIFC supports the mining sector in three primary ways. First, it provides legal certainty through the independent AIFC Court and International Arbitration Centre (IAC), which adjudicate complex disputes in accordance with internationally recognized standards. Second, it provides access to capital via the Astana International Exchange (AIX). Third, it offers a competitive corporate and tax framework with a preferential regime for participants and deal-structuring instruments.

5.1

THE AIFC JURISDICTION

The AIFC operates under a unique legal framework based on common law, distinct from Kazakhstan’s civil law system. It has its own civil and commercial codes designed to support international business, upheld by the independent AIFC Court and International Arbitration Centre, and regulated by the Astana Financial Services Authority (AFSA), ensuring a transparent, robust, and globally aligned environment.

By operating under a separate legal system based on English common law principles, the AIFC provides international investors with familiar legal protections while maintaining direct access to Kazakhstan’s mineral resources. This legal framework was established through a Constitutional law that grants AIFC special status within Kazakhstan’s legal system⁷⁹. The AIFC’s legal framework is particularly attractive to international mining companies with experience in common-law jurisdictions, offering clear mechanisms for corporate and contractual arrangements.

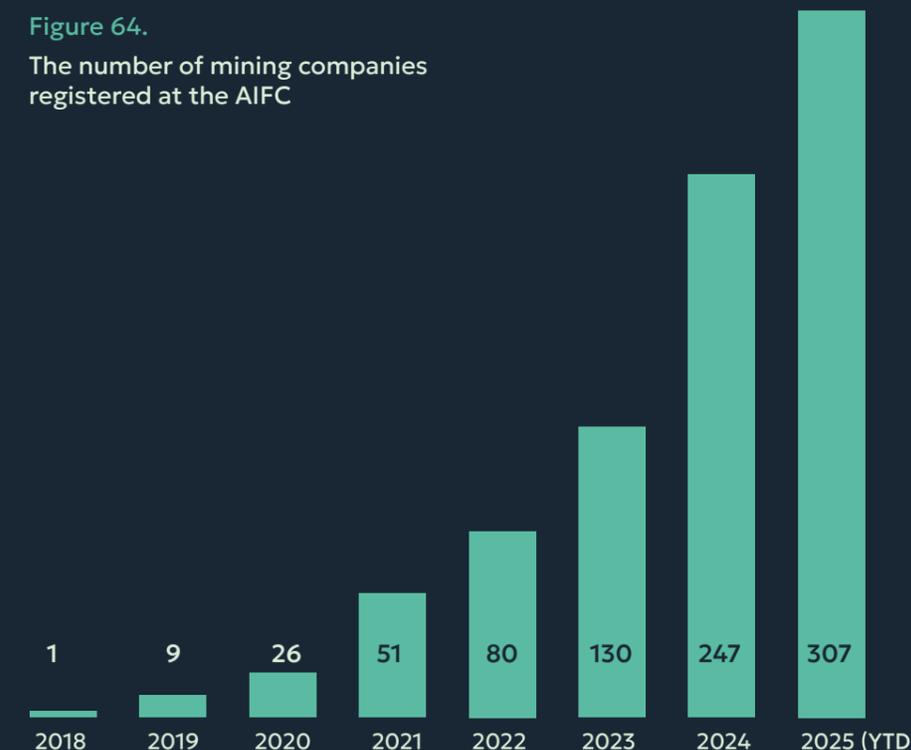
⁷⁹ <https://aifc.kz/legal-framework/>

MINING COMPANIES REGISTERED AT THE AIFC

The Astana International Financial Centre has emerged as a significant hub for mining industry participants in Kazakhstan, fostering investment and economic growth in the sector. As of now, 307 companies engaged in mining-related activities are registered with the AIFC, with a record 117 companies joining

in 2024 alone. These companies span various subsectors, including mineral extraction, exploration services, and asset management, contributing significantly to Kazakhstan’s economy through taxes, job creation, and foreign direct investment (FDI).

Figure 64.
The number of mining companies registered at the AIFC



These companies span 23 countries, underscoring AIFC’s growing role as a regional hub for mining investment and geological exploration. Local companies account for nearly half of all-mining related entities. This dominant domestic presence is complemented by significant foreign participation, particularly from Asian countries, which together contribute to a substantial 35% share (108 companies) of the total.

Figure 65.
The mining companies registered at the AIFC (by their origin)

| | Region | # of mining companies |
|---|-------------------------------------|-----------------------|
| 1 | Kazakhstan | 147 |
| 2 | Asia | 108 |
| 3 | Europe | 33 |
| 4 | Americas | 12 |
| 5 | Oceania | 6 |
| 6 | Middle East | 23 |
| 7 | Central Asia (excluding Kazakhstan) | 1 |
| 8 | Total | 307 |

Of the 108 Asian companies, 102 originate from China, highlighting the country’s active engagement in Kazakhstan’s mineral sector and broader regional interests in critical raw materials. In Europe, participation is more geographically dispersed, with companies primarily from the United Kingdom, Turkey, and Cyprus, as well as additional representation from Italy, Spain, Russia, Belgium, the Netherlands, Poland, and Bulgaria. All companies from Oceania

hail from Australia, one of the world’s leading mining economies. The Americas are represented by 12 companies, including those from the United States (6), Canada (3), and Brazil (1), indicating selective but strategic engagement by established mining jurisdictions. Within Central Asia, only one company from Uzbekistan is currently registered, suggesting untapped potential for increased regional collaboration through the AIFC framework.

According to E-Qazyna (Subsoil Use Platform) data, these companies hold 217 licenses: 211 for exploration and 6 for mining. The number of licenses is possibly lower than the number of registered companies, primarily due to the presence of holding or other financial structures, where parent companies operate through subsidiaries that hold and execute activities under the relevant licenses.

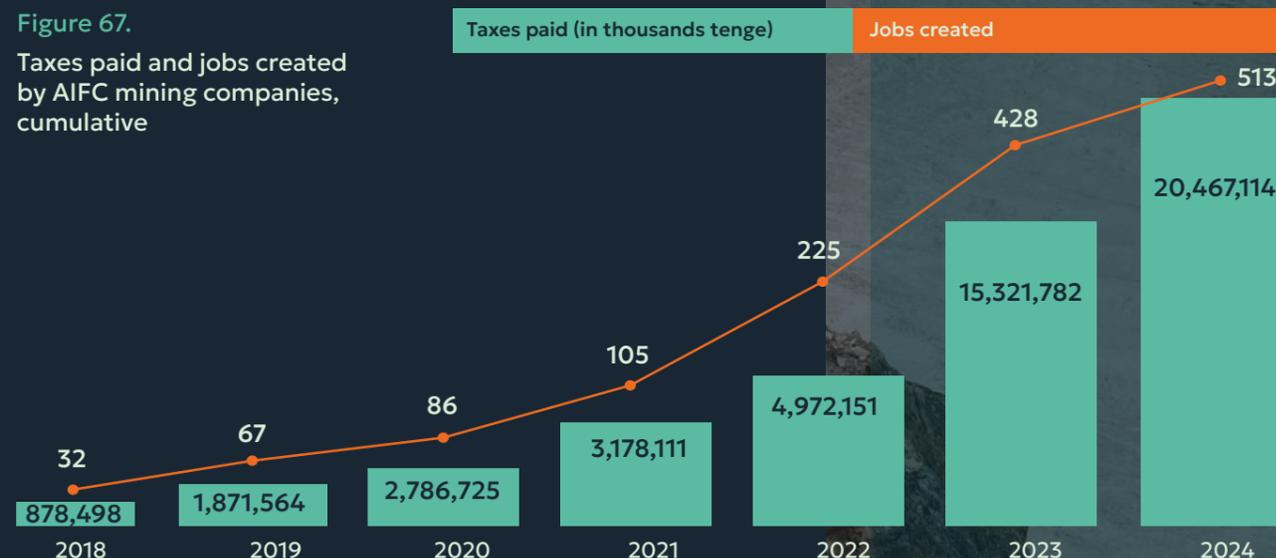
Figure 66.
The mining companies registered at the AIFC (by activity)

| | |
|---------------------------------------|-----|
| Mining companies | 193 |
| Exploration & Research | 71 |
| Holdings & other financial structures | 33 |
| Ancillary services | 10 |



Mining companies registered in the AIFC contributed a total of 20.5 billion KZT in taxes and created more than 500 local jobs. Among the top taxpayers there are Solidcore, Success Minerals Kazakhstan, MQ Emirates Group, Aurora Limited.

Figure 67.
Taxes paid and jobs created by AIFC mining companies, cumulative



AIFC COURT AND INTERNATIONAL ARBITRATION CENTRE

The AIFC Court, modeled after international commercial courts, offers an independent judiciary to resolve disputes involving AIFC participants. Operating under English Common

Law principles, the court ensures impartiality and expertise in handling mining-related disputes, such as contractual disagreements or royalty disputes. The

International Arbitration Centre (IAC), established in 2019, provides alternative dispute resolution through arbitration and mediation, offering flexibility and efficiency. These mechanisms reduce reliance on domestic courts, which may face perceptions of bias, thereby enhancing investor trust in the mining sector.

The AIFC Court and the

International Arbitration Centre have jurisdiction over a wide range of mining-related disputes, including EPC/EPCM (Engineering, Procurement and Construction) contracts, equipment supply, offtake contracts, corporate and shareholder disputes.

Figure 68. Statistics on judgements⁸¹



Complementing the court system, the AIFC International Arbitration Centre serves as an independent platform for resolving disputes outside of traditional courts. While designed to support AIFC-related matters, the IAC is also open to handling general commercial disputes, provided the relevant contracts specify it as the venue for arbitration.

⁸¹ <https://court.aifc.kz/judgments/>

The AIFC Court has exclusive jurisdiction, as provided by Article 13 of the AIFC Constitutional Statute⁸⁰, in relation to:

- a. any disputes arising between the AIFC's Participants, Bodies, and/or their foreign employees;
- b. any disputes relating to operations carried out in the AIFC and regulated by the law of the AIFC;
- c. any disputes transferred to the Court by agreement of the parties;
- d. the interpretation of AIFC Acts.

Typical disputes in the mining sector include:

- a. **commercial** – non-payment under exploration/geophysical services contracts, delivery delays, breaches of offtake agreements;
- b. **technical** – disputes over the quality and scope of exploration work, compliance with standards, and contractor qualifications;
- c. **investment** – disputes under investment or project agreements (e.g., stabilization clauses, JV/SPA, financing arrangements).

In addition to that, parties may file applications to the AIFC Court applying any law, whether it is common law or civil law, AIFC Law or otherwise, provided all of the parties to the case agree and the AIFC Court decides that it is appropriate for it to have jurisdiction.

The AIFC Court maintains a panel of internationally renowned judges with expertise in complex commercial matters, including several with specific experience in natural resources cases. The court's decisions are based on English common law precedents, providing

predictability that is particularly valuable for long-term mining projects. Importantly, AIFC Court judgments are enforceable in Kazakhstan under the constitutional framework while also being recognized in other common law jurisdictions.

The IAC operates under its 2022 Arbitration Rules, which are comparable to those used by leading international arbitration institutions⁸². These rules cover essential procedural aspects such as initiating arbitration, appointing arbitrators, requesting interim or emergency measures, consolidating cases, and including additional parties in proceedings. Notable features include:

- Internationally Renowned Arbitrators: The IAC maintains a global panel of highly respected arbitrators, including experts from the UK, EU, USA, China, and Hong Kong. The panel includes several prominent English King's Counsel, offering high-level expertise in dispute resolution.
- Modern and Flexible Processes: The IAC accommodates virtual hearings and emergency arbitration, promoting efficiency and adaptability. It also offers expedited procedures for cases requiring swift resolution.
- Digital Access through eJustice: Parties can submit and manage cases online via the IAC's eJustice platform, eliminating the need for physical presence in Astana.
- Enforcement Mechanisms: Under IAC rules, parties may apply via tribunal permission to the AIFC Court of First Instance for enforcement of interim orders or final awards. These decisions are recognized and enforced in Kazakhstan in the same way as national court rulings.

⁸⁰ <https://aifc.kz/legal-framework/constitutional-statute-of-the-republic-of-kazakhstan/>

⁸² <https://aifc.kz/tax-benefits/>

5.2

INVESTMENT INCENTIVES

The AIFC offers significant incentives for companies registered as Centre Participants, including exemptions from corporate income tax, value-added tax (VAT), and property tax until 2066.⁸³ However, these fiscal incentives are applicable based on the registered company's activity type (e.g., holding companies, SPVs), and subject to restrictions for mining activity.

Simplified visa procedures for foreign personnel and investment protection agreements further reduce operational barriers. These

incentives lower the cost of doing business and enhance returns on investment, making AIFC an attractive destination for global mining firms.

AIFC's legal and regulatory framework complements Kazakhstan's updated Subsoil Use Code, which streamlines licensing processes and adopts a first come, first served model for exploration rights.⁸⁴ This reform enhances access to critical mineral deposits, aligning with AIFC's goal of facilitating capital-raising for mining projects.

⁸³ Subsoil Use Code of the Republic of Kazakhstan - <https://adilet.zan.kz/rus/docs/K1700000125>

⁸⁴ https://cdn.solidcore-resources.com/upload/ib/696602/Solidcore_integrated_report_2024_en.pdf



SOLIDCORE REDOMICILIATION

Solidcore Resources Plc is Kazakhstan’s second-largest gold producer, with integrated operations across two major hubs: Bakyrchik/Kyzyl (Abai Region) and Varvara/Komar (Kostanay Region).⁸⁵ The company is also spearheading the development of the Ertis POX (Pressure Oxidation) facility, a critical metallurgical infrastructure project aimed at increasing gold recovery and strengthening Kazakhstan’s processing capabilities.

Solidcore underwent a strategic transformation in 2023, completing its redomiciliation from Jersey to the Astana International Financial Centre (AIFC). As part of this transition, the company designated the Astana International Exchange (AIX) as its primary listing venue, reinforcing Kazakhstan as its core jurisdiction. In line with its decision to exit the Russian market and consolidate operations within the AIFC’s legal and regulatory framework, the company delisted from the London Stock Exchange (LSE) in August 2023 and from the Moscow Exchange (MOEX) in October 2024. Solidcore’s move to AIX demonstrates confidence in the platform’s institutional

credibility, legal clarity, and robust market infrastructure.

Following its domiciliation and AIX listing, Solidcore rapidly expanded its project pipeline through high-potential acquisitions. In November 2024, the company entered into a definitive agreement to acquire a 55% controlling interest in the Syrymbet tin deposit, one of Kazakhstan’s most promising tin assets, for \$82.5 million.⁸⁸ In March 2025, it signed a staged acquisition agreement for a 100% interest in the Tokhtar gold project, located in northern Kazakhstan. The Tokhtar property boasts a JORC-compliant gold resource of 34.5 tonnes. Under the terms of the deal, Solidcore initially acquires a 51% stake for \$25 million in cash, with the remaining interest to be secured upon confirmation of additional reserves.⁸⁹

By refocusing on Kazakhstan’s top-tier mineral resources and aligning with the institutional strengths of the AIFC and AIX, Solidcore is executing a strategic pivot toward sustainable, locally anchored growth.

SOLIDCORE RESOURCES REDOMICILED TO AIFC: STRATEGIC LEAP FORWARD

Solidcore Resources Plc, formerly known as Polymetal, is Kazakhstan’s second-largest gold producer with a market capitalization of approximately \$1.8 billion. In recent years, the company has demonstrated robust financial health, in 2024 reporting \$1.37 billion in revenue and \$533 million in operating profit, reflecting an exceptional 40% margin. With 28 million tonnes of gold ore reserves, Solidcore maintains a solid resource base. Prior to its full divestment from Russian assets, the company ranked among the world’s top 10 gold and silver producers (#1 silver producer in Russia).

RUSSIA



1998 – founded by ICT Group of Alexandr Nesis, focusing on mining of precious metals in Russia

2005 – Nafta Moscow acquired controlling stake

2007 – 24.4% of shares went public through MOEX and LSE

2008 – Polymetal started acquiring assets in Kazakhstan

JERSEY



2010 – redomiciled to Jersey

2011 – issued new shares (\$770 mln), valuing company at \$5.6 bn

Free float reached 50%

Became first Russian origin company to be included in FTSE 100 index

KAZAKHSTAN



2023 – redomiciled AIFC, made AIX its primary trading venue

2024 – renamed to Solidcore Resources

Full exit from Russia, delisted from both LSE and MOEX

Maaden International Investment (Oman) holds 29.7% of shares, rest being free floated*

*as of June 30, 2025

REDOMICILIATION AND MARKET TRANSITION

In a landmark move in 2023, Solidcore redomiciled from Jersey to the Astana International Financial Centre (AIFC), underscoring the jurisdiction’s legal certainty and investor-friendly environment. This decision highlights the AIFC’s growing stature as a preferred venue for major mining companies. In 2024, Solidcore finalized its exit from the Russian market: the delisting from the London Stock Exchange occurred in August 2023, and from the Moscow Exchange in October 2024. Its August 2023 listing on the Astana International Exchange (AIX) formalized the pivot to Kazakhstan’s capital markets and established AIX as the company’s primary listing venue.

STRATEGIC EXPANSION UNDER AIFC JURISDICTION

Post-redomiciliation, Solidcore has accelerated its expansion strategy. In November 2024, the company acquired a 55% stake in the Syrymbet tin deposit for \$82.5 million, entering a high-potential segment of Kazakhstan’s mineral sector. In March 2025, Solidcore began a staged acquisition of the Tokhtar gold project, initially purchasing a 51% interest for \$25 million. The remaining stake is contingent on further reserve confirmation of the 34.5-tonne JORC-compliant resource.

AIFC’S ROLE IN ENABLING GROWTH

Solidcore’s successful redomiciliation and post-listing growth reinforce the AIFC’s role as a strategic platform for resource-based companies. With a common law framework, access to independent dispute resolution, and integration into global capital markets via AIX, the AIFC has provided Solidcore with the legal certainty, financial flexibility, and investor confidence necessary for a smooth transition and future-oriented expansion.

⁸⁵ https://cdn.solidcore-resources.com/upload/ib/696602/Solidcore_integrated_report_2024_en.pdf

⁸⁶ <https://www.solidcore-resources.com/en/investors-and-media/news/press-releases/08-08-2023/>

⁸⁷ <https://www.solidcore-resources.com/ru/investors-and-media/news/press-releases/15-10-2024/>

⁸⁸ <https://www.mining.com/web/solidcore-completes-acquisition-of-55-share-in-kazakhstan-tin-deposit/>

⁸⁹ <https://www.solidcore-resources.com/en/investors-and-media/news/press-releases/11-03-2025/>

5.3

FINANCIAL INFRASTRUCTURE AND ACCESS TO CAPITAL

Mining projects benefit from diverse financing options, including equity, debt, project finance, and Islamic finance, facilitated through AIFC-licensed institutions. The Astana International Exchange (AIX) allows mining companies to raise capital via public and private offerings, including green and sustainable finance instruments.

ASTANA INTERNATIONAL EXCHANGE

The Astana International Exchange, launched in 2017, is a cornerstone of AIFCs financial infrastructure, designed to develop robust capital markets in Kazakhstan and Central Asia. AIFCs partnerships with NASDAQ, the Shanghai Stock Exchange, and Chinas Silk Road Fund provide mining companies with access to a global investor base. By 2024, the AIFC has facilitated a total of \$14 billion in investments (consisting of \$6,7 billion in portfolio investments and \$7,3 billion from AIFC participants).⁹⁰

The AIX offers an efficient and flexible platform for dual

listings, enabling issuers already listed on recognized international exchanges to access Kazakhstan’s capital markets with minimal additional regulatory requirements. AIX’s alignment with global standards allows for the recognition of existing disclosures from exchanges such as the London Stock Exchange (LSE) and Hong Kong Exchange (HKEX), facilitating streamlined access to regional investors. The recent launch of a direct link between AIX’s Central Securities Depository and Nasdaq Dubai further strengthens its cross-border trading and settlement environment.

The AIFC has been developing a comprehensive financial ecosystem specifically designed to address the capital needs of mining projects at various stages of development. The centerpiece of this ecosystem is the AIX, which has become Kazakhstan’s primary platform for mining-related capital raising since its launch.

AIX offers mining companies access to both equity and debt capital markets through structures tailored to the industry’s specific characteristics. The exchange has developed specialized listing rules for exploration companies

⁹⁰ <https://aifc.kz/news/31-billion-raised-through-the-astana-international-financial-centre-in-2024/>

that accommodate their unique risk profiles and reporting requirements.⁹¹ These include modified market capitalization thresholds and alternative disclosure standards for mineral resource estimates that align with international reporting codes such as CRIRSCO.

The AIX Mining Company Rules are structured to maintain an appropriate balance between market accessibility for issuers and investor protection, taking into consideration the inherent risks and capital-intensive nature

⁹¹ <https://aix.kz/about-aix/rules-regulations/>

of the mining sector.⁹² In order to ensure transparency and credibility, issuers are required to demonstrate the presence of a management team with relevant industry experience, the engagement of appropriately qualified specialists and independent experts, and the submission of a Competent Person’s Report prepared in accordance with internationally recognized standards, specifically JORC, NI 43-101 or KAZRC.

The regulatory framework adopts a two-tiered structure to accommodate the diverse

⁹² <https://www-aix-kz.s3.eu-central-1.amazonaws.com/uploads/2020/09/9.-AIX-Mining-Company-Rules-Chapter-02.07.2019.pdf>

profiles of mining companies. Tier 1 is intended for larger issuers with more advanced operational and financial development, whereas Tier 2 is designed to support smaller or junior issuers in the early stages of exploration and development.

Figure 69. AIX Rules for Mining Companies

| Category | Tier 1 Mining Company | Tier 2 Mining Company |
|-----------------------|--|--|
| Definition | Has ≥ 50% interest in Mineral Project with proved reserves or measured resources | Does not meet Tier 1 Criteria |
| Reporting Standard | Must use either: <ul style="list-style-type: none"> JORC (2012) NI 43-101 (Canada) | Must choose one from list below: <ul style="list-style-type: none"> JORC (2012) NI 43-101 Kazakhstan Code (KAZRC) |
| Ownership Requirement | Must hold ≥ 50% interest in qualifying Mineral Project | No minimum ownership threshold |
| Technical Reporting | Required: Must show proved reserves of measured resources | Required: May show inferred resources or exploration data |
| Financial Capability | Must fund 18 months of planned work after listing | Must fund 12 months of planned work after listing |

KAZATOMPROM IPO

The 2018 IPO of Kazatomprom, the world's largest uranium producer, on AIX and the London Stock Exchange, raised significant capital and showcased AIFC's ability to support major mining companies.

The world's largest uranium producer raised \$451 million through its dual listing on AIX and the London Stock Exchange.⁹³ Kazatomprom's IPO demonstrated AIX's capacity to attract international institutional investors, and encouraged other mining companies to turn their sights on AIX, reinforcing the AIFC's position as a mining investment hub.

The IPO structure reflected careful consideration of both domestic and international investor needs. The offering utilized a dual-listing mechanism with AIX as the primary exchange and the London Stock Exchange as the international platform, ensuring access to global institutional investors while developing local market depth.

KAZATOMPROM: AIFC'S FLAGSHIP IPO WITH 4X SHARE GROWTH

Kazatomprom, the world's largest uranium producer, is one of Kazakhstan's most valuable national companies with a market cap of over \$11.2 billion, \$1.72 billion in operating profit and \$3.87 billion in revenue in 2024. With 25% free-floated on AIX and LSE, backed by Samruk-Kazyna (63%) and the Ministry of Finance (12%), the company is also active in rare metals production – beryllium, tantalum, and niobium.

LANDMARK IPO ON AIX & LSE

In 2018, Kazatomprom became the first Samruk-Kazyna company to launch a dual IPO on the Astana International Exchange (AIX) and London Stock Exchange (LSE), raising \$451 million and attracting strong demand from both local and global investors (15% stake, 47.5% domestic uptake, \$3 billion valuation). This IPO marked a breakthrough for Kazakhstan's capital markets.

A 2019 offering increased the free float to 18.72% (\$128 million), and a 2020 placement to 25% (\$206 million), totaling \$785 million. It issued \$233 million in KASE bonds (2019-2022) and \$200 million in AIX bonds (2024).

MARKET IMPACT

Kazatomprom's share price increased 3.70x since its IPO, from \$11.61 to over \$42.90 (as of June 27, 2025), demonstrating strong investor confidence and the effectiveness of the AIFC/AIX platform for national champions. Kazatomprom's IPO was a milestone for Kazakhstan's financial sector, showcasing AIFC's capability to host large-scale, global-standard offerings. Its long-term capital market success underscores AIX's growing role as a hub for resource-sector financing in Central Asia.



⁹³ <https://sk.kz/press-center/news/55401/?lang=en>

GREEN AND SUSTAINABLE FINANCE

ISLAMIC FINANCE OPPORTUNITIES

Beyond traditional equity offerings, the AIFC has developed innovative debt instruments for mining projects as well. The AIFC's sustainable finance platform has been particularly active, hosting Kazakhstan's first green bond issuance for mining activities in 2021. Tau-Ken Samruk, the national mining company, via AIX raised 18.4 billion tenge (\$40 million) through this instrument with proceeds dedicated to environmentally responsible copper production.⁹⁴ The bond structure incorporated coupon adjustments tied to measurable sustainability targets, such as water recycling rates and energy efficiency improvements.

AIFC's Green Finance Centre (GFC) has emerged as a regional leader in developing climate-aligned financing mechanisms. The center has created specialized sustainability-linked loan products that offer preferential terms for projects meeting defined environmental standards.⁹⁵ The GFC is currently the sole entity in Central Asia accredited by the Climate Bonds Initiative. Additionally, it is listed by the International Capital Market Association (ICMA) among recognised external review providers. The GFC conducts External Reviews in accordance with a range of internationally accepted frameworks, including the ICMA Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines.

Islamic finance represents another growing segment of AIFC's finance ecosystem. The Astana International Exchange under the AIFC successfully facilitated Kazakhstan's first locally issued Sukuk in December 2024.⁹⁶ The Ijarah structured Sukuk, issued by Gamma-T SPC Limited, a subsidiary serving coal mining operations, marked a milestone not only for Islamic finance but also for mining-linked fundraising within Central Asia. This transaction demonstrated the potential for Sharia-compliant structures in mineral development, particularly for projects seeking investment from Middle Eastern capital pools.

⁹⁴ <https://aix.kz/samruk-energy-raised-kzt18-4bln-through-offering-of-green-bonds-on-the-aix/>

⁹⁵ <https://gfc.aifc.kz/en/green-bonds-issuance>

⁹⁶ <https://aifc.kz/news/aix-issues-kazakhstans-first-sukuk/>

A JUNIOR SUCCESS: ARRAS MINERALS LEVERAGES MARKET ACCESS FOR GROWTH

Kazatomprom, the world's largest uranium producer, is one of Kazakhstan's most valuable national companies with a market cap of over \$11.2 billion, \$1.72 billion in operating profit and \$3.87 billion in revenue in 2024. With 25% free-floated on AIX and LSE, backed by Samruk-Kazyna (63%) and the Ministry of Finance (12%), the company is also active in rare metals production – beryllium, tantalum, and niobium.

The enabling regulatory environment has helped Arras Minerals fast-track its project pipeline while also supporting its ability to attract significant investment. Traded under the symbols "ARK" on the TSX Venture Exchange and "ARRKF" on the OTCQB, the junior miner raised about \$34 million through private placements, warrant exercises, and stock options.

In 2023 Arras Minerals formed a strategic alliance with Teck Resources (a leading Canadian mining company, world's top 10 copper producer). Under the partnership, Teck committed to fund a US\$5 million generative exploration program through 2025 and has the option to invest up to \$47.5 million per four designated projects to have the right to earn up to a 75% interest in each project.

The Arras story reflects robust investor confidence and highlights the company's effective use of available financing mechanisms.

5.4

GOVERNMENT COMMITMENT TO MINING SECTOR

The Government of Kazakhstan has taken significant steps to enhance the investment climate in the mining sector by updating its legal and regulatory framework. A key development was the adoption of the Subsoil and Subsoil Use Code (SSU Code), which introduced clearer procedures and established the “first-come, first-served” licensing principle.⁹⁷ This approach simplifies access to mining rights, especially benefiting exploration and junior mining companies.

The SSU Code, enacted on 27 December 2017 and effective from 29 June 2018, modernized the legal framework governing mining activities in Kazakhstan. It distinctly separates the regulation of solid minerals from hydrocarbons and uranium, which are governed under different contractual arrangements. The Code standardizes critical elements such as:

- Mineral ownership rules
- Access to geological data
- Licensing procedures
- Roles and responsibilities of state and local authorities

⁹⁷ <https://adilet.zan.kz/rus/docs/K1700000125>

One of the most impactful changes is the introduction of the “first-come, first-served” principle for granting exploration licenses, aligned with best practices used in jurisdictions like Western Australia. This has streamlined the licensing process for solid minerals, leading to the issuance of over 3,200 new licenses and fostering the growth of around 800 active junior exploration companies in Kazakhstan.

While exploration now mostly uses licenses, Kazakhstan still employs subsoil use contracts for production-stage projects or large strategic deposits. A subsoil contract is essentially an agreement between the state and an investor that outlines detailed obligations (often used for oil/gas and historically for big mines). These contracts can include negotiated terms on taxes, signature bonuses, and work commitments, but also come with stricter local content and social obligations by law. In mining, the shift has been toward standard licenses for

exploration and exploitation licenses for mining, but if an investor discovers a significant deposit, they typically transition from the exploration license to a mining contract with the government.

Kazakhstan has explicitly defined the development of critical minerals for green and high-tech industries as a national strategic priority, often framing it as the country’s contribution to the global energy transition. In the past few years (2020–2024), the government has rolled out roadmaps, agreements, and reforms to integrate Kazakhstan into global EV battery, renewable energy, and digital infrastructure supply chains.

A cornerstone document is the Concept for the Development of Kazakhstan’s Geological Industry, 2023–2027, together with its Action Plan. Pursuant to this Concept, the Government of Kazakhstan, by Resolution No. 1221 dated 28 December 2023,

approved the 2024–2028 Comprehensive Plan for the Rare and Rare-Earth Metals sector. This plan allocates KZT 2.4 billion (about 5.3 million USD) for measures to expand the resource base of critical minerals, introduce modern extraction technologies. A cornerstone document is the Concept for the Development of Kazakhstan’s Geological Industry, 2023–2027, together with its Action Plan. Pursuant to this Concept, the Government of Kazakhstan, by Resolution No. 1221 dated 28 December 2023, approved the 2024–2028 Comprehensive Plan for the Rare and Rare-Earth Metals sector.

The 2024–2028 plan also calls for modernizing existing processing facilities and establishing new ones. A tangible outcome is that in November 2024, Kazakhstan opened its first-ever tungsten concentrate plant (in collaboration with China’s Xiamen Tungsten/Jiixin company) in Almaty region – processing 3.3 million tonnes of ore per year to produce 65% WO₃ concentrate, with

a Phase 2 to produce 88.5% pure tungsten carbide on the horizon. Tungsten is critical for hard alloys used in wind turbines and cutting tools, so this fits the broader strategy of moving up the value chain. Kazakhstan’s roadmap aligns with its “Strategy for Achieving Carbon Neutrality by 2060”, which also emphasizes developing low-carbon technologies and the necessary raw materials

Within Kazakhstan’s investment landscape, the AIFC stands out as a special jurisdiction in Astana that provides a legal framework based on English common law. The AIFC provides an attractive platform to structure joint ventures or holding companies for mining projects.

Figure 70.
AIX Rules for Mining Companies

| | National Jurisdiction | AIFC Jurisdiction |
|---------------------------------------|---|--|
| Legal Framework | Mining activities governed by the Subsoil and Subsoil Use Code as well as other relevant legislation. | Acting Law of the AIFC. Mining activities governed by the Subsoil and Subsoil Use Code of Kazakhstan as well as other relevant legislation. |
| Licensing & Subsoil Access | Mining Licenses are issued by the Ministry of Industry and Construction: -Direct Licensing -Acquiring interests in existing license holders | No authority to issue subsoil use licenses. AIFC-registered entities can hold licenses issued under national law and act as holding/investment vehicles. |
| Foreign Ownership | No Foreign Ownership restrictions except for certain minerals. | No Foreign Ownership restrictions except for certain minerals. |
| Tax Regime | General provisions of the Tax Code. Production Sharing Agreement (if applicable) | General provisions of the Tax Code. Production Sharing Agreement (if applicable) 0% CIT, 0% VAT, 0% dividend tax for AIFC-registered firms according to the Constitutional Statute. |
| Dispute Resolution | Disputes handled in Kazakhstan's civil courts. International investors may use BIT arbitration. Access AIFC Court with agreement of both parties. | Disputes can be resolved by the AIFC Court or International Arbitration Centre (IAC). |
| HR and Migration | Standard visa, labor permit, and local content requirements apply. | Simplified visa and relocation procedures for AIFC participants and foreign staff via Expat Centre |

The mining sector, a cornerstone of Kazakhstan's economy due to its vast reserves of critical minerals like uranium, rare earth elements, and other metals, benefits significantly from AIFC's ability to provide access to global capital markets, streamlined regulations, and sustainable finance solutions.

The mining sector is a pillar of Kazakhstan's economy: substantial reserves of uranium, rare earth elements, and other metals underpin strong growth potential. Achieving the ambition to join the ranks of leading suppliers of critical minerals requires a mature financial and institutional environment.

The AIFC plays a pivotal role by providing a stable, transparent, and globally integrated platform for capital formation, dispute resolution, and regulatory clarity, complementing national mining reforms and aligning global investor expectations with Kazakhstan's mineral potential.

As of July 2025, the AIFC has helped attract more than \$15 billion in investment to Kazakhstan's economy, a significant share of which has flowed into the mining sector. This strategic engagement strengthens Kazakhstan's critical-minerals supply chain and supports global demand for clean-energy technologies, reinforcing the country's role in the international minerals market.



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